

OTs' Experiences With and Perceptions of the Use of Virtual Reality Technology During Treatment

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Virtual reality (VR) is a popular and accessible tool for use in healthcare, especially in physical rehabilitation settings, such as occupational therapy (Ma et al., 2018). VR is a computer-created, immersive experience that lets people interact with a three-dimensional (3D) world that creates a physical, mental, and sensory experience (O'Boyle, 2019). VR mimics real-world situations and can create tailored challenges for patients in a safe and controlled environment. Research is emerging regarding improvements in client motivation, social validity, range of motion, and functional mobility with the use of VR as a treatment tool (Jung & Choi, 2016; Shin et al., 2016).

PURPOSE: Most research surrounding VR lacks large sample sizes and demonstrates that there is a lack of accessibility to VR within the rehabilitation setting (Langan et al., 2018). This contributes to a lack of statistically significant findings. Given the emerging status of the evidence on VR, the purpose of this study was to better understand how occupational therapists (OTs) and occupational therapy assistants (COTAs) perceive VR and whether or not they have and/or would integrate VR into practice.

DESIGN: A descriptive, quantitative, non-experimental survey-study was used to understand OTs and COTAs experiences and perceptions of the use of VR in practice.

METHOD: 22 participants were recruited via social media, and were adult OTs or COTAs practicing in the USA. No genders, races, or ethnicities were excluded. Participants completed a 24-item survey.

RESULTS: Almost half (45%, $n = 10$) of participants reported using VR in practice and those who didn't have access to VR technology, proper training and funding were barriers to using VR in practice. Whether they used VR or not, participants endorsed VR as being related to positive outcomes such as increased motivation ($n = 10$) during therapy sessions, and improvement performing ADLs and IADLs ($n = 7$). Perceived potential negative outcomes endorsed included blurred vision ($n = 1$), headache ($n = 2$), dizziness ($n = 3$), other ($n = 3$) and no negative outcomes ($n = 6$). Of the 12 (55%) participants that reported not using VR in their practice, 83% ($n = 10$) indicated they would be willing to use VR if training were made available within their clinic. 82% ($n = 18$) of the total participants reported that they are willing to use VR within their practice.

CONCLUSION: Findings suggest that OTs and COTAs who use VR with their clients reported few to no negative side effects, and the majority of participants saw VR as a positive and helpful tool in practice, with major barriers including lack of access to training and technology. Results should be interpreted with caution due to the small sample size which limits generalizability.

IMPACT STATEMENT: Future research can examine addressing barriers and quantifying clients' progress with VR. This information can be used by OTs to seek out training related to incorporating VR in practice and document clients progress (or lack thereof) to help clarify the benefits and drawbacks of VR in practice.

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