

Virtual reality for the management of pain and anxiety during manual vacuum aspiration: a randomised control trial

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Primary Aim

To study the feasibility of using virtual reality as a distraction technique for the management of acute pain and anxiety during manual vacuum aspiration

Secondary Objectives

1. To understand the acceptability and effectiveness of VR interventions in ambulatory gynaecology procedures
2. To understand factors that might influence willingness of patients to participate in a future formal trial of the technology
3. To understand how best to implement the technology and designing of the contents of the VR intervention.

Why does this matter?

To improve the patient experience of manual vacuum aspiration
To increase use of MVA thus saving money, time and reducing operative risk



Study design

- Parallel group, prospective multi-centre randomised controlled trial.
- 50 consenting, eligible women were randomised to virtual reality intervention (immersive video content "The Forest of Serenity") or standard care MVA from July 2021-July 2022 across two university hospitals in London, UK.
- Expected and actual pain and anxiety outcomes were measured as a numeric rating score (0-10) and a structured interview was undertaken in women randomised to virtual reality.



Results

- 100% reporting a positive experience of using the VR
- 91% reporting it reduced their anxiety
- 73% reported that it reduced or distracted them from their pain.
- There was no significant difference in numerical rating scores for pain or anxiety reported by women randomised to virtual reality compared with standard care.
- Mean worst pain scores were 5.98 and 6.88 in the standard care
Virtual reality intervention was well tolerated by all women in the intervention group.

100% reported a positive experience of using VR

"I think it was just good to be able to watch a video and it keeps your mind occupied so you're not thinking about the procedure"

"...the narrator's voice was really calming so that was definitely a big advantage..... I think everyone should use this"

"It was very soothing and calming, and it does take away the focus"

"keeping focused on something else which I thought was good because I was already anxious and I think watching what was happening might have been more stressful so I think it lowered that stress for me"

"its comforting, its not actually fully paying attention to what's happening to you"

"It was definitely an improvement on staring at the ceiling"

Qualitative analysis quotes: What did you think about your experience of using the VR?

Conclusion

Virtual reality is a feasible and acceptable intervention that can be used to improve patient experience during manual vacuum aspiration.

Virtual reality has the potential to be offered as an alternative or additional pain management strategy in ambulatory gynaecology settings.