

JL02. Virtual Reality as an Adjunct Method to Alleviate Pain and Anxiety in Patients Undergoing Bone Marrow Procedures

Kelly Young, DNP, RN, AOCN, Duke University Medical Center; Susan M. Schneider, PhD, RN, AOCN, FAAN, Duke University School of Nursing; Pandora Lassiter, PharmD, Duke University Medical Center; and Louis Diehl, MD, Duke University Department of Medicine, Durham, North Carolina

Purpose: The purpose of this randomized controlled study is to determine the clinical feasibility of using virtual reality at the bedside with patients who are undergoing a bone marrow biopsy. Outcome measures included pre and post pain and anxiety assessment and cost analysis. *Methods:* A prospective, randomized control trial design was used to test three hypotheses. The first was that virtual reality (VR) immersion can be successfully applied to patients undergoing bone marrow biopsy and aspirates. The second was that patients receiving VR immersion experience less pain and anxiety than without VR. The third hypothesis was that VR immersion is a cost-effective adjunct in clinical care. *Results:* VR was successful at the bedside during bone marrow biopsies. While not statistically significant, the VR intervention did show a trend toward better outcomes in both pain control and anxiety. VR also has the potential to result in a fiscal advantage over standard care. VR was well received and provided distraction for the majority of patients. *Conclusions:* VR immersion is a user-friendly intervention that subjectively provides distraction for patients who are undergoing bone marrow biopsy and aspirates. It is a relatively inexpensive intervention in today's technological environment. Virtual reality as an intervention deserves additional research in clinical settings.