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How Virtual Reality is Improving Empathy Between Healthcare Professionals and Patients

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Researchers, health organizations, and medical professionals alike have all come to realize the benefits of VR - particularly the impact it has on the relationship between doctors and patients. The ability for physicians to fully understand and relate to patients' experiences has always been a significant roadblock in healthcare. [Numeric rating scales](#) or visual analogue scales are used to assess the intensity of pain, but these are often too arbitrary or subjective to be wholly accurate.

As a solution, immersive VR allows medics to see the world through the eyes of the patients themselves. It can also let medical students vicariously play the role of healthcare providers.

Here's how VR is improving empathy between healthcare professionals and patients:

Vicarious experiences

VR technology shares the same basic mechanism as the brain. The brain essentially makes an [embodied simulation](#) of the body in the world, and uses this simulation to depict and prepare its responses. Similarly, VR stimulates sensory receptors in users to make new neural passageway connections - these then influence a person's decision-making ability once the simulation ends.

VR solutions from companies like Oculus and Sony enable doctors to experience specific symptoms and conditions for themselves. For example, doctors can now watch and participate in a [3-D video](#) as a patient suffering from dementia. In the simulation, they can hear the conversations from the patient's family going on around them and, even more impressively, they can [hear the thoughts](#) of the patients' they embody using VR. This is arguably the closest medical professionals have come to truly comprehending how patients feel.

In some cases, VR additionally let's doctors interact with their projected environment as a patient. For instance, they could lean towards certain sounds in the VR video in attempts to hear better - just as they would in real life. They can move their bodies and experience visual or auditory inputs just as someone with dementia would. This type of interactive simulation means doctors don't merely report on a condition, they live it.

Training purposes

VR is not only facilitating heightened empathy in existing medical practices, it's also supporting a new generation of doctors in their work. The technology is being utilized in training sessions and medical lectures to prepare physicians for a number of scenarios. One of the most promising fields is integrating VR software that allows medical students to empathize with older adults. Wearing headsets, medics can grasp levels of discomfort that surface with age-related diseases such as high-frequency hearing loss and [macular degeneration](#).

In fact, studies have [proven](#) that VR enhances students' understanding of age-related health problems that affect vision and hearing, and Alzheimer's disease. There is also evidence that VR increases students' ability to empathize with older patients on a first-hand basis.

Another way that VR is driving empathy for training purposes is by staging difficult conversations that doctors will need to have with patients and their families. Scenarios are being constructed where doctors have to practice giving news about terminal illnesses or end-of-life steps. By witnessing people's responses, doctors can tailor their delivery to be more considerate and prevent overly distressing scenes.

Long-term industry impact

It is important to recognize that virtual reality is not intended to prompt emotions from medical staff using the technology. Instead, VR can help professionals' harness perceived emotions to change how they act in the real world.

Still, there are further developments necessary for VR to be widespread throughout the medical sphere. The impact of the solutions is mostly self-reported by users, so there is a need for processes that autonomously analyze participants' behaviors within simulations - and subsequently produce more objective data.

That is not to undermine the progress that is already underway with VR in healthcare. The empathy earned from early experimentation can lead to VR solutions of its own. By having a clearer insight into patients' perceptions, tailormade VR platforms can be built to promote coping mechanisms and even rehabilitation - bridging the gap between patients and professionals for good.

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