



The Effect of Virtual Reality in Reducing Dental Anxiety and Pain in Paediatric Patients: A Randomized Clinical Trial.

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Abstract:

Objectives: This study is concerned with finding out whether the use of a non-interactive virtual reality gear (VR) can help in managing anxiety and pain in paediatric patients, aged 6-9, in a dental setting when exposed to local anaesthesia and restorative procedures.

Materials and Method: A randomized clinical trial was conducted in the University of Sharjah Dental Hospital where 12 patients were exposed to the VR during treatment, and 12 controls were treated in a conventional manner without the use of a VR device. Scales, such as Houpt, Frankl, Visual Analog scale (VAS), and the faces version of the Modified Child Dental Anxiety Scale Questionnaire (MCDAS) have been used to measure their anxiety, pain, and

satisfaction levels before and after treatment, and were used to decide on the outcome of this study.

Results: Children's behaviour during treatment with the use of VR glasses, as rated by Frankl and Houpt scales, was significantly better ($P = 0.001$) as compared to the control group. There was a significant reduction in perception of pain between the two groups as measured by VAS ($P = 0.022$). A significant reduction was found as well in the levels of anxiety after treatment between the two groups ($P=0.018$) as per the MCDAS.

Conclusion: Our study showed that VR glasses can be a successful tool in reducing pain and anxiety of paediatric patients during routine restorative treatment.