

To evaluate the effectiveness of Virtual Reality (VR) as a distraction technique to help control pain in children and adolescents undergoing venipuncture” Atzori et al (2018).

Abstract:

Background: Venipuncture is described by children as one of the most painful and frightening medical procedures.

Objective: To evaluate the effectiveness of Virtual Reality (VR) as a distraction technique to help control pain in children and adolescents undergoing venipuncture.

Methods: Using a within-subjects design, fifteen patients (mean age 10.92, SD = 2.64) suffering from oncological or hematological diseases received one venipuncture with “No VR” and one venipuncture with “Yes VR” on two separate days (treatment order randomized). “Time spent thinking about pain”, “Pain Unpleasantness”, “Worst pain” the quality of VR experience, fun during the venipuncture and nausea were measured.

Results: During VR, patients reported significant reductions in “Time spent thinking about pain,” “Pain unpleasantness,” and “Worst pain”. Patients also reported significantly more fun during VR, and reported a “Strong sense of going inside the computer-generated world” during VR. No side effects were reported.

Conclusion: VR can be considered an effective distraction technique for children and adolescents’ pain management during venipuncture. Moreover, VR may elicit positive emotions, more than traditional distraction techniques. This could help patients cope with venipuncture in a non-stressful manner. Additional research and development is needed.

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Reference:

Atzori, B., Hoffman, H.G., Vagnoli, L., Patterson, D.R., Alhalabi, W., Messeri, A. and Lauro Grotto, R. (2018) Virtual Reality Analgesia During Venipuncture in Pediatric Patients With Onco-Hematological Diseases. *Frontiers in Psychology*. December 20th. eCollection 2018.

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