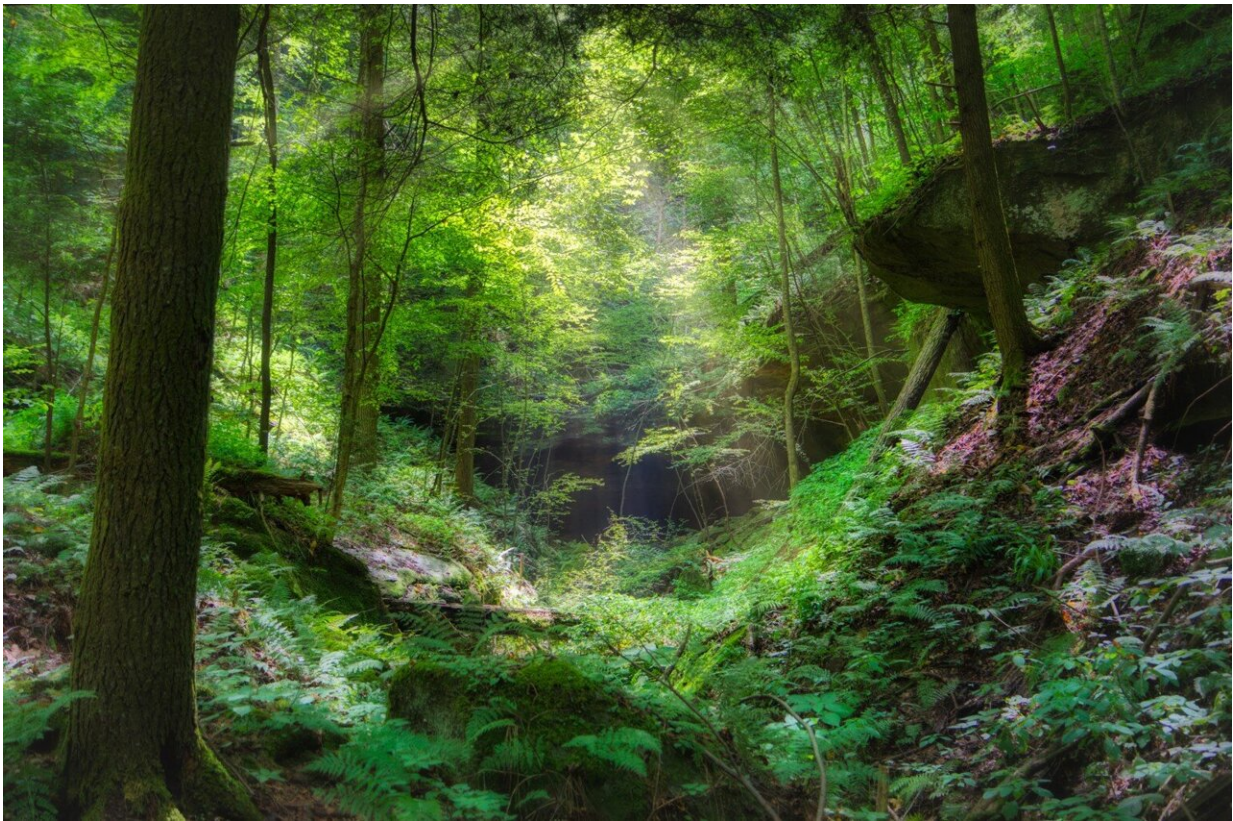


Front-line workers find stress relief viewing nature in VR headsets

February 11 2022, by Bob Yirka



Tranquil Virtual Reality Nature Preserve. Credit: Matthew Love, CC-BY 4.0 (creativecommons.org/licenses/by/4.0/)

A team of researchers from Ohio University Heritage College of Osteopathic Medicine, OhioHealth Healthcare Organization and Ohio

University has found that people can relieve stress by viewing nature scenes using virtual reality headsets. The group has published their research in the open-access journal *PLOS ONE*.

Noting that prior research has shown that people experience lower heart rates and [blood pressure](#) and reductions in the production of cortisol, a stress hormone, when exposed to nature, the researchers wondered if that might be the case for simulated nature settings. More specifically, they wondered if nature simulations might reduce the stress of people working in [medical facilities](#) during the pandemic. To that end, they recruited 102 front-line workers from three COVID units in hospital settings. Each wore a VR headset and watched a three-minute video of a lush green nature setting. Notably, the VR headsets allowed the wearers to turn their heads to look around at the scenery as if surrounded by trees, flowers or flowing water—and to hear the sounds of birds, the breeze or water rippling. Each of the volunteers was also queried about their stress levels before and after watching the video.

The researchers found that on average, the volunteers rated their stress level an average of 5.5 on a 1 to 10 scale before watching the video. That number dropped to just 3.3 after watching the video. They also noted that those volunteers who reported stress levels above 6.8 prior to watching the video fell from 32.4 percent to just 3.9 percent after watching the video. The researchers also found that the reported reductions in stress were reported regardless of gender, age or experience with virtual reality systems.

The researchers suggest nature-based VR could be a relatively easy and inexpensive way for hospitals and other healthcare facilities to reduce [stress](#) in caregivers. But they also acknowledge that more work is required to ascertain whether watching nature via VR has a lasting impact.

More information: Elizabeth Beverly et al, A tranquil virtual reality experience to reduce subjective stress among COVID-19 frontline healthcare workers, *PLOS ONE* (2022). [DOI: 10.1371/journal.pone.0262703](https://doi.org/10.1371/journal.pone.0262703)

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