

Effective fear of heights treatment using a smartphone virtual reality app

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A fully self-guided treatment using virtual reality (VR) is effective in reducing fear of heights. A team of researchers from Vrije Universiteit Amsterdam (VU) and the University of Twente, led by Dr. Tara Donker, developed ZeroPhobia, a treatment delivered through a smartphone app and a basic VR viewer. The results of the study were published in *JAMA Psychiatry*.

Two to five percent of the population suffers from fear of heights. Through the use of ZeroPhobia, which is based on [cognitive behavioral therapy](#) (CBT), fear of heights symptoms can be significantly reduced, the study finds. VU-researcher Tara Donker: "We can now offer CBT for treating phobias without the intervention of a therapist, using only a smartphone and a VR viewer costing less than less than a few coffees from Starbucks."

Effective Treatment For Different Phobias

CBT treats phobias, like fear of heights, by finding ways to safely put people near the object or in the situation that they fear. Donker: "In this [treatment](#), people are gradually exposed to their fear in a virtual environment. They can be standing on a high balcony in a theater or on top of a building, for example. Step by step, they learn to deal with their fear and how to reduce it. An interesting aspect of VR is that because people know it is not real, they are also more willing to try new things out. And because the treatment is entirely gamified and animated, they may even enjoy it. The knowledge we have gained from developing this

fear of heights treatment, opens the door for also developing treatment for other types of phobias such as fear of flying, spiders, or claustrophobia."

Cost Reduction

The study shows that it is possible to deliver safe treatment at a fraction of the cost of existing alternatives, and in a very accessible way. Now, people who are currently unable to afford treatment or who are reluctant to approach a therapist, can receive treatment as well. Donker: "You can work with ZeroPhobia without having to leave your house or having to make appointments with a therapist. This brings treatment within reach of a much larger number of people. We already knew that VR can be very effective for treating phobias like fear of heights. With our study, we show that it is possible to develop an encompassing and [effective treatment](#) without needing expensive equipment. I think that ZeroPhobia shows that stand-alone applications can contribute to keeping healthcare affordable and contribute to the quality of our healthcare systems in important ways." The ZeroPhobia app is available in [Google Play](#) and [App Store](#).

More information: Tara Donker et al, Effectiveness of Self-guided App-Based Virtual Reality Cognitive Behavior Therapy for Acrophobia, *JAMA Psychiatry* (2019). DOI: 10.1001/jamapsychiatry.2019.0219 , jamanetwork.com/journals/jamap...cle-abstract/2728184

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