

Title: 360° Videos In A Vr Environment - A Randomized, Multicenter Pilot Study To Assess State of Mind, Technology Affinity, And Motion Sickness in Seniors In Long-Term Care Facilities

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Context: VR as an application to increase well-being is sparsely researched in the elderly population. The aim of the pilot study was to analyze the effect of 360° videos with regional (e.g. tradition in the Ore Mountains) and international reference (e.g. Kenya National Park) on the state of mind of seniors in care facilities. In addition, technology affinity and potential motion sickness were recorded. **Methods:** The VR experience was used to complement existing social care services in three nursing homes in eight subjects from November 2020 to January 2021. Mood state was assessed before and after the intervention using the Happiness and Satisfaction Scale (ISSP). Demographic data and technology acceptance were collected before the intervention. After the intervention, subjects were asked about confounders and side effects, and staff were asked about the ease of use of the system and the organizational design of the implementation. **Results:** There was a positive effect on mood state. Gender and spatial mobility proved to be influential factors. Videos with people, animals and actions achieved the highest increases in state of mind. Interest in using technical devices correlated negatively with the change in state of mind. None of the subjects found the VR goggles distracting or reported motion sickness. Ease of use was described as very good by the staff. **Conclusion:** Due to the Corona pandemic and limited access to subjects, the a priori planned number of cases was not achieved. A very high willingness to use this technology was found among caregivers and residents. The trends of the positive effect of 360° videos on

well-being as well as the influence of different subjects should be verified in further studies with larger samples to empirically validate the use of this technology to increase quality of life.

Biography

I first studied Nursing Management (Diploma) until 2009 and graduated with a Master of Public Health (MPH) in 2012 from TU Dresden, Germany. In 2017, I then earned a doctorate in health sciences. Since 2009, I was employed as a senior manager of private nursing companies for 9 years. Since 2018, I have been a professor of healthcare management at the University of Applied Sciences Zwickau, Germany. My teaching areas include the topics of interorganizational optimization of vertical and horizontal care structures horizontal care structures, patient demand planning and management of underuse, overuse, and misuse, and service management. Several publications in renowned journals are available (<https://orcid.org/0000-0003-1122-2226>).