Reviewer’s report

Title: A mega-ethnography of eleven qualitative evidence syntheses exploring the experience of living with chronic non-malignant pain

Version: 0 Date: 17 Apr 2017

Reviewer: Jane Noyes

Reviewer's report:

Thank you for asking me to review this methodological review that demonstrates the new application of meta-ethnography to synthesise qualitative evidence syntheses, and the new application of two tools that were originally designed for application at review (and not review of review) level. I was delighted to see the manuscript and read it with great interest. There are two conflicts of interest to declare. First I am a co-convenor of the Cochrane Qualitative and Implementation Methods Group (QIMG), which is mentioned in the paper, and second I am a member of the group that developed CERQual.

Overall summary:

Although of great interest to methodologists, the manuscript tries to demonstrate too much. The obvious strength of this work is the application of meta-ethnography principles in this new context. This by itself would be a major contribution to the science of evidence synthesis. The weakness is trying to apply CERQual and Conqual in this context. There is a lot of methodological work that still needs to be done to see if and how CERQual (and presumably Conqual) can be applied at the level of a systematic review of reviews.

The steer would be to demonstrate one new methodological application well in this manuscript (ie meta-ethnography) and drop (for now) the application of CERQual and Conqual, which flag many unresolved methodological issues that have not yet been adequately thought through or resolved.

I hope that the following points are helpful in further developing the manuscript:

1. Background. It is correctly stated that QIMG supports the synthesis of qualitative studies for publication in the Cochrane library alongside a quantitative systematic review on the same intervention. Nonetheless, meta-ethnography is not yet recommended for use as a Cochrane methodology by QIMG. The issue is that meta-ethnography is an approach to build theory and Cochrane reviews are undertaken for a decision-making context such as an evidence to
recommendation guideline process. Guideline panel members are generally uncertain about making recommendations based on propositions, conjectures or theories (which meta-ethnography is designed to develop). Cochrane's reputation is built on 'Trusted evidence, Informed decisions, Better health. More methodological testing is required to demonstrate the application of meta-ethnography in a Cochrane and decision-making context. There is a need to provide clear guidance on how to report findings to distinguish the supporting underpinning primary studies, expert opinion or hypotheses. Cochrane also takes an evidence-based development approach to methods (and hence this manuscript is interesting). A 'test' protocol for conducting a meta-ethnography has been published in the Cochrane library and the review will be undertaken by a highly experienced team, and supported by the EPOC group and QIMG.

2. The application of meta-ethnography principles and stages for the synthesis of published qualitative reviews works well.

2.1. Of note a very broad aim is specified. No review question is articulated or question formulation framework used to further refine the review parameters and context. This creates a major methodological issue for conducting a qualitative synthesis in a decision-making context to which CERQual could be applied. Also see comments below.

2.2 It does not appear that a refutational analysis was undertaken and this requires addressing to complete the meta-ethnography stages. Even if there was no 'refutational' evidence that contradicts or tells a different story to the translational synthesis, this should be reported to complete all the stages of meta-ethnography.

3. CERQual was designed to make assessments about the confidence in synthesised findings derived from qualitative studies in a qualitative evidence synthesis. There has yet been no methodological testing of applying CERQual to a review of reviews and reading the manuscript a host of methodological issues are apparent that need unpacking and further thinking through.

3.1 CERQual was designed to apply to qualitative evidence syntheses that are going to be used in a decision-making context such as a guideline panel. The process requires the detailed specification of a review question and context. Context would include all relevant aspects of the phenomena of interest - such as population, geographical location, type of health system, sub groups of interest and equity considerations. The lack of a review question and detailed specification of the context in the current review creates an unsolvable issue when trying to apply CERQual. Hence the authors found it challenging to apply all the CERQual domains, and their interpretation and adaptation of the domains for this review of reviews does not match with the original approach.
3.2 The CERQual approach entails making 4 assessments about the primary studies contributing to a finding. It does not fit with the CERQual principles to assume that the source review is a ‘primary’ study. Logically, CERQual would need to be applied to the primary studies and findings in source reviews before it can be applied to a systematic review of reviews. It is very common to retrospectively apply GRADE to a published quantitative intervention review. The CERQual group have thought about this and undertaken some initial methodological testing, but are not yet ready to publish guidance on retrospectively applying CERQual to a published qualitative evidence synthesis.

3.3 The CERQual group have done a lot of work to evaluate the application of the approach at the level of thematic synthesis findings. Current guidance on the application of CERQual is at the level of thematic synthesis. Selected findings are presented in a specific way in a summary of findings table for the application of CERQual. It is not yet clear if or how this could be achieved in a review of reviews. See also 3.6

3.4 The CERQual group have yet to undertake the methodological work to apply CERQual to the level of theory building or logic modelling that present a combination of evidence from primary studies and theory building (propositions, conjectures, expert opinion etc).

3.5 The CERQual group have developed a minimum set of criteria that need to be demonstrated in order to say that CERQual has been applied. In this context it does not appear that these criteria have been met.

3.6 The CERQual group are about to publish a series in Implementation Science that provides more detailed guidance on criteria for judging the methodological strengths and limitations of studies, issues to consider when including or selecting studies, and the general application of the approach in qualitative evidence syntheses. It would be good if the authors would consider joining the CERQual working group to work together to address the current methodological issues identified in this review, and then further develop and test the approach in a review of reviews.

4. I cannot comment on Conqual - but assume that similar methodological issues will apply.

Other comments:

5. 'The Cochrane Collaboration has a register for protocols of qualitative systematic reviews being undertaken under the aegis of the Cochrane Qualitative and Implementation Methods Group. However efforts to register reviews are complicated by varying opinions vis-à-vis quality'. This statement warrants further clarification. Thus far it has been more of an issue of prioritising questions and demonstrating the application of methods in a Cochrane
context through careful testing. It is not just a question of review 'quality', it is more an issue of the availability of the appropriate expertise and resources within review groups to add an additional qualitative synthesis to an intervention review, and the willingness of Editors to register titles. Some review groups such as EPOC have high level qualitative synthesis expertise and have prioritized a lot of questions amenable to qualitative evidence synthesis that would add value to the corresponding intervention review.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

No

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I am a co-convenor of the Cochrane Qualitative and Implementation Methods Group (QIMG), which is mentioned in the paper, and second I am a member of the group that developed CERQual.

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