

# Authors' reply re: Virtual Reality for Acute Pain in Outpatient Hysteroscopy: A Randomised Controlled Trial. (Response to BJOG-20-1488)

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## Virtual Reality for Acute Pain in Outpatient Hysteroscopy: A Randomised Controlled Trial

We would like to thank E.Mirza and colleagues for their interest in our study, Virtual Reality for acute pain in outpatient hysteroscopy: A randomised controlled trial.

We would like to point out that in light of the fact that the sample size was limited to 40 patients, the interpretation of further subgroup analysis is likely to be limited.

On further analysing patients we noted that a total of 7/40 (18%) which included 3 in the Standard Procedure (SP) arm and 4 in the Virtual Reality (VR) arm, had had a previous outpatient hysteroscopy. The mean expected pain scores in the VR and SP groups were comparable (VR group was 6.5 and in the SP group was 7) however the perceived average pain scores were 2.25 and 6.3 respectively. This would suggest that VR might have had a beneficial effect despite a previous experience of OPH.

We appreciate that patient's pain thresholds are variable and that it is a very subjective experience. 2 patients in the VR group reported average pain scores of 0 whilst all patients in the SP group experienced some degree of pain. It is difficult to ascertain how much VR contributed to the experience in the context of the patient's tolerance to pain. We agree that future studies looking into patients with painful hysteroscopies would most benefit from additional pain relief strategies and would be of immense clinical value.

Analgesic intake included paracetamol, non steroidal anti-inflammatory drugs, cocodamol either on their own or in combination and the numbers of patients receiving analgesics was comparable across the two groups. However we do not have data on dosages and how long before the procedure the analgesics were taken. We acknowledge that standardisation of analgesics intake would have helped in understanding the actual impact of VR in pain relief.<sup>1,2</sup> We agree with these suggestions for future directions of research in this area and the suggested improvements to methodology.

Claustrophobia was not an exclusion criterion in our study and hence one patient was recruited but nevertheless only experienced the intervention of a short period of time before she took the VR goggles off. We note recent studies, which have used VR for treatment of claustrophobia.<sup>3,4</sup> The outcomes are normally reported taking an Intention to Treat approach. We repeated a regression analysis after removing the patient in question, and the experimental group still reported significantly lower pain and anxiety scores for those patients receiving the VR intervention.

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