How well does distraction alleviates procedural pain in children ?

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Background and aims

Non-pharmacological interventions can be used to blunt procedural related pain, but prospective studies in children on its feasibility and the magnitude of its effect are limited. We therefore wanted to compare the impact of an active or passive distraction technique on pain score in a prospective study design.

Methods

We documented the impact of TV watching to a film (passive, n=31), or a video game (active, n=30) chosen by the child during venipuncture in an ambulatory setting on the VASc pain score reported by the child (VASc) and compared these findings to control cases (n=57) in a cohort of children 6-12 years undergoing venipuncture.

Results

Median (range) scores in the active, passive and control groups were 0.5 (0-10), 1.5 (0-6) and 3 (0-10) respectively and were significantly lower in both interventions groups. 24 cases reported a VASc score >4, of whom 20/57 and 4/61 in the control and intervention groups (35 and 6% respectively, NNT 3.3-3.5). Compared to passive distraction, the active distraction score was significantly lower (p=0.045).

Conclusions

Distraction, either active or passive is effective to blunt procedural pain during venipuncture in children and results in a significant reduction in children reporting a VASc > 4 (NNT 3.3-3.5). Active distraction is hereby marginally more effective compared to passive distraction