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Bowen (<https://www.tektonikamag.com.au/index.php/author/sw-55667/>)

24/08/2017



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4 ways virtual reality in healthcare is coming to life

Futurists have raved about the potential of using virtual reality in healthcare for decades. But much like the paperless office, the patient or doctor hooked up to a headset never quite materialised. The tech was just too primitive, too pricey, or too clunky.

Until now.

It's been more than a year since Zuckerberg dropped the Oculus Rift. It, along with similarly affordable and user-friendly devices from Google, HTC, Samsung, and Sony, is now used to improve the lives of those with physical or mental health issues. Here's how.

1. You can show patients the pretty pictures

There's currently no cure for the memory-obliterating curse of dementia. It's estimated that around 354,000 Australians suffer from dementia

(<http://www.techrepublic.com/article/how-virtual-reality-is-transforming-dementia-care-in-australia/>), and 1.2 million people play a role in caring for them, according to the Australian Institute of Health and Welfare and Alzheimer's Australia. However, marking a big step forward, the Victoria-based company Build VR has developed the Solis VR unit, a Gear VR headset aimed at aged-care facility residents. (Even if they aren't dementia sufferers, many residents feel ignored and bored.)

After road testing more than 100 VR experiences at facilities in Victoria, the five most popular—adventure, animals, aquatic, relaxation, and travel—were loaded onto the Solis. Residents are, at the very least, entertained by the immersive experience (<https://www.tektonikamag.com.au/index.php/2017/06/11/bffe-you-me-and-immersive-experience-technology/>). There's anecdotal evidence (clinical trials are some time away) that the experiences can pacify distressed residents and prompt otherwise nonresponsive residents to talk about what they are experiencing and remember events from their life.

2. Guide others to their happy place

Being a cancer patient involves a lot of waiting around. Time is often spent thinking unhelpful thoughts about the unpleasantness of the treatment about to be undertaken or, worse, the possibility it could prove pointless. In response, Sydney-based VR content and production studio Start VR has teamed up with Samsung and cancer-treatment centre Chris O'Brien Lifehouse to help patients swap melancholy musings for joyful jaunts.

Patients strap on a Samsung VR headset and experience skydiving from a plane, petting koalas, or snorkelling through azure waters. While there's no hard data yet about the effects, Chris O'Brien Lifehouse staff believe the experiences help patients control their anxiety (<https://www.gizmodo.com.au/2017/03/using-virtual-reality-as-distraction-therapy-for-cancer-patients/>) and keep their spirits up.

3. Therapists can expose fears—virtually

Exposure therapy is an effective way of treating anxiety disorders. Its drawback is the difficulty and danger involved in exposing someone to their fears, like spiders, heights, or germs. Of course, if the spiders, heights, or germs are virtual (while seeming realistic), things get a lot easier.

Enter the Sydney Phobia Clinic, a VR phobia treatment clinic that opened in late 2016. The clinic builds proprietary simulations (<http://www.smh.com.au/technology/technology-news/clinic-makes-real-life-less-scary-by-letting-you-face-fears-in-virtual-reality-20161107-gsjrj3.html>) featuring, for example, visuals of a dentist office coupled with the sound of a drill approaching that run on standard VR headsets. Pieter Rossouw, manager of the clinic, observed, “In the past, the way that therapists would do therapy is they would get someone to imagine they were in the scenario. Here, we can really bring that situation to life.”

4. Gamify practice and save that extra life

The days of doctors burying their mistakes are ending. Like pilots, would-be surgeons are now logging long hours in simulators before they're entrusted with real lives. Students at Melbourne University have access to a VR Surgical Simulation laboratory (<http://medicine.unimelb.edu.au/research-groups/surgery-research/virtual-reality-surgery-simulation>), partly funded by both Cochlear and the US Airforce. At the lab, medical students are immersed in a 3D world where they can touch and operate on a virtual patient. Indeed, using virtual reality in healthcare is old news at Melbourne University. The team behind the lab developed an award-winning VR ear surgery simulation way back in 2008.

The long-predicted VR healthcare revolution is still in its infancy. But given it looks set to eliminate labour-intensive grunt work and slash costs, it's well worth considering jumping onto the early adopter bandwagon

(http://www8.hp.com/au/en/products/monitors/index.html#!tab=features?jumpid=sc_n7sucp82he) if you're involved in healthcare IT.



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