



To conduct a randomized control trial to evaluate the feasibility and efficacy of virtual reality (VR) compared with standard of care (SOC) for reducing pain, anxiety, and improving satisfaction associated with blood draw in children ages 10-21 years” Gold and Mahrer (2017).

Abstract:

OBJECTIVE: To conduct a randomized control trial to evaluate the feasibility and efficacy of virtual reality (VR) compared with standard of care (SOC) for reducing pain, anxiety, and improving satisfaction associated with blood draw in children ages 10-21 years.

METHODS: In total, 143 triads (patients, their caregiver, and the phlebotomist) were recruited in outpatient phlebotomy at a pediatric hospital and randomized to receive either VR or SOC when undergoing routine blood draw. Patients and caregivers completed preprocedural and postprocedural standardized measures of pain, anxiety, and satisfaction, and phlebotomists reported about the patient’s experience during the procedure.

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RESULTS: Findings showed that VR significantly reduced acute procedural pain and anxiety

compared with SOC. A significant interaction between patient-reported anxiety sensitivity and treatment condition indicated that patients undergoing routine blood draw benefit more from VR intervention when they are more fearful of physiological sensations related to anxiety. Patients and caregivers in the VR condition reported high levels of satisfaction with the procedure.

CONCLUSION: VR is feasible, tolerated, and well-liked by patients, caregivers, and phlebotomists alike for routine blood draw. Given the immersive and engaging nature of the VR experience, VR has the capacity to act as a preventive intervention transforming the blood draw experience into a less distressing, potentially pain-free routine medical procedure, particularly for pediatric patients with high anxiety sensitivity. VR holds promise to reduce negative health outcomes for children and reduce distress in caregivers, while facilitating increased satisfaction and throughput in hectic outpatient phlebotomy clinics.

Reference:

Gold, J.I. and Mahrer, N.E. (2017) Is Virtual Reality Ready for Prime Time in the Medical Space? A Randomized Control Trial of Pediatric Virtual Reality for Acute Procedural Pain Management. *Journal of Pediatric Psychology*. October 19th. .

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