



## **Avatars and Cartoons reduce anxiety in pediatric inpatients**

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Background and aim: Pain induces fear, stress and anxiety in young children. Avatars and cartoons explaining analgesic and sedative drugs administration routes may reduce children's anxiety in young children. We quantify the possible antianxiety effect of avatars and cartoons explaining analgesic and sedative drug's administration routes to inpatients children.

Methods: A prospective, aleatorized, controlled study (blinded for the analyser) in inpatients children (< 6 years old) was done. Clinical stage, diagnostic, surgery, anaesthesia and all treatment procedures were recorded. Anxiety (STAIC test) was recorded before and 5 h and 24 h after drugs administration. A 15 minutes movie with avatars and cartoons explaining how the analgesic and sedative drugs were going to be administered was use in 120 children (movie group) and was compared to other group that could not see the movie (control group n=120). Results: Children, N=240, aged 3-6 years, 4.5±1 years old, 55% male, treated in emergency 50%, surgery (31.3%) and intensities care unit (18.8%) were enrolled. The drugs routes administration were oral (25%), intramuscular (29.6%), intravenous (39.6%), inhalatory (3.8%), others (2.1%). Children saw part or the full movie an average of 5.2±2.1 times. At 24 h of follow-up anxiety was higher in control than in movie group (8.5±3 vs. 4.3±1.6, p<0.05, Student t test). Children of the control group wept, complained, and called their parents during more time than movie group.

Conclusion: The use of avatars and cartoons to explain analgesics and sedative drugs routes administration to inpatients young children reduced children's anxiety.

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