Author's response to reviews

Title: Meta-ethnography 25 years on: challenges and insights for synthesising a large number of qualitative studies

Authors:

Francine Toye (frantoye@hotmail.com)
Kate Seers (Kate.seers@warwick.ac.uk)
Nick Allcock (Nick.Allcock@gcu.ac.uk)
Michelle Briggs (m.i.briggs@leedsmet.ac.uk)
Eloise Carr (ecarr@ucalgary.ca)
Karen Barker (karen.barker@ouh.nhs.uk)

Version: 2 Date: 23 May 2014

Author's response to reviews: see over
Meta-ethnography 25 years on: challenges and insights for synthesising a large number of qualitative studies - Response to Reviewers

We would like to thank the reviewers for the time taken to review our manuscript. We think that the revised manuscript is improved as a result of this detailed review. Please consider our responses to your suggestions set out below:

Reviewer: Monika Kastner

We are very pleased that you felt that our article is of importance in its field and have responded to your suggestions below:

1. My major suggestions would be to clarify the purpose of the paper a bit more, and to supplement the sections and discussion with examples from the actual review that was conducted/published to strengthen the applicability of concepts for others conducting such reviews.

Response: Thank you. We have now clarified the purpose of the paper as suggested. We agree that examples would be helpful and have supplemented the sections with examples. We also refer readers to the detailed report and appendices previously published from the main study which are accessible on-line (open access).

2. Background: It would be helpful to focus and clarify the objective(s) a bit more in the background section. Apart from the title, I didn’t really get that you were discussing the challenges of meta-ethnography until I started reading further on

Response: We have now clarified our aim at the outset of the discussion.

3. Getting started: Does qualitative synthesis fit the qualitative research ethos? What do you mean by “ethos” exactly? Given that meta-ethnography is becoming a knowledge synthesis tool for use across many different fields, it might be helpful to keep the language more ‘neutral”

Thank you for this insightful comment. We have removed the word ethos and replaced this with:

‘A first consideration is whether or not we think that research synthesis fits a qualitative approach which aims to focus on the idiographic or unique contextual experience, or whether synthesis removes us too far from the idiographic to reveal truth? In short, are the findings of qualitative synthesis valid?’
4. Is a synthesis of this topic needed? You mention that attending a Society meeting informed the need to conduct a qualitative synthesis on chronic musculoskeletal pain – are there other ways that needs for a knowledge synthesis inquiry could be discovered?  

Response: There are multiple ways in which the need for knowledge synthesis arises. We have added a sentence to encourage the reader to consider this.

5. What experience does the team need? It might also be worth mentioning that the thoughtful consideration of team experience the way you describe it, is also related to the concept of integrated knowledge translation (i.e., the involvement of all relevant stakeholders in the planning and execution of the review will ensure that the knowledge will be applicable and relevant to them).

Response: Thank you. This is an important point and we have added:

‘Involving relevant stakeholders in the planning and execution of a qualitative synthesis will also help to ensure that the knowledge is applicable and relevant, thus having a positive effect on knowledge translation’.

6. What type of qualitative synthesis is appropriate? When you describe the various other available methods for synthesizing qualitative research (in the first sentence), it would be helpful to say what these are

Response: We had not referred in detail to other approach or the Pros and Cons of these different approaches. We could not do justice to the methodological breadth in this article but agree that it is important to provide some examples as suggested, and refer the readers to useful reviews of this work, as follows:

‘There are various methods for synthesising qualitative research (1-5). For example, Barnett-Page and Thomas identified: meta-narrative, critical interpretive synthesis, meta-study, meta-ethnography, grounded formal theory, thematic synthesis, textual narrative synthesis, framework synthesis and ecological triangulation (5). A central distinction made between synthesis approaches is between (a) those that that aim to describe or ‘aggregate’ findings and (b) those that aim to interpret these findings and develop conceptual understandings or ‘theory’. As our aim was to develop conceptual understanding, rather than aggregate findings meta-ethnography was an appropriate method of synthesis.

7. I like that you considered which approach is most suitable to answer your research question – this could be highlighted more as most knowledge syntheses do not consider this step

Response: Thank you. We have emphasised this by adding a sentence in the revised manuscript.

8. It might be good to also discuss how resources might affect which knowledge synthesis method you might select to answer your question… and who should make these decisions.

Response: We have added:
'An important consideration for research stakeholders is the impact of available resources (or lack of) on the integrity of knowledge synthesis, and where, how and who to draw these lines'.

9. Searching and screening: You describe a number of qualitative search filters - Have you considered the empirically-tested methodological search filters for qualitative studies developed by McMaster University for Medline (Wong, 2004); CINAHL (Wilczynski 2007); PsycINFO (McKibbon 2006) and EMBASE (Walters 2006)?

Response: Thank you; these are the search filters that are found on the ISSG that we refer to. We have now included the specific references that you provide.

10. Reading the studies: # How was data abstraction done and was it done in duplicate? Did you annotate the PDFs or transfer the data to another database. How did you develop the form?

Response: We have clarified data extraction methods. In short, we did not use a data extraction form but worked directly from PDFs embedded in NVivo:

We did not use a data extraction form but rather uploaded a PDF version of the complete study onto NVivo 9 software (29). This allowed us to code conceptual findings wherever they appeared within the paper, and compare individual team interpretations within one database. If the team member chose to work from the original paper file, FT transferred their individual memos onto the NVivo database. NVivo is particularly useful for collaborative analysis as it allows the team to keep a record and compare how each team member interprets the data. NVivo 9 also allows the researchers to write and link memos to specific data in order to keep track of developing ideas. This software allowed us to classify certain study characteristics such as: author; journal; year of publication; type of pain; number and age of participants; source and country of participants (e.g. pain clinic in UK); method of data collection (e.g. interviews); methodological approach (e.g. grounded theory). In this way, we did not need to develop a data extraction form, and were able to go back and read the original paper many times over in order to remain grounded in the primary papers. FT and JA also maintained an excel database of study demographics, appraisal scores and decisions on inclusion or exclusion.

11. Determining how studies are related to each other: # It would be great to provide an example of how this “relatedness” analysis is actually done re: creating a list of metaphors, phrases, ideas and concepts. An example showing the difference between 1st and 2nd order constructs would also be helpful to understand this

Response: We agree this is a good idea and have included a worked example of from first order, through primary second order to collaborative second order.

A worked example of collaborative interpretation:

Smith and Osborn describe the concept ‘negative impact on self’ (32). They use exemplars from the patient’s own words (first order constructs), for example:

FIRST ORDER CONSTRUCT:
It’s not who I am it’s just who I am if you know what I mean, it’s not really me, I get like that and I know like, you’re being mean now but I can’t help
it. It’s the pain, it’s me, but it is me, me doing it but not me do you understand what I’m saying?

Smith and Osborn describe their interpretation of this concept in depth throughout the results (720 words), discussion (147 words) and conclusion (56 words) of their paper, for example:

SECOND ORDER CONSTRUCT: The notion of the self emerged in this study as an important aspect of the participants’ experience of chronic pain sensation, distress and disability. Their chronic pain assaulted and undermined their sense of self and the struggle to maintain a valued or coherent self was, at times, more unpleasant than enduring the physical sensation of pain.

After reading Smith and Osborn’s paper, three team members wrote individual interpretations of this concept:

Researcher 1: Pain can have a drastic effect on sense of self and identity; the 'mean me' as a result of pain outside self; engaged in battle against new self to keep 'true self'; this struggle is more distressing than the pain itself

Researcher 2: Pain can impact one's identity and perception of self significantly, resulting in denigrative mental inner conflict between the 'two selves': the 'mean me' and the 'nice me'. There is a battle to 'retain a good self' and this struggle can be more distressing than even the pain itself.

Researcher 3: Negative impact of pain – pain influences behaviour so not the person really are – the nice and nasty (pain driven) parts of me.

FT then combined these interpretations into a concise interpretation that became the primary ‘data’ of the meta-ethnography. This interpretation remained linked to the source data through the NVivo database.

SMITH 2007: NEGATIVE IMPACT ON SELF
Pain significantly impacts on one's identity and perception of self, resulting in denigrative mental inner conflict between the 'two selves': the 'mean me' and the 'nice me'. There is a battle to 'retain a good self' and this struggle can be more distressing than even the pain itself.

12. One of the strengths of your review is that you used a collaborative approach to interpreting second order constructs, and I like how each member did their own interpretation first and then came together to interpret the final concept – I would really highlight this in the discussion

Response: Thank you. We did find this a strength of the method we used and have highlighted this further in the discussion

13. So the untranslatable concepts identified were in fact a kind of exclusion criteria?
Response: Yes this is a nice way of describing what they were and we have added a sentence saying this:

In this way, the untranslatable concepts identified became our exclusion criteria.

14. Translating studies into each other: # Again an example would be really great in this section also #

Response: We have included an example of this and referred to the full open access report.

15. Is grounded theory typically the method used to translate studies into each other or can other qualitative methods be used?

Response: We have taken out ‘Grounded Theory’ as this constant comparison underlies other qualitative approaches, not exclusively GT.

16. Synthesizing translations: # How is the process of developing a “line of argument” different than the using the constant comparative method of grounded theory to translate studies into each other? – the distinction between these two steps is not clear

Response: We agree this is not clear enough and have rewritten to clarify. One of the difficulties in reporting the stages of qualitative analysis is that there are no distinct stages. The stage of synthesising is a further level of abstraction that is on-going.

17. Expressing the synthesis. # You may want to discuss integrated knowledge translation here, and how involving relevant stakeholders from the beginning can facilitate the effect translation of knowledge to the right person (and to have the most appropriate messenger for each of these messages)

Response: We agree that this is very important and now discuss it.

18. You could also distinguish between more passive strategies (publications, presentations) vs. more active strategies such as the short film you developed, or any other subsequent meetings with stakeholders to disseminate the knowledge

Response: You raise an important issue here and we have expanded this section to include it as follows:

Involving relevant stakeholders from the beginning can facilitate effective and appropriate knowledge transfer. It may also be useful to consider other means of dissemination alongside more conventional methods (peer-reviewed publications, presentations, teaching, conferences) Active measures to promote knowledge transfer (KT), ‘the exchange, synthesis and application of research results’ (37) (page 1), should be seriously considered . Chalmers and Glasziou suggest that as much as 80% of money invested in research is wasted, partly through ineffective KT (38). However, despite increasing investment and the requirement to demonstrate the impact of research, the research-practice gap remains (37, 39, 40). One of our planned outputs from the meta-ethnography was a short film, ‘Struggling to be me’, produced in collaboration with a media agency based at Bournemouth University (Red Balloon). This film, produced from a script constructed from narrative interviews and performed by an actress, is available on NIHR Youtube. The film received around 3, 5000 hits in the first six months.
Performative social science (41, 42) uses non-traditional media, such as film, to perform research findings and maximise knowledge translation (43). In the process of presenting research findings through film, the focus shifts to whether these findings evoke, provoke and stimulate ideas (42). Our monthly team meeting included ‘Impact Plan’ as a regular agenda item. On-going impact activities include research in collaboration with Cardiff University where the film has been utilised as part of a teaching module on pain; in collaboration with Pain Concern UK; within the Hot Topics GP Update course for GPs and the Royal College of General Practitioners guidelines for engagement with commissioners. One of the issues to consider within the impact plan is ensuring that the time allocated to impact is adequately funded. In short, impact is on-going and is unlikely to fit neatly into a window on a Gantt chart. More research to explore the utility of innovative methods for maximising the impact of qualitative research would be useful.

19. Discussion. I would suggest adding a few more discussion points: Are there other examples of studies that include a large number of qualitative studies in a qualitative systematic review? (for example realist review which can include both quantitative and qualitative data; or a Meta-study which also focuses exclusively on the inclusion of qualitative literature)

We have expanded the discussion to discuss relative sizes of meta-ethnography and other approaches and refer to Barnett-Page’s summary of approaches.

‘Reviews of published qualitative syntheses show that most meta-ethnographic syntheses include up to around 40 studies, and only a very small number include more than 40 (2, 4, 6). There are other synthesis approaches that might include a larger number of studies5’
Reviewer: Camille Brisset

Thank you for acknowledging the tremendous work of conducting this large meta-ethnography. Please find our response to your review comments below:

1. While I completely agree on the many challenges of conducting ME, I do not believe all are due to the number of included studies. It surely adds difficulty but deciding on what is relevant to include in a ME or what team expertise is needed for example is part of the process independently of that number. I would nuance each steps accordingly...

Response: We have now clarified which points are pertinent to scale and those that are not.

2. I do not quite grasp the proposed method in itself and I doubt that in its present form, one will be able to use it. For each step/challenges encountered, the paper would gain in relevance by indicating clearly what was done/chosen in the end. Was an exhaustive literature search conducted? Were papers excluded based on their “poor” quality? Etc. In the same vein, I do not quite understand how the authors interpreted second order constructs and translated studies into each other. Did they “just” all worked separately then talked about it in group? There has to be a starting point or an “index” paper somewhere, somehow. I also believe that Appendix 1 and 2 should not be treated as appendices as they provide details on the proposed method.

Response: We have thoroughly checked to ensure that our decisions are explicit at each stage. In response to comments from both reviewers we have clarified our method with examples to aid the reader. We have refined our use of translation and synthesis to clarify our approach and given examples.

In response to the reviews question: ‘Did they “just” all worked separately then talked about it in group?’ In short, yes, as with all qualitative approaches we found that meeting and talking collaboratively was the most effective way of developing a conceptual model that considered interpretations from different perspectives. This is the strength of the approach that we used.

We do not agree that an index paper is necessary for meta ethnography and have outlined our rationale for this below. Noblit and Hare are explicit in their use of constant comparison to translate studies into each other.

The decision to use an index paper may rest partly on the number of studies to be synthesised. We knew that this meta-ethnography would include a large number of studies, and comparing concepts across studies from an index paper in this way was likely to be unwieldy. There are also methodological issues to be considered if using an index paper to orientate analysis. One could argue that using an index paper is comparable to being constrained by a priori concepts. There is also the problem of how to decide which paper to use as an index paper, particularly as it can potentially have a dramatic effect on the resulting interpretation. Also, how do we define a ‘classic’ paper when there is no consensus about what makes a study ‘good’ (6, 13, 32). We also need to consider that qualitative analysis does not start when the fully body of data is collected but continues alongside data collection. Thus we may not find the conceptually ‘richest’ study at the outset.

Appendix one and two are not integral to the process but provide supplementary information.
3. The authors mentioned in the Abstract and in the Background that researches have used different rigorous methods to produce syntheses. What are they? And what are the other ways of approaching ME? Other MEs with a large number of papers have been conducted. I have personally used the Matrix method (Garrad, 1999, 2011) on 61 qualitative articles to organise the data. I surely do not imply that it is the only way to go about it but the reader needs to know what are the advantages and limits of the proposed method. As for now, this is not clear to me.

Response: We have not discussed other approaches. We now include some examples and refer readers to useful summaries (e.g Barnett-Page). We could not do justice to the breadth of method in this article and have now clarified our focus in this rewrite.

4. Some concepts need to be (more) defined, such as “translation” and “line of argument”. What we understand of these concepts and how we apply them is part of the challenges of conducting a ME.

Response: We agree this is a challenge of meta-ethnography and have rewritten our definitions to clarify. We have also rewritten method as suggested by reviewers 1 and 2.

5. In the Discussion, do the authors imply that social science researches are not scientific? I would choose more carefully the words here as it is a very delicate debate, just like the one between quantitative and qualitative researches.

Response: We did not want to imply this and agree it is a delicate debate that should be explored and hinges on our definition of science and knowledge. We have change the terminology to medical research culture and social science research culture.

MINOR ESSENTIAL REVISIONS

6. The aim of the paper is stated 3 times in the Abstract. We aimed to build on […] (background) / This paper describes our method […] (methods) / […] to produce a large ME synthesis […] (results). I am also not quite sure about the relevance of stating that Other researches have used different rigorous methods to produce syntheses, often including a smaller of studies in the results section of the abstract.

Response: We have rewritten the abstract to remove repetition as suggested. We also agree that the sentence (other researchers . . .etc.) does not add to the abstract, so have removed it.

7. Appendix 2 is very technical and makes it difficult to follow what was done. Was each article treated as a sub-code within the coding tree? Is a node a code? Please consider using more generic qualitative terminology. Also, can other qualitative software, like QDA-Miner, be used?

Response: This appendix is intended for Nvivo users and is not integral to the main file. We did not use QDA-Miner and are not familiar with it so cannot comment.

8. I would provide more than a reference to figure 1 to describe Noblit and Hare stages. Or at least, clearly indicate that headings 1. to 7. refer to them (in the heading itself for example). I believe it will be easier to follow with a reminder of what the steps are.

Response: We have now added these.
9. Check for typos throughout the manuscript (please see the “Minor issues not for publication” section below).

**Response:** We have now checked thoroughly.

**DISCRETIONARY REVISIONS**

10. Please consider synthetizing the 2nd and 3rd sentence in the background section.

**Response:** We agree and have done this

**MINOR ISSUES NOT FOR PUBLICATION**

- Noblit & Hare versus Noblit and Hare - done
- NVivo versus Nvivo - done
- Brackets versus parentheses for citing references in the text (e.g., [44]) – have changed square brackets to round brackets
- Pages in a reference for a citation. The information is often missing - have included page numbers that are missing
- Please check for the “ENREF 54 ENREF 55” in “Quality appraisal” – removed as in error
- Please check for the missing spaces (e.g., “Do I need to do an exhaustive Literature search”, 1st paragraph, only2-6studies(6)) and the double spaces - checked
- Please check for punctuation typos (e.g., “3. Reading the studies”, […] the data for the analysis. (28).” / There are two endpoints) – checked
- Please check for typos in the reference list (e.g., references 13, 33 and 36) – checked
- Please check for the tenses, past versus present - checked
- Please consider presenting internet links as a reference in the reference list at the end of the manuscript – have done this
- The statement “reflexive statement” is missing from the second citation in the “Do I need to do an exhaustive literature search?” – have added
- The Figure legends section does not quite follow the guidelines. What is the title of each figure? – have added titles
- There is a spelling error in Figure 1 in the “step 5” box. There is an extra “i” in “studies” – thanks have corrected
- What do the ABCD / BCDB /ABCC / DABD codes refer to in Figure 2 – have removed.