

THERAPEUTIC VR: CASE STUDY CANCER PATIENT

BACKGROUND

Virtual Reality (VR) is a new technology with an array of applications. It has the potential to change many industries and make our lives easier and more fulfilling. With VR, we can change our current environment to fit our needs, or simply escape from our surroundings.

One of the applications we are using VR for is coping with pain, stress, and anxiety. Pain has a psychological component to it that only has recently been addressed with VR. Distraction has been found to take a patient's attention away from the pain and anxiety associated with injury or disease.

Attention given to pain often determines the level of anxiety, stress and pain a person feels. By encouraging a patient to focus his or her attention on other thoughts, less attention is given to the pain and anxiety.

Studies have shown that giving a patient VR technology reduces their level of pain, stress, and anxiety before, during, and after medical procedures such as physical therapy, bandage change, dental surgery, and chemotherapy.

In this study, we looked at how VR helps patients who are undergoing chemotherapy. In hospitals, patients tend to sit and wait for long periods of time with nothing to do but stress about unknown outcomes.

Virtual Reality gives patients a distraction and can keep their spirits up, instead of focusing on the negative emotions. VR allows doctors and nurses to give a patient a well-rounded treatment and deal with the mental side of wellness, not just the physical.

THE PROBLEM

Nicole Burke was diagnosed with breast cancer in early 2017. She had surgery to remove the cancer and then six months of bi-weekly chemotherapy. A range of side-effects occurred on a daily basis including vomiting, nausea, fatigue, and hair loss. Her doctors noted during the duration of the chemotherapy treatment, she experienced side effects for longer periods than typical of other patients.

At the start of her chemotherapy, Nicole reported being scared, anxious, and sick. The chemotherapy treatment prevented her from working or performing many normal tasks. She also reported being frightened and stressed during the treatment period before she was introduced to the Virtual Reality headset.

On average she used the glasses 10 minutes per session, once the night before the treatment, during the treatment, and then the day after. She would also use the VR headset whenever she felt the side effects. She had several meditation applications to choose from to help her relax, and reduce the overall negative impact of the chemotherapy.

RESULT

Nicole found the device easy to use and control. Even though Nicole doesn't do regular meditation, she found the meditation application helpful and interesting enough to keep her engaged. She found the VR headset significantly decreased her anxiety and stress levels before, during, and after all her regular chemotherapy treatment.

Her physical side effects decreased as well. She found she was able to decrease her rapid breathing and increased heart rate when using the headset. The VR also helped her cope better with the pain and nausea, allowing her to perform normal tasks better, have a clearer head, and enabling her to be more productive at home and work.

For more information on how Virtual Reality is helping the medical field visit our website at [Epionia.com](https://epionia.com) or contact us at hello@epionia.com.