Evidence Synthesis Ireland Fellowship Scheme
Review Identification Form

Review Centre/Group Mentor

Mentor: Prof Valerie Smith Centre: University College Dublin

Review title

The effectiveness of care bundles for reducing caesarean section safely

Review type and methods

Type of review: Effectiveness review (using Cochrane effectiveness review methods)

Synthesis methods: Meta-analysis (as feasible)

Methods that the Fellow is expected to learn:

- Developing and implementing a search strategy
- Screening
- Risk of Bias/Quality Assessment of included studies.
- Data synthesis (meta-analysis, as feasible)
- Write-up and report; submission to a Journal for publication.
- Embedding a Study Within A Review (SWAR)*

*The proposed SWAR will replicate *SWAR 2: Effects of reading a summary or listening to a summary podcast on knowledge and understanding of the findings of a systematic review,* with minor modifications.

https://www.qub.ac.uk/sites/TheNorthernIrelandNetworkforTrialsMethodologyResearch/FileStore/SWARFileStore/Filetoupload,695595,en.pdf

The modified SWAR will involve randomizing a sample of 90 maternity clinicians (midwives and obstetricians) to one of three dissemination techniques:

- Reading the plain language summary of the review (n=30).
- Listening to a podcast of the summary of the review (n=30)
- Reading an infographic of the summary of the review (n=30)

Outcome measures:

- Comprehension/understanding (using a Likert scale)

- Satisfaction with summary format
- Preference for an alternative format (and if yes, what format would this be)
- Interest in reading the full review after accessing the summary.

Other information

PPI representation has been secured for the review.

Review details

Background: Although a life-saving intervention, caesarean birth is not without risks for both the mother and baby, especially when performed in the absence of medical need. The use of CS as a mode of birth is continuing to rise globally, suggesting that increasingly unnecessary CS are being performed. Although, variations in global CS rates exist, for example, from 5% in sub-Saharan Africa to 43% in Latin America and the Caribbean, CS, overall, accounts for 21% of all births globally.[1] This rising trend is set to continue, with projections placing CS as the mode of birth in 29% of all births globally by 2023. In Ireland, an analysis of HSE data found that in five (of 19) maternity hospitals, over 50% of primiparous women had a CS. In a further six hospitals, the rate was between 40% and 49%.[2] These rates go well beyond that of the 10-15% suggested by the WHO as being optimal for maternal and neonatal outcomes.

The concept of care bundles was introduced by the Institute for Health Improvement (IHI) in 2001 and is defined as: *A small set of evidence-based interventions for a defined patient segment/population and care setting that, when implemented together, will result in significantly better outcomes than when implemented individually"*.[3] Care bundles for use in maternity care have been developed for many maternity conditions (e.g., haemorrhage, perineal trauma, mental health), including CS.

Objective: To evaluate the effectiveness of care bundles developed for the safe reduction of CS and the promotion of vaginal birth in pregnant women.

PICO: Studies will be eligible for inclusion if they report on a care bundle developed specifically for the safe reduction of CS (I) compared to no care bundle or standard care (C) in women who are pregnant or in labour (P). The primary outcome (O) will be mode of birth (CS, vaginal birth, assisted vaginal birth). Secondary outcomes will include maternal satisfaction (with care), Apgar scores, neonatal admission to NICU, and care bundle compliance (intervention group only).

Study Types: In our scoping review of care bundles, before and after studies were the most frequently reported design for evaluating outcomes following care bundle implementation. For this reason, in this review, to facilitate a comprehensive evaluation of effect (or association),

empirical studies of any comparative design (e.g., RCTs, quasi-RCTs, and before and after studies) will be eligible for inclusion.

References

[1] The World Health Organisation (2021): https://www.who.int/news/item/16-06-2021-caesarean-section-rates-continue-to-rise-amid-growing-inequalities-in-access#:~:text=Rising%20rates%20suggest%20increasing%20numbers%20of%20medically%20unnecessary%2C%20potentially%20harmful%20procedures&text=According%20to%20new%20research%20from,21%25)%20of%20all%20childbirths.

[2] https://www.irishexaminer.com/news/arid-41267860.html

[3] Resar R, Griffin FA, Haraden C, Nolan TW. Using Care Bundles to Improve Health Care Quality. *IHI Innovation Series white paper. Cambridge, Massachusetts: Institute for Healthcare Improvement* 2012; Available on www.IHI.org.

Review current status

Submission to PROPSERO for registration is planned; the review has otherwise not started providing the Fellow with an opportunity to engage in all aspects of the review.

Any specific/desirable requirements for fellow (e.g. clinical expertise, methodological expertise)

None specifically required; the Fellow will be mentored through all aspects of the review irrespective of past/current experience.

Estimated start and completion dates

Once the Fellowship is awarded (circa March 23) and completed within 12 months