

The high prevalence of compassion fatigue contributes to burnout among oncology nurses. Interventions are needed to support individuals across diverse roles and practice settings in oncology. Virtual reality (VR) is an emerging technology that has been applied in health-care education and training and is being explored as an intervention to reduce stress and support wellness for healthcare providers. This article reviews recommendations from an implementation project about a VR intervention for oncology nurses.

#### AT A GLANCE

- Interventions that reduce compassion fatigue and burnout among high-risk healthcare providers can improve job satisfaction and patient safety while reducing turnover-related expenses.
- VR programs are one tool that may help to improve resilience and well-being among nurses and other healthcare providers.
- Successful VR implementation requires prospective attention to a variety of organizational cultural and technical considerations.

#### KEYWORDS

virtual reality; compassion fatigue; burnout; oncology nurses

#### DIGITAL OBJECT IDENTIFIER

10.1188/19.CJON.664-667

# Virtual Reality–Based Resilience Programs

## Feasibility and implementation for inpatient oncology nurses

Sarah H. Michael, DO, MS, Pamela Martinez Villarreal, MSE, Michelle Frances Ferguson, BSN, RN, OCN®, Jennifer L. Wiler, MD, MBA, Richard D. Zane, MD, and Kathleen Flarity, DNP, PhD, CEN, CFRN, FAEN

Oncology nurses, like their colleagues in emergency medicine, intensive care, and behavioral health, are at risk for elevated levels of stress, burnout, and compassion fatigue (CF) (Cañadas-De la Fuente et al., 2018; Epp, 2012; Rushton, Batcheller, Schroeder, & Donohue, 2015). The experience of challenging patient cases, suffering, and death affects nurses and other healthcare providers emotionally, physically, and spiritually (Flarity, Moorer, & Jones-Rhodes, 2018; Gentry, 2016; Neumann et al., 2018). Many studies have documented a high prevalence of CF and its two components, burnout and secondary traumatic stress, in nurses, including those specializing in oncology (Flarity, Gentry, & Mesnikoff, 2013; Flarity, Nash, Jones, & Steinbruner, 2016; Gómez-Urquiza et al., 2016; Perry, Toffner, Merrick, & Dalton, 2011). Secondary traumatic stress is defined as trauma experienced by witnessing the pain and suffering of others (Beck, 2011). Burnout includes emotional exhaustion, depersonalization, and reduced personal accomplishment and is greatly affected by the work environment (Mashlash & Mayer, in press; Rushton et al., 2015). CF is associated with adverse health outcomes, absenteeism, increased turnover, and decreased satisfaction for nurses and decreased safety and satisfaction for

patients (Cañadas-De la Fuente et al., 2018; Hall, Johnson, Tsipa, & O'Connor, 2016; Perry et al., 2011). The cost of burnout-related attrition is high. Replacing one nurse is estimated to cost six to nine months' salary (NSI Nursing Solutions, Inc., 2019). Organizations that implement burnout interventions may experience reduced turnover, increased retention, and increased patient satisfaction (Henry, 2014).

Resilience measures, such as self-care activities, may mitigate the negative effects of occupational-related burnout (Flarity et al., 2018; Henry, 2014; Rushton et al., 2015). In healthcare institutions, such interventions have included training programs to improve individual staff members' abilities to practice mindfulness, mental rehearsal, positive self-talk, communication skills, and tactical breathing exercises, all of which are associated with decreased acute stress and improved technical and nontechnical performance (Anton, Bean, Hammonds, & Stefanidis, 2017; Lauria, Rush, Weingart, Brooks, & Gallo, 2016; van Agteren, Iasiello, & Lo, 2018).

### The Role of VR Interventions in Mitigating Burnout

Virtual reality (VR) is a head-mounted technology that creates an interactive and engaging simulation for the user so that he or she believes the experience is taking place in reality. VR is being explored to