Reviewer’s report

Title: Evaluation of a bespoke training to increase uptake by midwifery teams of NICE Guidance for membrane sweeping to reduce induction of labour: a stepped wedge cluster randomised design

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Reviewer: Louise Michele Howard

Reviewer’s report:

Abstract conclusions do not refer to implications of the study findings. Does this negative finding mean training is not effective (or cost effective) and should be abandoned? Or that there wasn't the statistical power to detect a difference? Could the authors replace or add to their current text with implications of their findings.

Background is clear and well written.

Methods are not entirely clear. It appears that a group discussion was part of the intervention where barriers to adherence to guidance were discussed. How was the information collected in these groups used as part of the intervention? It sounds as if it was part of development work to design the intervention but the inclusion of this text within the section describing the intervention implies it is part of the intervention. Could the authors clarify?

More detail of the intervention would be helpful. For example how long did it take, was it didactic or interactive, was it supplemented by written material etc? TIDIER guidance on description of interventions in trials would be a useful framework for the description of the intervention.

The authors chose teams to participate based on whether it was felt that they did not adhere to guidelines. This could lead to selection bias and would ideally have been done through random selection or inclusion of all teams or based on data that evidenced which teams were not adhering to guidance. It seems unlikely that any team completely adhered to the guidance. Could the authors either give more detail on why it was felt that these were under-performing teams and highlight the limitation of this aspect of the methods in the discussion.

The number of midwives in the different teams does not appear to have been taken into account in the power calculation and is not provided in the results. It is also unclear whether the analysis took into account any intervention x time effects, the multi-levels of the clustering ie hospitals, Trusts and teams, and the lack of data from teams for some of the trial.

I am not clear whether the primary outcome is the proportion of offers of a sweep or actual sweeps - in some part of the text the authors refer to offers and elsewhere to actual sweeps happening. But presumably offers don't always result in sweeps so it would be helpful to clarify this.
There is an additional primary outcome of number of sweeps but the power calculation does not appear to take into account the use of two primary outcomes.

There is no description of the measure used for knowledge before and after training in the methods section but a questionnaire is referred to in the results section. Please include details including how it was validated, and how it is scored as it is difficult to understand the results without.

Results.

Please provide details on number of midwives in each team rather than stating that they included an average of 10 midwives (nb. which is not consistent with the data included in figure 1) A bit more detail is given in the discussion but fuller descriptions across sites and range of sizes of teams would be helpful.

Discussion. This currently includes data of relevance which would be better placed in the results. For example team size and attendance rates.

I agree with the author that use of more systematic methods with development work derived from a theoretical framework would have been more robust.

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