

The Science Behind Reimagine Well

Immersive Healing Experiences and Live Events: Alleviating Stress, Anxiety, Nausea, and Depression

Common symptoms of chemotherapy include nausea, vomiting, and fatigue, as well as loss of appetite, pain, and sleep disturbances.¹ As a result of chemotherapy, patients also frequently experience feelings of depression, helplessness, and anxiety.^{1,2} Additionally, heightened levels of stress and anxiety during medical procedures can have negative long-term emotional outcomes.³

Distraction therapy, a non-pharmacological method to effectively reduce stress, anxiety and pain experienced by patients during medical procedures, works by manipulating the environment and diverting the patient's attention.^{1,2,4} As far back as 1987 researchers found that pediatric cancer patients playing video games during chemotherapy had reduced anticipatory nausea.⁵

Passive distraction methods such as guided imagery and meditation have been shown to reduce stress and discomfort during medical procedures.^{6,7} Active distraction techniques such as virtual reality, which allows the user to interact dynamically with a computer-generated environment, provide effective distraction therapy for pediatric patients undergoing cancer treatment.^{1,2,8} By controlling their perceptual environment, patients can redirect their attention away from the hospital to more positive and inviting surroundings. In addition, virtual reality has been shown to improve patients' emotional well-being and diminished cancer-related psychological symptoms like depression.⁸

The use of a helmet or a head-mounted display (HMD) in virtual reality systems may cause a portion of users to experience motion sickness.⁹ However, HMDs are not necessary to provide effective distraction; younger patients demonstrated equivalent reduced levels of anxiety without an HMD.^{10,11}

Allowing patients to choose their preferred distraction activity is considered a best practice and can help compensate for the lack of control patients may feel during treatment.¹ In addition, there are other factors that influence which distraction therapy provides the greatest benefit for individual patients including the novelty of the experience, a child's age and the patient's pre-procedure level of anxiety or stress.^{1,12}

Learn Guides: Healthy Survivorship

Patients who have a clear understanding of their after-hospital care instructions are 30 percent less likely to be readmitted to the hospital.¹³ During the treatment phase, when patients and caregivers are frequently interacting with their healthcare team, they can more easily get answers to questions they may have. It is post treatment access to

health care information that is paramount for the healthy survivorship of cancer patients and for the prevention and early detection of a recurrence or a second cancer.¹⁴

Cancer survivors have consistently reported that finding credible, good-quality health information is a problem and they prefer health information that is created by or recommended by their hospital or health care provider.^{15,16,17,18} Further, a substantial number of patients express preference for the convenience of accessing information in a digital format from a phone, tablet or computer.^{15,16}

Patients and caregivers have also been shown to access health information through a variety of media.^{15,16} A rich media experience that combines text, videos, photographs, illustrations and linked resources provides flexibility, which is essential to suit changing consumer demands.¹⁶

Patient Support Community: Empowered Patients Sharing Information, Staying Positive

Social support alleviates the impact of illness and provides individuals with better coping outcomes.¹⁹ In an online support community, patients and caregivers can share information, talk freely about their illness, seek advice from others who have had similar experiences and provide support to others.²⁰ Online support communities have the added benefits of 24-hour availability, anonymity and privacy.¹⁹

Online support communities also allow patients and caregivers to connect based on the different phases of the cancer continuum - diagnosis, treatment, healing and wellbeing.²¹ Content analysis of online health communities has shown that members provide each other informational and emotional support, which has been shown to empower patients to make decision about their health.^{21,22} In addition, findings suggest that as participation in an online support group is sustained, patients become more positive.²³

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