

Organisational interventions to reduce non-medically indicated caesarean section rates: A systematic review and meta-analysis

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BACKGROUND

- Non-medically indicated caesarean sections (CS) are associated with increased risk of harm for women and infants.
- Despite risks associated with maternal and perinatal morbidity, the rates of CS continue to rise in many countries.

OBJECTIVE

Systematically review and meta-analyse research on organisational interventions used in maternity services to reduce CS rates, to quantify the effectiveness of the interventions.

METHOD

- Comprehensive search of Cochrane CENTRAL, CINAHL, MEDLINE, Maternity and Infant Care, EMBASE and SCOPUS.
- The primary outcomes of interest were overall, planned and unplanned CS rates.
- Random effect model meta-analyses were conducted by organisational intervention and outcome of interest.
- Reported effect measures were summary risk ratios (RR) with 95% confidence intervals (CI).

RESULTS

- 15 publications were included, 9 of which were included in meta-analysis (Figure 1).
- Compared with routine care, women allocated to **midwife-led models of care**, implemented across pregnancy, labour, birth, and the postnatal period, were found, on average, to be **less likely to experience**:
 - CS overall** (average RR 0.83, 95% CI 0.73 to 0.96; Figure 2),
 - planned CS** (average RR 0.75, 95% CI 0.61 to 0.93; Figure 3),
 - episiotomy** (average RR 0.84, 95% CI 0.74 to 0.95; Figure 4).
- Audit and feedback, and a hospital policy of mandatory second opinion for CS, had potential to reduce CS rates.

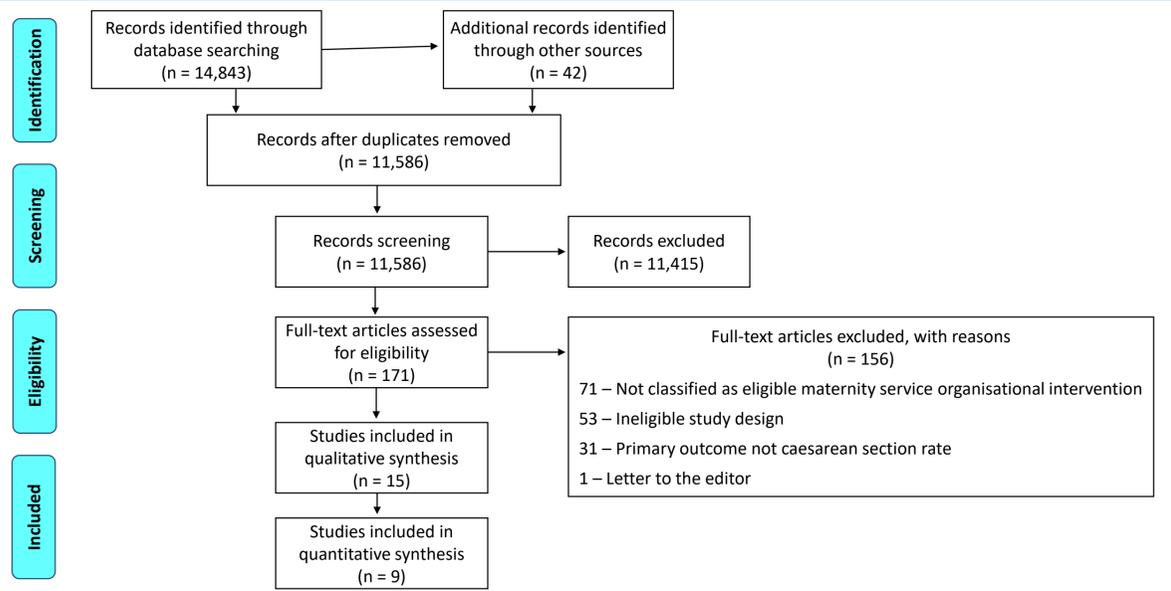


Figure 1. PRISMA flow diagram

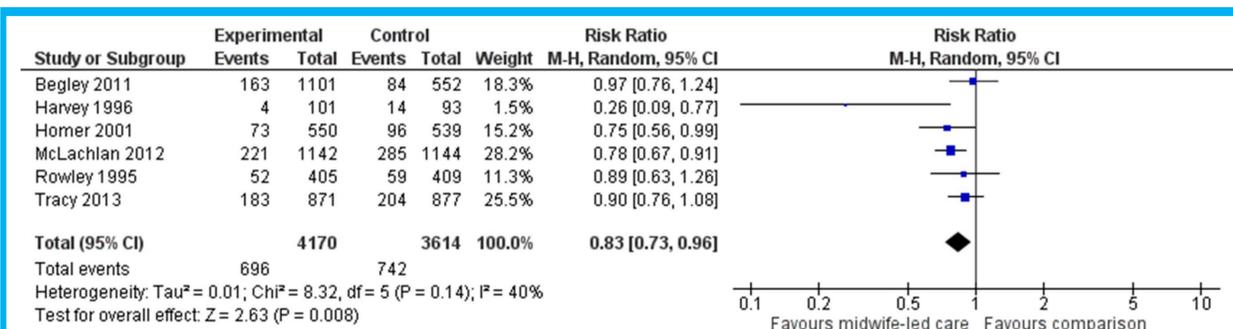


Figure 2. Forest plot for the outcome 'overall caesarean section' in the selected RCTs, comparing midwife-led models of care (implemented across pregnancy, labour and birth, and the postnatal period) with standard care

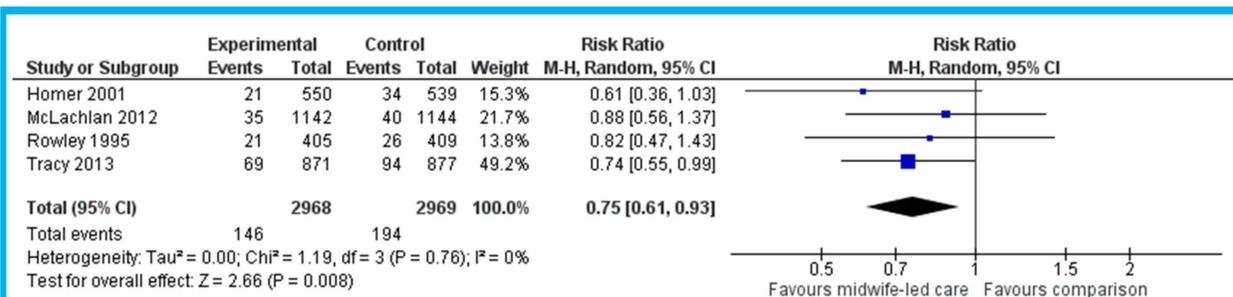


Figure 3. Forest plot for the outcome 'planned caesarean section' in the selected RCTs, comparing midwife-led models of care (implemented across pregnancy, labour and birth, and the postnatal period) with standard care

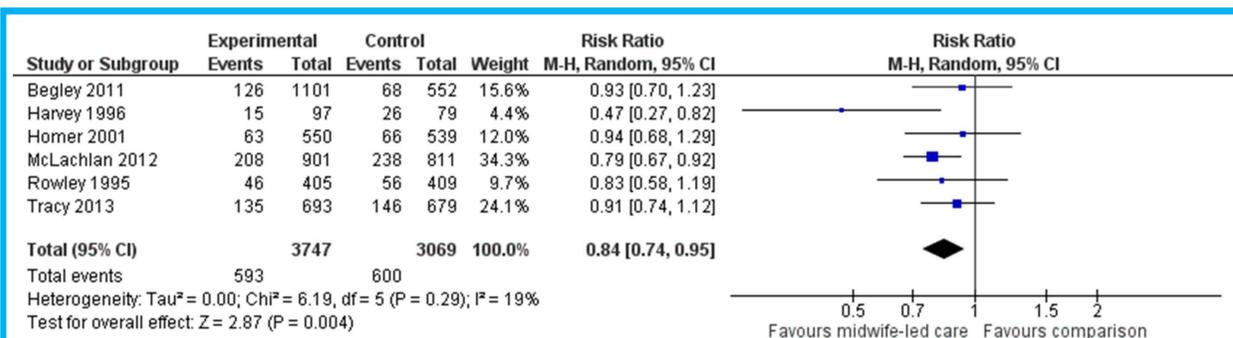


Figure 4. Forest plot for the outcome 'episiotomy' in the selected RCTs, comparing midwife-led models of care (implemented across pregnancy, labour and birth, and the postnatal period) with standard care

CONCLUSION

On the basis of our findings, we recommend that maternity service leaders consider offering, or expanding existing, midwifery-led models of care throughout the maternity episode of care within their organisation for women at low-risk for complications. Additional studies that utilise either audit and feedback, or a hospital policy of mandatory second opinion for CS, are required to facilitate the measurement of intervention effects within future reviews.