

Nonpharmacological interventions for the reduction of post-operative pain after ambulatory surgery: A systematic review of randomised controlled trials

Supplement: Characteristics of included studies

Author (year) Country of origin	Title	Study sample	Intervention	Pain assessment schedule / time points	Pain assessment tools
Chartrand (2017) ¹ Canada	The effect of a pre-operative educational DVD on parents' and children's outcomes after same-day surgery: A randomised controlled trial	123 children aged between three and ten years with ENT or dental surgery in a Canadian paediatric hospital.	A 12-minute DVD about preparation for surgery, pain management to support children and images of positive interaction between a nurse, family/parents and children.	In the recovery room and in the day surgery unit.	mCHEOPS a total of five items – cry, facial, verbal, torso and legs – each scored 0–2 (e.g. for 'facial' item 0 = smiling, 1 = composed, 2 = grimace).
Coe (1999) ² England	The effect of acupuncture on pain and swelling after day-case molar teeth extraction under general anaesthesia	Forty patients aged 18–40 undergoing molar teeth extraction were allocated to the intervention and control groups. The intervention group received acupuncture with general anaesthesia, the control group received general anaesthesia only.	Acupuncture therapy using four needles located in primary meridian point followed by 2.5 Hz electric stimulation, adjusted to suit the patient, and maintained until the operation ended.	In recovery and at hours 2, 18 and 72 hours after the operation.	VAS with 0–100 score from minimum to maximum pain perceived.
Hansen (2015) ³ Iceland	A feasibility pilot study on the use of complementary therapies delivered via mobile technologies on Icelandic surgical patients' reports of anxiety, pain, and self-efficacy in healing	105 adults aged 18–75 undergoing general surgeries. The samples were divided as follows: • 25 audio relaxation technique (ART) • 25 music intervention (MI) • 15 nature video application with music (NVAM) • 16 nature video application without music (NVA) • 24 control group. All the samples were given standard operative care.	The patients were instructed to view or listen to the material twice a day for at least 15 minutes from four days before surgery to five days after surgery. The material consisted of a recorded relaxation technique (ART), non-lyrical musical pieces (MI) and specially designed nature videos with and without background music (NVAM and NVA).	Four days before the surgery, just before the surgery, straight after surgery and day five after surgery.	NRS with 0–10 score from minimum to maximum pain perceived.
Hulme (1999) ⁴ England	The effect of foot massage on patients' perception of care following laparoscopic sterilisation as day case patients	59 women undergoing laparoscopic sterilisation were divided into intervention and control groups. The intervention group received foot massage and standard post-operative analgesia, the control group received standard post-operative analgesia only.	A five-minute foot massage using standard technique, without referring to reflexology massage points, with style adjusted to suit the therapist and patient.	Pain assessment for the control group was performed on arrival to the ward, 10 minutes after surgery, the next 10 minutes, when ready for discharge and when leaving the day surgery unit. Pain assessment for the intervention group was performed on arrival to the ward, immediately before and after the massage was given, when ready for discharge, when leaving the day surgery unit.	NRS with 0–10 score from minimum to maximum pain perceived.

ENT = ear, nose and throat; mCHEOPS = modified Children's Hospital of Eastern Ontario pain score; VAS = visual analog scale; NRS = numeric rating scale

References

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3. Hansen M. A feasibility pilot study on the use of complementary therapies delivered via mobile technologies on Icelandic surgical patients' reports of anxiety, pain, and self-efficacy in healing [Internet]. *BMC Complementary and Alternative Medicine*. 2015[cited 2021 May];15:92. DOI: 10.1186/s12906-015-0613-8
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