Level of Sedation May Influence Effect of Virtual Reality Glasses During Distraction Therapy

In “Effects of Distraction Using Virtual Reality (VR) Glasses During Lumbar Punctures in Adolescents With Cancer” by Suzanne Sander Wint, RN, BSN, CPON, Debra Eshelman, RN, MSN, CPNP, Jill Steele, RN, MSN, and Cathie E. Guzzetta, RN, PhD, HNC, FAAN, an Online Exclusive article in the January/February (2002) issue of the Oncology Nursing Forum (ONF) (Vol. 29, pp. E8–E15), the authors’ use of virtual reality glasses as a distraction measure during lumbar punctures was a creative way to help manage patients’ pain. However, some aspects of the research influenced my acceptance of the clinical significance of the findings. Although the use of fentanyl, midazolam, and EMLA® cream (AstraZeneca Pharmaceuticals, LP, Wilmington, DE) were controlled variables in the study, I wondered if this pharmacologic therapy influenced the patients’ perception of pain.

As an emergency department nurse, I have performed conscious sedation many times and know that pharmacologic therapy affects people differently. In the study by Wint et al. (2002), the Sedation Assessment Scale was used only after the procedure was completed. The level of sedation during the procedure was not included in the study. Because of this, I wondered if the sedative effects of pharmacologic therapy increased the patients’ distractibility and made the VR glasses seem more effective. Rosen and Rosen (1998) found that IV midazolam used in combination with opioids or other sedatives significantly increased amnesia immediately following procedures. Amnesia tended to occur more frequently in children older than 11 years than in those younger than 11. Therefore, the patients in the Wint et al. study may have reached a level of sedation where they experienced some amnesia during the actual procedure.

The Wint et al. (2002) study had points that can be expanded by future research using a larger sample population. Patients responded positively to the VR glasses and seemed to enjoy the video shown. Broome, Rehwaldt, and Fogg (1998) stated that relaxation and distraction techniques provide competing stimuli that decrease the strength of signals triggering aversive drive and decrease both physiologic and behavioral distress. Based on patients’ postprocedure responses in the Wint et al. study, the VR glasses achieved this goal and reduced behavioral distress.

Brandy Worley, RN, BSN
Graduate Student
Sinclair School of Nursing
University of Missouri-Columbia Columbia, MO


The Authors Respond

Thank you for your insightful comments about our study. The issue of the effects of conscious sedation on the study’s outcomes is a concern that we share. The use of EMLA cream, conscious sedation, and even parental presence undoubtedly influenced the patients’ perception of pain. Each of these interventions has been documented to be effective and, in combination, represent the best of conventional care. But for the adolescent patients with cancer in our study, the authors’ past clinical experiences showed that these interventions were not enough to eliminate the fear and distress associated with multiple lumbar punctures. Adolescents repeatedly were distressed before such procedures.

Pain research has focused on integrating the best conventional interventions with complementary and alternative therapies. This framework guided the development of our study. Conscious sedation probably altered the patients’ perception of pain, may have increased their distractibility, and likely produced some degree of amnesia during the procedure in both the experimental and comparison groups. Although these variables are interesting and perhaps need to be investigated, many holistic researchers would not unbundle a state-of-the-art intervention package and deny patients the benefits of some of these strategies to determine the interventions’ impact on outcomes. The aim of our research was not to dissect these interventions into an either/or, reductionistic research approach to determine which one was best and to what degree. Rather, our goal was to investigate the feasibility and the combined, potentially synergistic benefits of this multimodal intervention package in the holistic treatment of emotional and sensory responses associated with painful procedures.

Suzanne Sander Wint, RN, BSN, CPON
Children’s Hospital of Oklahoma
Oklahoma City, OK

Debra Eshelman, RN, MSN, CPNP
Children’s Medical Center of Dallas
Dallas, TX

Jill Steele, RN, MSN

Cathie E. Guzzetta, RN, PhD, HNC, FAAN
Children’s Medical Center of Dallas
Dallas, TX

Nurses Should Be Included in Decisions Regarding the Purchase and Use of Venous Access Devices

I recently read “Satisfaction Versus Dissatisfaction With Venous Access Devices in Outpatient Oncology: A Pilot Study” by Cynthia Chernecky, PhD, RN, AOCN®, in the November/December (2001) issue of ONF (Vol. 28, pp. 1613–1616). I work in the field of home infusion and provide service to a large number of patients with cancer requiring frequent IV treatments. We provide infusion of chemotherapy, total parenteral nutrition, and fluids for hydration. We also perform frequent blood draws on these patients and provide support and education for patients as they undergo extensive treatment plans. We frequently encounter patients with poor venous access who have not been educated on the benefits of an implanted venous access device before beginning treatment. Oncologists, surgeons, and other specialists often are receptive to suggestions about port or tunneled catheter placement for treatment purposes, but only after treatment has begun and multiple failed attempts at maintaining venous access have occurred.

The results of Chernecky’s (2001) descriptive study are a positive force for educating nurses to be included in decisions regarding the purchase and use of venous access devices.