

THE EFFECT OF EARLY NIPPLE STIMULATION ON THIRD STAGE OF LABOUR DURATION AND ESTIMATED BLOOD LOSS: A SYSTEMATIC REVIEW AND META-ANALYSIS

Zoe Y. Zervides ^{1,2}, Maria M. Witkowiak², Dana O. Alzoubi², Reem B. Zalloum³, Natalie E. Bourdakos ^{1,2}, Fatma A.M. Abdulsalam⁴, Hayato Nakanishi⁵, Christian A. Than ^{1,2,6}, Shavi Fernando ⁷, Sir Sabaratnam Arulkumaran¹

Aim

To assess whether early nipple stimulation (ENS) following uncomplicated deliveries effects the duration of the third stage of labour and estimated blood loss.

Background

- Post-partum haemorrhage due to uterine atony remains a leading cause of maternal mortality worldwide, predominantly occurring in under resourced settings.
- The risk increases with prolonged duration of the third stage of labour. ENS promotes the early release of oxytocin, which has beneficial effects on uterine tone, potentially decreasing length of third stage and estimated blood loss^{1,2}.

Methods

- A search was conducted in Pubmed, Embase, Cochrane, CiNAHL, Scopus and Web of Science, covering studies published up to 02.05.24. This initially yielded 407 studies.
- 32 articles were considered suitable for further assessment and 9 studies including 789 women, met inclusion criteria.
- 3 studies were randomised controlled trials and the other 6 were a prospective cohort study design
- The following maternal outcomes were extracted: EBL (mL), length of third stage of labour (min), uterine tone and the success of the first breastfeed.

Results

Duration of Third Stage of Labour

- 8 studies reported
- No difference between ENS (329 women) and the control (353 women). (Fig. 1)

Subgroup analysis

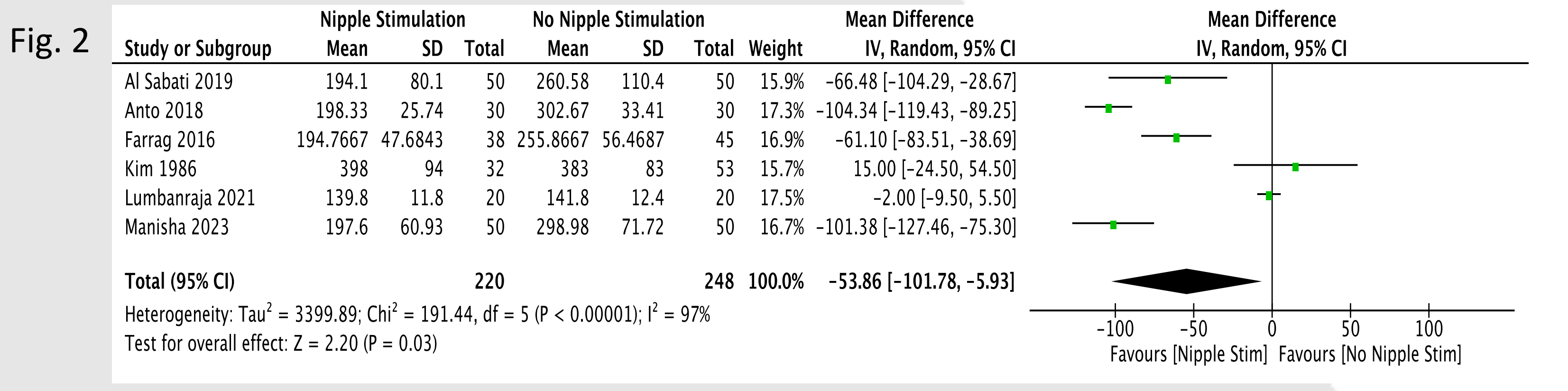
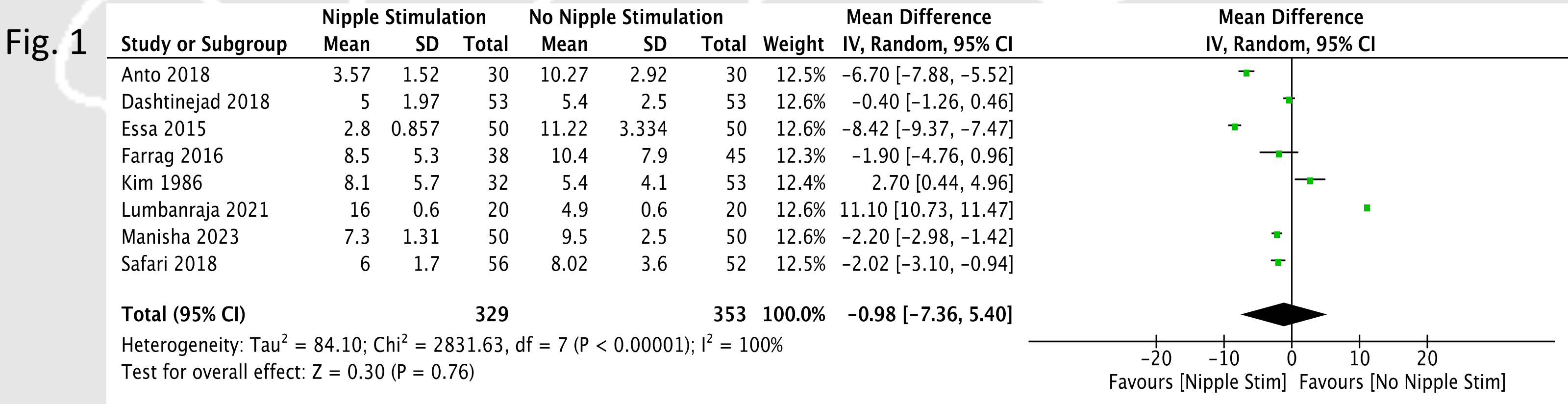
- 3 studies used oxytocin in the control group and 5 did not. The 5 studies that did not, had a significantly shorter third stage.
- 3 studies were RCTs and 5 were observational studies. A difference in the duration was found only in the latter.

Estimated Blood Loss

- 6 studies reported
- ENS (220 women) had significantly less blood loss than the control (248 women). (Fig. 2)

Subgroup analysis

- 2 studies used oxytocin in the control and 4 did not. Only the latter had significantly less blood loss.
- 2 studies were RCTs and 4 were observational studies. A difference between in blood loss was only found in the observational studies.



Conclusion

- Some evidence that ENS may reduce both the duration of the third stage of labour and blood loss.
- Our findings support the incorporation of ENS in routine labour management, ESPECIALLY in settings where access to uterotonics is limited.
- Additional need to explore the benefits of ENS with higher quality research, as there is little to lose and much to gain.

Institutions

¹School of Medicine, St George's University of London, London SW17 0RE, United Kingdom
²School of Medicine, University of Nicosia Medical School, University of Nicosia, 2417 Nicosia, Cyprus
³College of Liberal Arts and Sciences, University of Illinois at Chicago, 60607, Chicago, IL, USA
⁴Department of Medicine, Oxford University Hospitals NHS Foundation Trust of Headley Way, Headington, Oxford OX3 9DU
⁵Department of Surgery, Mayo Clinic, Rochester, MN 55902, USA
⁶School of Biomedical Sciences, The University of Queensland, St Lucia, Brisbane, QLD 4072, Australia
⁷Department of Obstetrics and Gynaecology, Monash University, Clayton, VIC, 3168, Australia

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Contact Information

Dr. Zoe Zervides
Email: zzervides@gmail.com

Dr Christian Than
Email: c.than@uq.edu.au