

Virtual and augmented reality promising for neurodevelopmental disorders

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For adults with neurodevelopmental disorders, preliminary findings

reveal a positive impact of virtual and augmented reality on functional performance, according to a review published online Dec. 14 in *Frontiers in Psychiatry*.

Bing-Lee Tan, from the Singapore Institute of Technology, and colleagues conducted a systematic review to assess use of virtual reality or augmented reality technology among adults with [neurodevelopmental disorders](#) and the impact of virtual or augmented reality technology rehabilitation programs.

Thirty-eight studies met the inclusion criteria; three studies used augmented reality, and the remainder used [virtual reality](#). The researchers found that the virtual scenarios were displayed in different ways, including as head-mounted displays, computer screens, [mobile devices](#), and cave rooms. Features such as [speech recognition](#), eye tracking, and a motion-capture device were used in a few studies to provide real-time feedback to participants during rehabilitation.

Interventions that addressed community living were reported in 11 studies, while 15 studies addressed vocational skills, and nine trained participants in social skills or social cognition. Using virtual scenarios to expose participants to various situations was employed in three studies to improve quality of life. Most studies reported preliminary promising results; improvement was demonstrated in the functional domains addressed. Small sample sizes were reported in several studies and many studies had a serious or critical risk for bias.

"There is potential to harness the useful features of virtual and [augmented reality](#) and integrate other technology to enhance treatment outcomes," the authors write.

More information: Bhing-Leet Tan et al, The use of virtual reality and augmented reality in psychosocial rehabilitation for adults with

neurodevelopmental disorders: A systematic review, *Frontiers in Psychiatry* (2022). [DOI: 10.3389/fpsy.2022.1055204](https://doi.org/10.3389/fpsy.2022.1055204)

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