

## PEER REVIEW HISTORY

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### ARTICLE DETAILS

<b>TITLE (PROVISIONAL)</b>	Interventions targeted at health professionals to reduce unnecessary caesarean sections: A qualitative evidence synthesis
<b>AUTHORS</b>	Kingdon, Carol; Downe, Soo; Betran, Ana Pilar

### VERSION 1 – REVIEW

<b>REVIEWER</b>	Andrew Booth University of Sheffield, UK
<b>REVIEW RETURNED</b>	05-Aug-2018

<b>GENERAL COMMENTS</b>	<p>On the whole this is a well-conducted study that is also well described. There are occasional signs of time pressures when writing it – there is no description of quality assessment and it is not clear whether quality assessments were used to exclude or simply to moderate findings. Similarly the CERQual assessments seem rigorously conducted but the main body of the text does not summarise the results of these and their effect on the evidence base.</p> <p>Omission of studies from South East Asia and South America are surprising and are one reason why I challenge your pronouncement below on your search strategies. Nevertheless the search process is generally well conducted and so I simply suggest lowering your exaggerated claims for the search strategy.</p> <p>Strengths and Limitations of this Study “Our search strategy is likely to have captured all relevant studies published in the time period we covered, in all languages”. This is an unsupported claim that should not be made for any review under any circumstances. For example you have not searched foreign language databases such as Pascal (French) or LILACS for Spanish America. Phrase instead as “Our sensitive search strategy optimises the likelihood that we have identified relevant studies published in the time period in principal journals in English and other languages”.</p> <p>“These findings provide potential mechanisms of effect” - the findings don't “provide” mechanisms, they “identify” them.</p> <p>“Our findings included obstetricians, midwives, and general practitioners” - Prefer “Our findings were derived from....”</p> <p>“too much medicine” is not a keyword, prefer “overtreatment” or “medical waste”</p>
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	<p>“Debate in this area spans four decades and two generations” - what is a generation in this context and how does it relate to decades? Is a generation 70-80 years or does it relate to generations of childbearing age – clarify or reword.</p> <p>“obstetrician’s personal preference” should read “obstetricians’ personal preferences”.</p> <p>“using a meta-ethnography approach” - the way this is currently written this suggests that meta-ethnography has five stages – it is typically described as having eight stages - AND that a CERQual assessment is one of those stages. To avoid confusion I suggest you describe your approach as a “modified meta-ethnography approach”. While use of CERQual is to be welcomed its use within meta-ethnography is largely experimental and cannot be implied to be standard procedure.</p> <p>The Methods Section should describe how quality assessment was conducted, what checklist was used and how the scoring system (with letter categories) works – later referred to in Results.</p> <p>You perform CERQual assessments and report these in the Tables but you do not discuss these in the main body of your article. A brief section on CERQual assessments together with implications for these for your constituent themes would be very helpful (before the brief summary of strengths and limitations which has a couple of brief sentences at a higher less granular level.</p> <p>Ref 36 should read MEDLINE not MEDINE</p>
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<b>REVIEWER</b>	Claudia Hanson Karolinska Institutet
<b>REVIEW RETURNED</b>	31-Aug-2018

<b>GENERAL COMMENTS</b>	<p>Thank you very much giving me the opportunity to review this important synthesis of evidence. The methodology and write up are sound and comply fully with standards. Thus I have only very few comments for considerations:</p> <p>Which data analysis approach was used to derive the Summary of Findings?</p> <p>As the CERQual approach is 'relatively' new, I wonder if the abbreviation should be use in the abstract without explanation?</p> <p>In the method section, para 3 it is not clear how the assessment of full text and the Chinese translation relate to reach other. It feels some part of a sentence was deleted by mistake.</p> <p>Keep the sequence of authors on page 7 according the author sequence?</p> <p>There are a few sentences in the tables which are not fully clear, eg page 9, table 1 “to identify barriers of reduce ...”</p> <p>The paper clearly provides important evidence an a well done synthesis.</p> <p>Again, thank you very much giving me the opportunity to read this</p>
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**VERSION 1 – AUTHOR RESPONSE**

Reviewer: 1 Andrew Booth, University of Sheffield, UK

1. On the whole this is a well-conducted study that is also well described. There are occasional signs of time pressures when writing it – there is no description of quality assessment and it is not clear whether quality assessments were used to exclude or simply to moderate findings. Similarly the CERQual assessments seem rigorously conducted but the main body of the text does not summarise the results of these and their effect on the evidence base.

Thank you for this comment. We hope our additions to the methods section, as described above, address part of this comment. A description of the quality and CERQual assessments is now included in the manuscript as is a sentence confirming that no studies were excluded based on quality assessment. We have also made an addition to the discussion section that summarises the results and their effect on the evidence base.

2. Omission of studies from South East Asia and South America are surprising and are one reason why I challenge your pronouncement below on your search strategies. Nevertheless the search process is generally well conducted and so I simply suggest lowering your exaggerated claims for the search strategy. Strengths and Limitations of this Study. “Our search strategy is likely to have captured all relevant studies published in the time period we covered, in all languages”. This is an unsupported claim that should not be made for any review under any circumstances. For example you have not searched foreign language databases such as Pascal (French) or LILACS for Spanish America. Phrase instead as “Our sensitive search strategy optimises the likelihood that we have identified relevant studies published in the time period in principal journals in English and other languages”.

Thank you for this comment. As suggested, in the article summary, we have reworded the first bullet point to read: Our sensitive search strategy optimises the likelihood that we have identified relevant studies published in the time period in principal journals in English and other languages. We have also amended the same sentence in the discussion section too.

3. “These findings provide potential mechanisms of effect” - the findings don't “provide” mechanisms, they “identify” them. Amended in the Abstract (conclusion) to now read: These findings identify potential mechanisms of effect that could improve the design and efficacy of change programmes to reduce unnecessary caesareans.

4. “Our findings included obstetricians, midwives, and general practitioners” - Prefer “Our findings were derived from...” Amended in the Article summary to now read: – Strengths and limitations of this study - Our findings were derived from obstetricians, midwives, and general practitioners from high, middle and low income countries, and countries with both high and low rates of caesarean section.

5. “too much medicine” is not a keyword, prefer “overtreatment” or “medical waste”

Amended in the manuscript. We have deleted too much medicine and added overtreatment as a keyword.

6. “Debate in this area spans four decades and two generations” - what is a generation in this context and how does it relate to decades? Is a generation 70-80 years or does it relate to generations of childbearing age – clarify or reword.

Thank you for this comment. Whilst we did mean two generations of women of childbearing age, this is no less problematic, therefore for clarity we have deleted this part of the sentence entirely.

The manuscript now reads: Debate in this area spans four decades. [4,10,12]

7. “obstetrician’s personal preference” should read “obstetricians' personal preferences”. Amended in manuscript (introduction) to read: Surveys of obstetricians' personal preferences for CS report rates as high as 46% amongst US obstetricians,[20] but less than 2% amongst Flemish,[21] Norwegian[22] and Dutch obstetricians.[23]

8. “using a meta-ethnography approach” - the way this is currently written this suggests that meta-ethnography has five stages – it is typically described as having eight stages - AND that a CERQual assessment is one of those stages. To avoid confusion I suggest you describe your approach as a “modified meta-ethnography approach”. While use of CERQual is to be welcomed its use within meta-ethnography is largely experimental and cannot be implied to be standard procedure. As suggested, we have added ‘modified’ to this paragraph, which is consistent with both our approach and how we describe it at the beginning of the Methods section.

9. The Methods Section should describe how quality assessment was conducted, what checklist was used and how the scoring system (with letter categories) works – later referred to in Results.

The additions to the manuscript methods section described above address this point too.

10. You perform CERQual assessments and report these in the Tables but you do not discuss these in the main body of your article. A brief section on CERQual assessments together with implications for these for your constituent themes would be very helpful (before the brief summary of strengths and limitations which has a couple of brief sentences at a higher less granular level).

Thank you for this comment. We have added the following brief addition to the manuscript as suggested.

Based on our CERQual assessments of all fourteen SoFs, we have the most confidence in core theme two, which shows how social and cultural context shape health professionals attitudes to change. Within theme one, low confidence in the SoF reporting beliefs about what constitutes necessary and unnecessary suggests further exploration is warranted into the ambiguities surrounding what health professionals may classify as necessary and unnecessary caesareans.

11. Ref 36 should read MEDLINE not MEDINE.

This has been corrected.

Reviewer: 2 Claudia Hanson, Karolinska Institutet

Thank you very much giving me the opportunity to review this important synthesis of evidence. The methodology and write up are sound and comply fully with standards. Thus I have only very few comments for considerations:

1. Which data analysis approach was used to derive the Summary of Findings?

We hope the additions to the Methods section of the manuscript already described help to answer this question.

Our changes mean we now explicitly state in the manuscript 'a modified meta-ethnography approach' and describe the CERQual approach in more detail. There is also the overarching sentence in the abstract explaining that the data were compared and contrasted, then grouped into Summary of Findings Statements (SoFs), themes, and a line of argument synthesis.

2. As the CERQual approach is 'relatively' new, I wonder if the abbreviation should be used in the abstract without explanation? Thank you for this comment. We have amended the abstract to now read: All SoFs were Confidence in the Evidence from Reviews of Qualitative research (GRADE-CERQual) GRADE-CERQual assessed for confidence.

3. In the method section, para 3 it is not clear how the assessment of full text and the Chinese translation relate to each other. It feels some part of a sentence was deleted by mistake.

Thank you for highlighting this. We have amended the sentence so the manuscript now reads:

The full texts of all potentially relevant papers were retrieved and independently assessed by CK and SD, and checked by APB. Three Chinese-language articles [44-46] were assessed following translation into English by a native Chinese speaker.

4. Keep the sequence of authors on page 7 according to the author sequence?

Thank you for this suggestion too. We have amended the manuscript as suggested. It now reads:

Reflexivity is a key component of qualitative research. [52] CK, a medical sociologist, came to the project with prior beliefs about the complexity and interdependency of social factors driving CS rates, principally informed by undertaking earlier primary research with women and health professionals in the UK. [24,53] SD, a Professor of Midwifery, has experienced the barriers clinical staff encounter when they try to use their clinical judgement and skills alongside personal values and knowledge of the current evidence base, and the views and choices of childbearing women, to decide if a particular test or treatment is appropriate for a particular mother and/or baby, rather than just applying the same rules to all regardless of need or choice. APB is a medical officer with over 15 years of experience in maternal and perinatal health research and public health and has witnessed the sense of helplessness and the barriers governments experienced when trying to reduce unnecessary CS.

5. There are a few sentences in the tables which are not fully clear, eg page 9, table 1 “to identify barriers of reduce ...” This paper clearly provides important evidence and a well done synthesis. Again thank you for the opportunity to read this.  
Thank you. We have carefully checked all the tables and amended the typographical errors.

We have removed the figure 2 legend in the manuscript as requested, as a formatting amendment from the editorial office.

All amendments in the revised manuscript are highlighted in red text. As suggested we have taken this opportunity to check this revised submission carefully. We have updated references 29,49,90 and 91.