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Virtual Reality in healthcare education, therapy and care

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Abstract

The rapid evolution of Virtual Reality (VR) technologies has instigated transformative changes in healthcare education, therapy, and patient care. This presentation provides a comprehensive overview of our suite of VR applications, created for an array of users encompassing medical practitioners, students, patients, therapists, and children with neuropsychiatric conditions. Our research, conducted across several medical universities, offers compelling evidence of VR's effectiveness in medical education. Students using VR for lung and heart auscultation training outperformed their counterparts learning via traditional methods in long-term knowledge retention and skill application. Parallel to this, we embarked on an extensive project exploring the utility of VR for children with autism spectrum disorder (ASD) and other neurodevelopmental disorders. Over 36 intensive sessions, our VR application demonstrated significant potential in enhancing essential skills such as visual tracking, pointing accuracy, and reading line retention. A noteworthy increase in parental involvement and children's engagement was also observed. These findings strongly endorse the transformative power of VR technology across healthcare spectrums. While the promising results spotlight VR's instrumental role in augmenting healthcare outcomes, they also emphasize the need for continuous research and development to further refine these digital tools. By harmonizing our dedication to innovation with meticulous scientific examination, we aim to continually enhance VR's contribution to healthcare.

Keywords: Autism Spectrum Disorder, Neuropsychiatric Conditions, Student Engagement, Virtual Training