

Does Virtual Reality Technology Reduce Pain and Anxiety during Outpatient Hysteroscopy?

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Background

- **Outpatient hysteroscopy (OPH)** is used to diagnose and manage various intrauterine pathology¹.
- Although usually well-tolerated, some women experience significant pain and anxiety during OPH¹.
- Studies into the use of **virtual reality technology (VRT)** in managing pain and anxiety in different procedures are rapidly emerging².
- There is limited research on the use of VRT in OPH.

AIM: to evaluate the effectiveness of VRT in reducing pain and anxiety during OPH.

Methods

- An **unblinded randomised controlled trial** was performed between March and October 2022.
- **83 women** were randomly allocated to receive standard care alone (control; n=42) or with VRT as adjunct (intervention; n=41).
- VRT was administered using a Pico G2 VR headset, provided by SyncVR Medical (Utrecht, Netherlands).
- Participants rated pain and anxiety levels on **numerical rating scales (NRS)** using pre- and post-procedure questionnaires.

Results

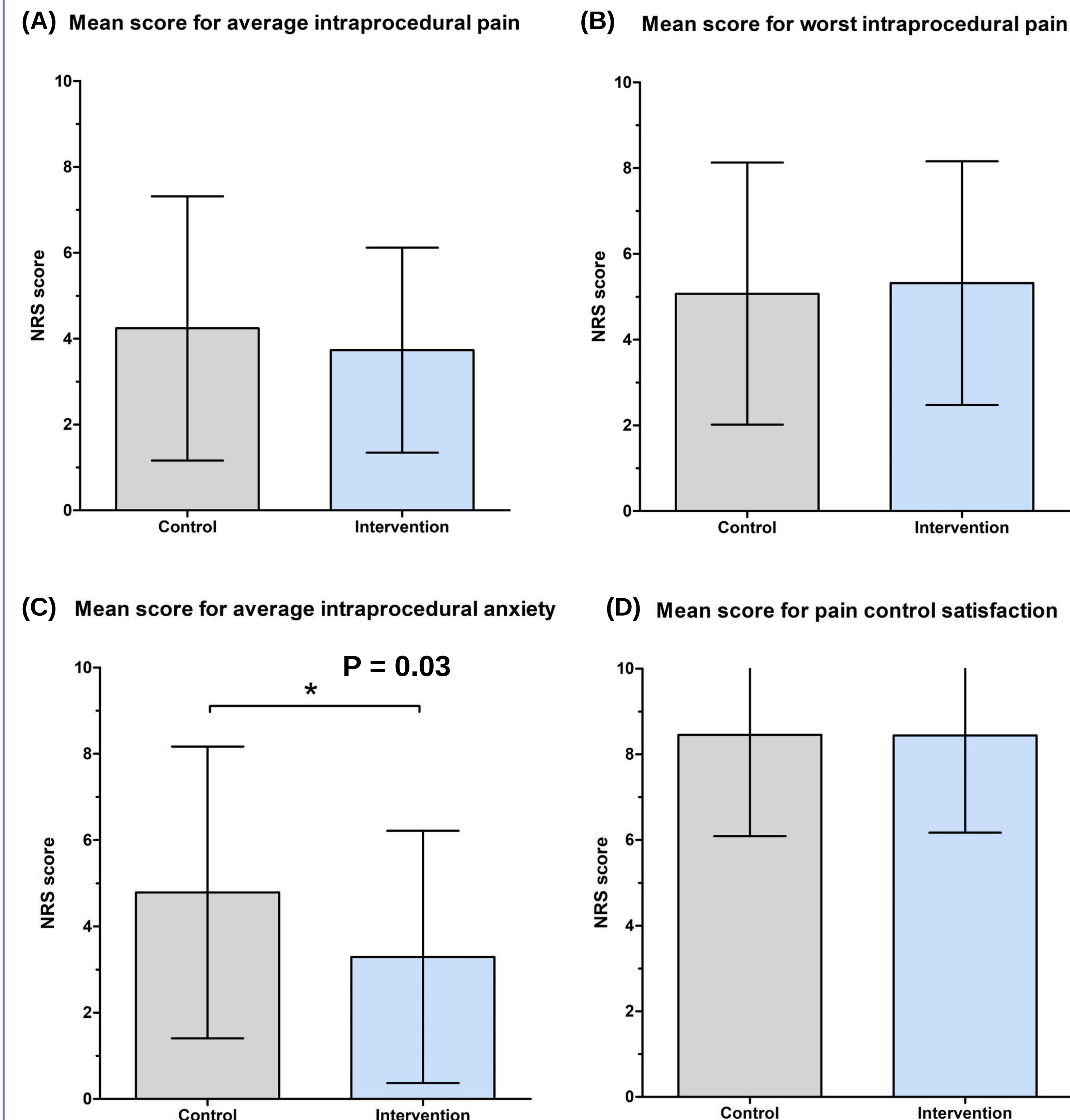


Figure 1. Graphs showing mean numerical rating scale (NRS) scores comparing the control (n=42) and intervention (n=41) groups for (A) average intraoperative pain, (B) worst intraoperative pain, (C) average intraoperative anxiety and (D) pain control satisfaction.

Results (continued)

- Mean anxiety NRS scores were significantly lower in the intervention group (3.29 ± 2.93) than in the control group (4.79 ± 3.38 ; $p=0.03$).
- There were no serious side effects or procedure-related complications experienced by any patients in either group.

Conclusion

- VRT is a **simple, feasible and safe adjunct** to standard care during OPH.
- VRT can **significantly reduce anxiety** during OPH.
- However, there is no significant difference in reported pain levels or pain control satisfaction.
- Continued improvements in VRT and development of increasingly immersive environments in the future may continue to improve patient experience in the OPH setting.

REFERENCES

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