



VIRTUALLY OVERCOMING ANXIETY



Can virtual reality be effective in reducing anxiety for painful procedures in a children's emergency department?

- Zoe Parton & Dr David Patel

Procedures in the Emergency department can be painful and distressing to children.

Perception of pain in children is complex and multifaceted, heightened by stress and anxiety with pain and fear intertwined.

It is well recognised that procedural analgesia with distraction can be effective in facilitating procedures.

We introduced the use of a virtual reality (VR) headset to supplement more traditional forms of distraction.

Why VR?

VR distraction is an established pain management intervention and is useful in diminishing pain and behavioural distress in paediatric patients, particularly those undergoing invasive medical procedures

VR allows children to be immersed in games and scenarios with audio-visual separation from the clinical environment that they are in both providing distraction and focussed attention to reduce anxiety.

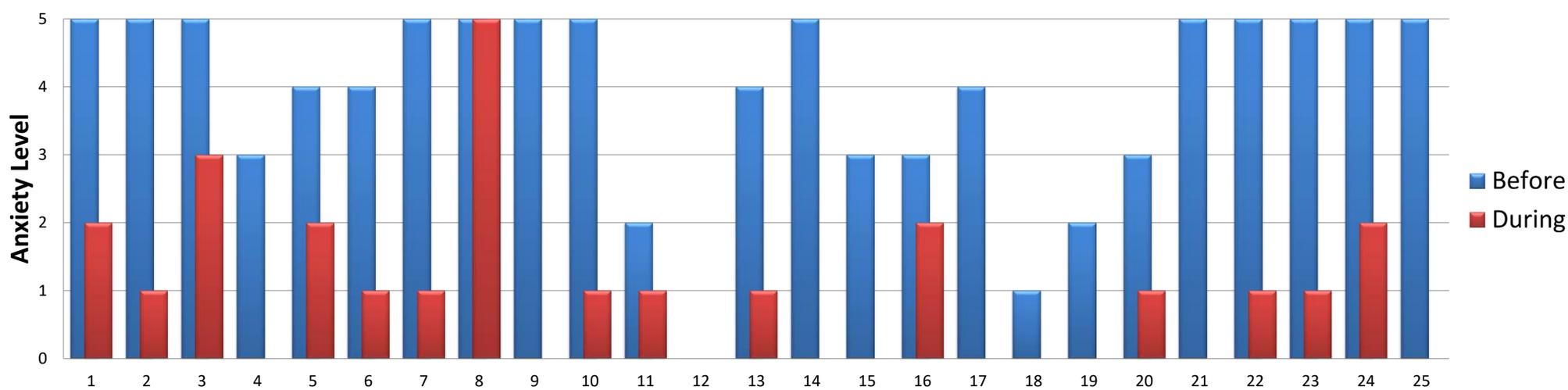
What did we do?

We surveyed a group of 25 children undergoing painful procedures within our department.

All children were deemed able to use the VR headset prior to the procedure, and received procedural analgesia guided by their clinicians (e.g. Entonox, diamorphine, local anaesthetic).

Children were asked to rate their level of anxiety before and during the procedure, and to feedback if they felt unwell.

Did VR reduce anxiety?



2 children had no reduction:

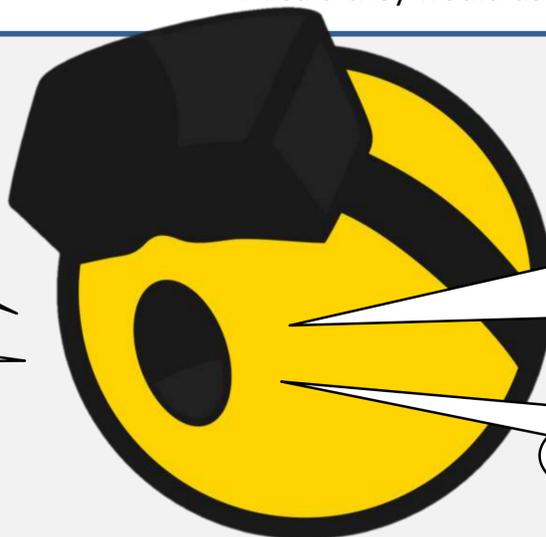
One had autism and found it gave sensory overload, the other reported no anxiety prior to procedure

3 reported feeling sick

24 said they would use it again for a procedure

I really liked the roller coaster game

Fabulous for taking children's mind off what was happening - excellent idea



Having the VR set has been a game changer during my child's two interventions (chest aspiration and chest drain) - it has enabled him to be focused on something else and therefore reduced his stress and anxiety levels considerably

I liked the different games; it is fun and engaging

Discussion

We have seen great success in using a VR headset for distraction or focussed attention within our paediatric ED for painful or distressing procedures. It has been popular with the children and their parents, and can turn a potentially distressing situation into an exciting and entertaining one

It has been well received by our doctors and nurses due to its effect on reducing anxiety and distress in the patients whilst improving co-operation with the procedure. We have seen no negative effects in using it in combination with Entonox or opiates.