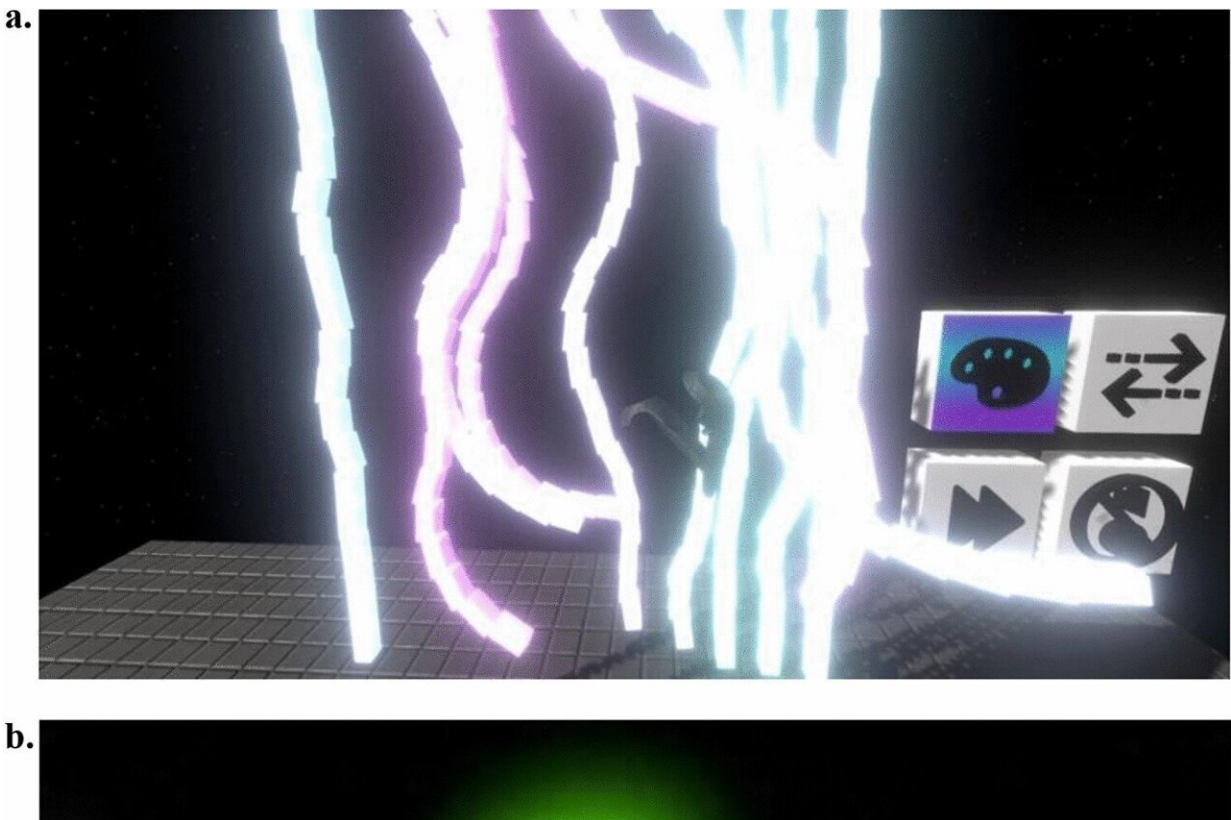


VR technology can improve anxiety and depression in adults with disabilities

January 20 2023



Evenness VR Sensory Room: Screen shots of interactive spaces from the user perspective. (a) light curtain with color change option and (b) interactive piano).
Credit: *Scientific Reports* (2023). DOI: 10.1038/s41598-022-26100-6

A world first study led by Western Sydney University has found significant improvements in anxiety, depression, and sensory processing

in adults with disabilities following the use of new Evenness Virtual Reality (VR) Sensory Space technology.

Published in *Scientific Reports*, the study revealed the immersive Evenness VR Sensory Space with interactive sight, sound, and touch experiences had improved outcomes for adults with neurodevelopmental disabilities including autism and [intellectual disability](#).

The five-month preliminary study involved 31 adults with varying neurodevelopmental disabilities and their caregivers to evaluate the viability and health benefits of the Evenness VR technology as an effective intervention tool.

Co-lead researcher Dr. Caroline Mills from Western Sydney University's School of Health Sciences and Translational Health Research Institute, says the promising application of immersive VR in the disability sector has exciting potential to inform new practices for organizations who support people with a neurodevelopmental disability.

"Our findings have shown that VR technology may offer a promising avenue for the provision of sensory interventions and an effective calming tool, with the most prominent benefit reported by users being a reduction in anxiety," said Dr. Mills.

Professor Danielle Tracey, co-lead author from Western Sydney University's School of Education and Translational Health Research Institute, says the Evenness VR Sensory Space could have effective application as a clinical intervention.

"Given the preliminary nature of this study, we are pursuing more robust future study designs to better understand the benefits and ensure the program can be used in real life environments to support the people that need it," said Professor Tracey.

The study was conducted in collaboration with researchers from the University of Wollongong, in partnership with The Disability Trust, and tech company Devika.

Ken Kencevski, Managing Director of Devika, says the findings significantly support the evolution of the program.

"Dr. Mills and the team have allowed us to improve and validate Evenness Sensory Space as we look to increase its positive impact to individuals, centers and communities around Australia."

More information: Caroline J. Mills et al, Evaluating a virtual reality sensory room for adults with disabilities, *Scientific Reports* (2023). [DOI: 10.1038/s41598-022-26100-6](https://doi.org/10.1038/s41598-022-26100-6)

Provided by Western Sydney University

Citation: VR technology can improve anxiety and depression in adults with disabilities (2023, January 20) retrieved 3 May 2023 from <https://medicalxpress.com/news/2023-01-vr-technology-anxiety-depression-adults.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.