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Abstract

Developing a reporting guideline to improve meta-ethnography in health research: the eMERGe mixed-methods study

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Background: Meta-ethnography is a commonly used methodology for qualitative evidence synthesis. Research has identified that the quality of reporting of published meta-ethnographies is often poor and this has limited the utility of meta-ethnography findings to influence policy and practice.

Objective: To develop guidance to improve the completeness and clarity of meta-ethnography reporting.

Methods/design: The meta-ethnography reporting guidance (eMERGe) study followed the recommended approach for developing health research reporting guidelines and used a systematic mixed-methods approach. It comprised (1) a methodological systematic review of guidance in the conduct and reporting of meta-ethnography; (2) a review and audit of published meta-ethnographies, along with interviews with meta-ethnography end-users, to identify good practice principles; (3) a consensus workshop and two eDelphi (Version 1, Duncan E, Swinger K, University of Stirling, Stirling, UK) studies to agree guidance content; and (4) the development of the guidance table and explanatory notes.

Results: Results from the methodological systematic review and the audit of published meta-ethnographies revealed that more guidance was required around the reporting of all phases of meta-ethnography conduct and, in particular, the synthesis phases 4–6 (relating studies, translating studies into one another and synthesising translations). Following the guidance development process, the eMERGe reporting guidance was produced, comprising 19 items grouped into the seven phases of meta-ethnography.

Limitations: The finalised guidance has not yet been evaluated in practice; therefore, it is not possible at this stage to comment on its utility. However, we look forward to evaluating its uptake and usability in the future.

Conclusions: The eMERGe reporting guidance has been developed following a rigorous process in line with guideline development recommendations. The guidance is intended to improve the clarity and completeness of reporting of meta-ethnographies, and to facilitate use of the findings within the guidance to inform the design and delivery of services and interventions in health, social care and other fields. The eMERGe project developed a range of training materials to support use of the guidance, which is freely

available at www.emergeproject.org (accessed 26 March 2018). Meta-ethnography is an evolving qualitative evidence synthesis methodology and future research should refine the guidance to accommodate future methodological developments. We will also investigate the impact of the eMERGe reporting guidance with a view to updating the guidance.

Study registration: This study is registered as PROSPERO CRD42015024709 for the stage 1 systematic review.

Funding: The National Institute for Health Research Health Services and Delivery Research programme.

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List of abbreviations

CERQual	Confidence in the Evidence from Reviews of Qualitative research
CINAHL	Cumulative Index to Nursing and Allied Health Literature
eMERGe	meta-ethnography reporting guidance
ENTREQ	enhancing transparency in reporting the synthesis of qualitative research
EQUATOR	Enhancing the QUAlity and Transparency Of health Research
GRADE	Grading of Recommendations Assessment, Development and Evaluation
LOA	line of argument
NICE	National Institute for Health and Care Excellence
NIHR	National Institute for Health Research
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
SIGN	Scottish Intercollegiate Guidelines Network

Plain English summary

Many research studies are carried out that ask people about their experiences; for example, the research may ask people what it is like to live with an illness or ask about their experience of health care or different types of treatment. When several studies have been carried out on the same research topic, it can be useful to pull the findings of those studies together and see whether or not more can be understood about the topic by looking at all the different findings and viewpoints in the studies. Meta-ethnography is an approach for helping researchers to pull together these types of studies. Before this project started, we had identified that a lot of research that used this approach did not include important information which could let the reader know how the research team had pulled the studies together and come up with their findings.

At that time, there were no guidelines about what information researchers should include in their reports when they had used this approach. During this study, we have developed guidance for how to report this research approach. We followed several steps to develop the guidance, including (1) gathering advice that other researchers had published about what should be reported; (2) checking what has been reported well and not so well in reports using this approach; (3) asking a wide range of people, including experts, users and patients, what they think should be included in reports that use this approach; and (4) pulling together all this information to produce the guidance and getting feedback on the guidance from a wide range of people. We hope that this guidance will help to improve the quality of meta-ethnography reporting. We have produced training materials, which are available at www.emergeproject.org (accessed 26 March 2018).

This plain English summary was developed in conjunction with two lay members of the Project Advisory Group, Geoff Allan and Ian Gallagher.

Scientific summary

Background

Meta-ethnography is a widely used and thorough qualitative synthesis method in which researchers select, analyse and interpret qualitative studies to answer focused questions on a specific topic (e.g. people's experiences of having, and being treated for, arthritis). Meta-ethnography is suited to developing theory and can lead to new conceptual understandings of complex health-care issues.

Findings from high-quality meta-ethnographies have been used in clinical guidelines. However, the reporting quality of published meta-ethnographies varies and is often poor. The analytic synthesis process is particularly poorly described. Users of research evidence need clear reporting of the methods, analysis and findings to be able to asses, use and have confidence in the output of meta-ethnographies. A generic guideline for reporting qualitative evidence synthesis exists. However, meta-ethnography has unique, complex analytic synthesis processes that are not covered by the generic guideline, and bespoke guidelines are required to improve the completeness and clarity of meta-ethnography reporting.

A systematic, mixed-methods approach is recommended for good practice in developing reporting guidance including literature reviews, workshops involving methodological experts, consensus studies, and developing a guidance statement and an accompanying explanatory document. The meta-ethnography reporting guidance (eMERGe) project followed this approach to create evidence-based meta-ethnography reporting guidance.

Objectives

The eMERGe project aimed to create evidence-based meta-ethnography reporting guidance, by answering the following research questions:

- What are the existing recommendations and guidance for conducting and reporting each process in a meta-ethnography, and why?
- What good practice principles can we identify in meta-ethnography conduct and reporting to inform recommendations and guidance?
- From these good practice principles, what standards can we develop in meta-ethnography conduct and reporting to inform recommendations and guidance?
- What is the consensus of experts and other stakeholders on key standards and domains for reporting meta-ethnography in an abstract and main report/publication?

Methods of guidance development

The project included four key stages, conducted by the project team, in consultation with one of the originators of meta-ethnography, Professor George Noblit, and supported by a Project Advisory Group of national and international academics, policy experts and lay advisors who had an active role in the development of the guidance and whose contribution was central throughout the project.

Stage 1 involved a systematic review of methodological guidance using comprehensive literature searches, from which we identified good practice principles and recommendations for conducting and reporting meta-ethnographies.

Stage 2 involved a review and audit of published meta-ethnographies. There were three parts to this stage of the project: (2.1a) documentary analysis of a sample of both seminal and poorly reported published meta-ethnographies, (2.1b) exploration of professional end-user views on the utility of seminal and poorly reported meta-ethnographies for policy and practice and (2.2) an audit of published health- or social care-related meta-ethnographies to identify the extent to which they met the good practice principles and recommendations identified in stages 1, 2.1a and 2.1b.

Stage 3 involved finding consensus on the reporting items through an online workshop and two identical eDelphi (Version 1, Duncan E, Swinger K, University of Stirling, Stirling, UK) consensus studies that were run in parallel: one with meta-ethnography method expert participants and another with key stakeholders who use synthesised evidence (i.e. professional evidence users and patient and public representatives). These groups were separated, as each brings specific expertise and could have potentially different views on the importance of specific items.

Stage 4 covered the development of the guidance table, reporting criteria, explanatory notes and extensions to the guidance, along with training materials to support the use of the guidance. This process was iterative, and involved input from the project team and the wider Project Advisory Group.

Results

Fifty-seven papers that gave methodological guidance about meta-ethnography reporting or conduct were included in the stage 1 systematic review. The analysis of these papers identified that more clarity is required in reporting the methods for selecting a qualitative evidence synthesis methodology, and in how the reading, translation and synthesis phases (4–6) of meta-ethnography are conducted.

The documentary analysis of 29 seminal and poorly reported meta-ethnographies (stage 2.1a), together with the interviews of potential end-users of meta-ethnographies (stage 2.1b), enabled us to identify good practice principles and contributed towards our development of standards in the reporting of meta-ethnographies.

From the results of stages 1, 2.1a and 2.1b, we identified good practice principles and standards that we then developed into an audit tool of 109 measurable provisional standards. After applying these standards to 19 published meta-ethnography papers in an audit, we reviewed and refined the provisional standards to create 69 reporting items for the eDelphi studies.

Sixty-two people (39 experts and 23 professional/lay people) completed all three rounds of the eDelphi studies (stage 3). Four items failed to reach consensus in both eDelphi studies and so were excluded from the final guidance. Participants reached consensus that 65 out of 69 items should be included in the guidance.

The final reporting criteria for the guidance were developed from the 65 items that met consensus in the eDelphi studies. A small writing group was formed to write the guidance table and explanatory notes. During the writing process, the writing group sought regular feedback from the wider project team and the Project Advisory Group. The guidance was developed through a series of iterations, with feedback being sought on specific issues, namely the structure of the guidance, merging related items, readability and usability of the guidance, and checking against the eDelphi items. Members of the Project Advisory Group and project team reviewed and agreed the final guidance table and explanatory notes.

The project team developed training materials to support use of the guidance, including four short films about meta-ethnography reporting and a webinar about how to use the guidance material. The training material is freely available online at www.emergeproject.org (accessed 26 March 2018).

Conclusions

The eMERGe meta-ethnography reporting guidance has been developed following a rigorous and systematic mixed-methods approach, as recommended in guidelines for developing health research reporting guidelines. The guidance was developed to improve the clarity and completeness of meta-ethnography reporting, and to maximise the value and utility of meta-ethnography for informing policy and practice decisions. In future, the guidance may need to be refined or updated to encompass methodological advances and accommodate changes identified after evaluation of the impact of the guidance.

Study registration

This study is registered as PROSPERO CRD42015024709 for the stage 1 systematic review.

Chapter 1 Introduction

The design and delivery of health and social care services requires robust research evidence to aid decision-making. Drawing together a body of research through synthesis is an effective and efficient approach to evidence provision. At the time this project commenced in 2015, the Department of Health's[1] policy recognised that evidence-based decision-making required both qualitative and quantitative research. Synthesis through systematic reviews of quantitative research is well established as a means by which to contribute to evidence-based health care;[2] such syntheses can indicate clinical effectiveness and cost-effectiveness of interventions and treatments and provide information on disease epidemiology. In contrast, syntheses of qualitative research studies (we refer to these as 'qualitative evidence syntheses') can show patients' experiences of, for instance, health-care services and treatments, interventions and illnesses[3–5] and, thus, also have potential to inform health-care decisions.[3,6]

Syntheses of qualitative research are an accepted, but relatively new, addition to the health-care evidence base. The Cochrane organisation, which aims to gather and summarise the best evidence from health-care research, established the Cochrane Qualitative Research Methods Group in 2004 to advise and produce guidance on the incorporation of qualitative evidence in Cochrane systematic reviews.[7,8] In addition, qualitative evidence syntheses have been used recently to inform, for example, the National Institute for Health and Care Excellence (NICE)[9–11] and the World Health Organization clinical guidelines.[12]

Numerous approaches for synthesising qualitative research studies exist, which are suited to different purposes and kinds of study data.[13–16] Meta-ethnography is the most widely used qualitative evidence synthesis approach in health and social care research[17] and has been highly influential in the development of other synthesis approaches.[6,18,19] Meta-ethnography is suited to developing theory and can lead to new conceptual understandings of complex health-care issues, even in heavily researched fields.[6,14,15,20] As such, meta-ethnography has the potential to influence health care; indeed, evidence from meta-ethnographies has been included in, for instance, the 2009 NICE clinical guideline on medicines adherence[9–11] and the 2016 Scottish Intercollegiate Guidelines Network (SIGN) guideline on asthma management.[21–23]

What is meta-ethnography?

Meta-ethnography is an approach to synthesising a collection of individual qualitative research studies on a particular issue or topic, for example the experience of having type 2 diabetes mellitus.[24] The theoretically based approach was developed by sociologists Noblit and Hare[25] in the field of education to synthesise interpretive qualitative studies. Meta-ethnography is inductive and interpretive, focusing on 'social explanation based in comparative understanding rather than in aggregation of data' (p. 23);[25] it does not involve simply summarising study findings, but seeks to go beyond the findings of any one study to reach new interpretations. Although originally designed to synthesise ethnographies,[25] meta-ethnography can be, and has been, used to synthesise many different types of interpretive qualitative study.[2] The meta-ethnography approach is carried out through seven overlapping phases, as summarised in *Figure 1* and inspired by Noblit and Hare.[25]

Meta-ethnography is unique among qualitative evidence synthesis approaches in using the study author's interpretations, that is, the concepts, themes or metaphors from study accounts, as data. The analytic synthesis process has been described as involving 'interpretations of interpretations of interpretations' (p. 35),[25] meaning that the reviewer interprets the study author's interpretations of the research participants' views and experiences. The originators[25] called their analytic synthesis approach 'translation' and 'synthesis of translations,' whereby translation is idiomatic, not literal. The process involves reviewers systematically comparing (translating) the meaning of concepts across primary studies to identify new overarching concepts and theories, while taking account of the impact of each study's context on its findings.[6,25]

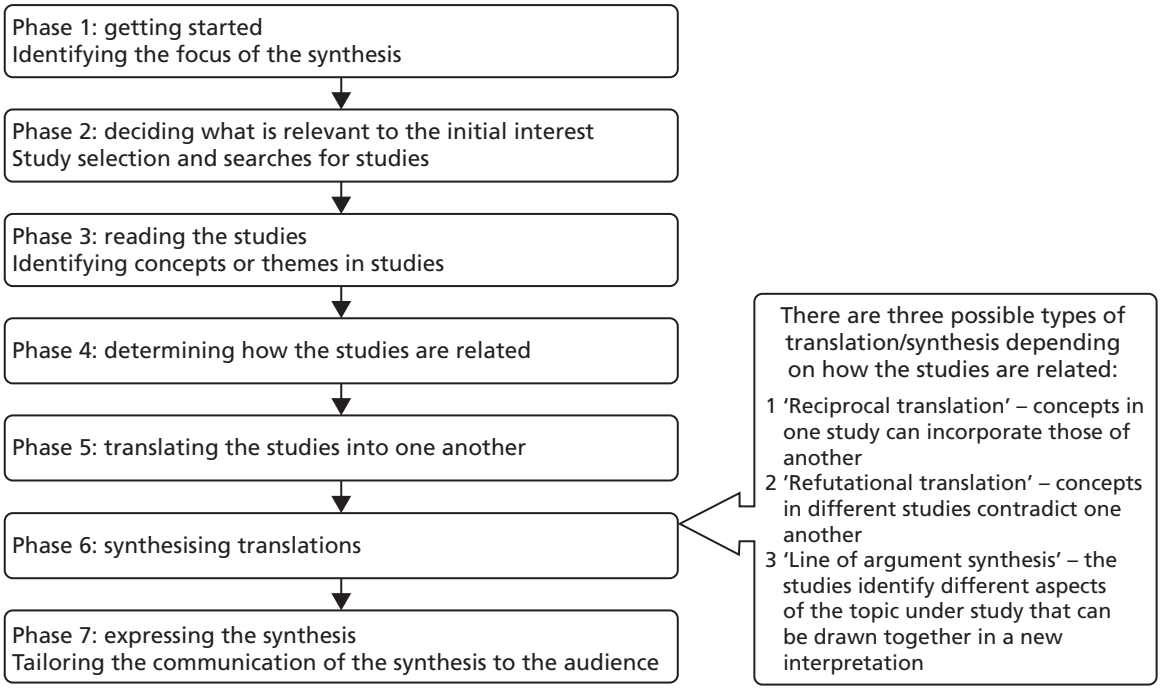


FIGURE 1 The seven phases of Noblit and Hare's[25] meta-ethnography approach.

Meta-ethnography is a complex and challenging approach with a lack of explicit guidance from the originators[25] on how to conduct the analytic synthesis process and how to appraise and sample studies for inclusion. More recent methodological work has documented more detailed methods for conducting the analytic synthesis,[6,26] and recognised methods for study appraisal[27] and sampling now exist.[28] The uncertainties and complexity of meta-ethnography have resulted in variation in their conduct and their subsequent reporting. This is described in more detail below.

The need for reporting guidance

Reporting quality of published meta-ethnographies varies and is often poor; the analytic synthesis process is particularly poorly described.[17,29] Consequently, meta-ethnography is not currently achieving its potential to inform evidence-based health care. Users of research evidence need clear reporting of the methods, analysis and findings to be able to have confidence in, assess and use the output of meta-ethnographies.

Reporting guidelines can improve reporting quality of health-care research.[30] Numerous such guidelines now exist, including CONSORT (Consolidated Standards of Reporting Trials) for randomised controlled trials,[31] PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses)[32] and SQUIRE (Standards for Quality Improvement Reporting Excellence)[33] for quality improvement studies. However, there is no tailored guideline for meta-ethnography reporting. A generic reporting guideline for qualitative evidence synthesis exists in the 2012 enhancing transparency in reporting the synthesis of qualitative research (ENTREQ) statement,[34] but ENTREQ's development did not include a consensus study with academic experts and it encompasses a wide range of synthesis approaches. It was not designed specifically for meta-ethnography with its unique, complex analytic synthesis processes and so is unlikely to greatly improve meta-ethnography reporting. The need for bespoke reporting guidelines has been recognised and these have been developed recently for other unique forms of qualitative evidence synthesis, namely realist syntheses[35] and meta-narrative reviews.[36] This report describes the development of bespoke meta-ethnography reporting guidance.

Developing reporting guidance

Good practice in developing reporting guidance involves a systematic, mixed-methods approach including several key steps: literature reviews, workshops involving methodological experts, consensus studies, and developing a guidance statement and an accompanying explanatory document.[37] This kind of approach has been used successfully to develop a range of reporting guidelines.[32,35,36] Rigour in developing a reporting guideline requires expert input and the use of expert consensus in agreeing its contents.[37] Seeking consensus from the wider community of experts can avoid producing a guideline biased towards the preferences of a small research team. In the case of meta-ethnography, such consensus is particularly important given that meta-ethnography and qualitative evidence synthesis methodology more broadly are still evolving and there remain areas of contention, for example whether or not, and how, to appraise studies for inclusion in a meta-ethnography.

The principal aim of a reporting guideline is to improve the completeness and clarity of research reporting, not to improve the quality of research conduct (although improved conduct may be a welcome by-effect of guideline use) and not as a means to assess the rigour of research conduct. Specific tools now exist for assessing confidence in the findings of qualitative evidence syntheses such as Confidence in the Evidence from Reviews of Qualitative research (CERQual);[14,38] clearer, more complete reporting of meta-ethnography methods, analysis and findings can facilitate assessments of confidence using such tools.

The meta-ethnography reporting guidance (eMERGe) project has developed meta-ethnography reporting guidance[39–42] in line with good practice,[37] comprising a list of recommended criteria and accompanying detailed explanatory notes. The guidance does not dictate a rigid set of reporting rules; rather, the explanatory notes justify and explain the criteria to emphasise the importance of adhering to them.

Chapter 2 Aims of the project

The eMERGe project aimed to create evidence-based meta-ethnography reporting guidance by answering the following research questions:

- What are the existing recommendations and guidance for conducting and reporting each process in a meta-ethnography, and why?
- What good practice principles can we identify in meta-ethnography conduct and reporting to inform recommendations and guidance?
- From these good practice principles, what standards can we develop in meta-ethnography conduct and reporting to inform recommendations and guidance?
- What is the consensus of experts and other stakeholders on key standards and domains for reporting meta-ethnography in an abstract and main report/publication?

The project comprised four key stages, conducted by the project team, in consultation with one of the originators of meta-ethnography, Professor George Noblit, and supported by a Project Advisory Group of national and international academics, policy experts and lay advisors who had an active role in the development of the guidance and whose contribution was central throughout the project. The process of guidance development across the four stages of the project is outlined in *Figure 2*.

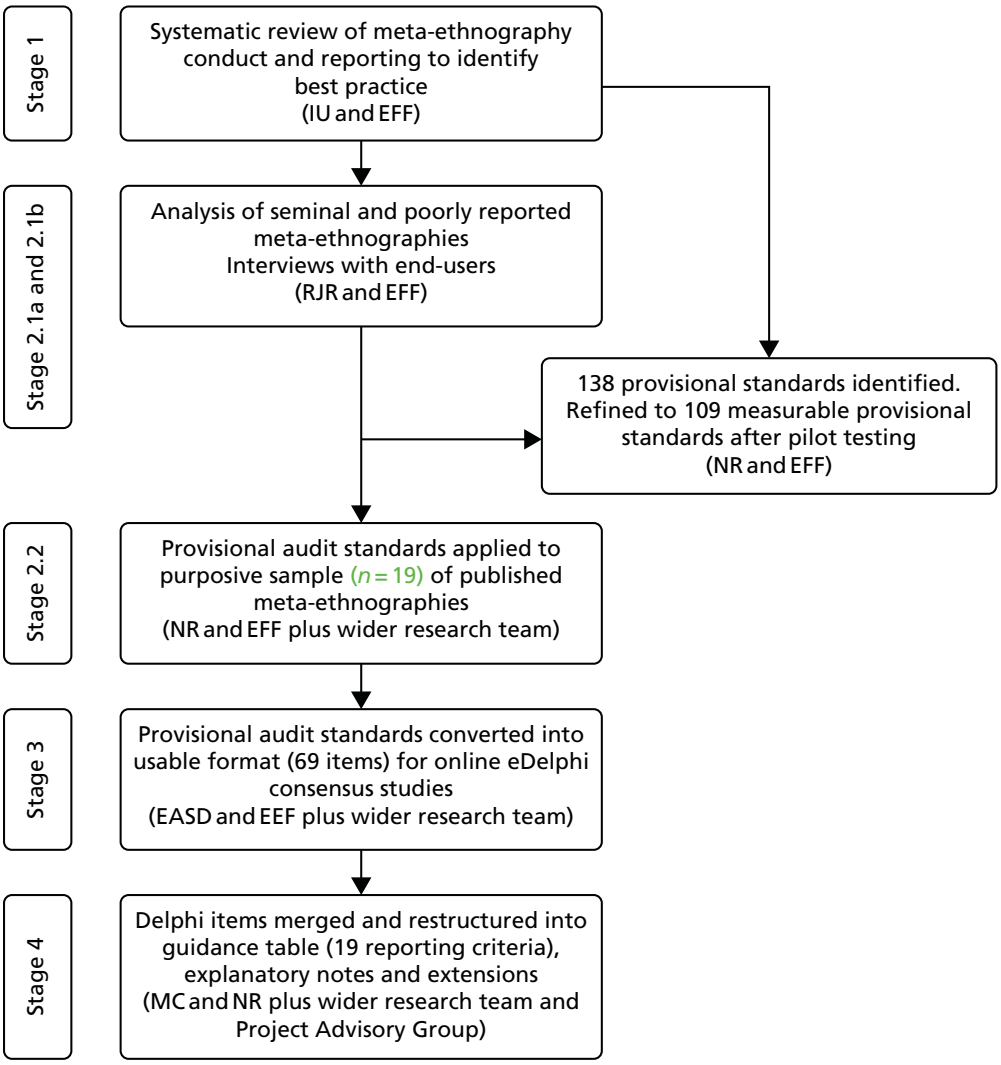


FIGURE 2 Guidance development flow chart.

Stage 1 of the project involved a systematic review of methodological guidance using comprehensive literature searches. The methods and results of the review are provided in *Chapter 3*. From this review, good practice principles and recommendations were identified.

Stage 2 of the project involved a review and audit of published meta-ethnographies. There were three parts to this stage of the project: (2.1a) a documentary analysis of a sample of published seminal and poorly reported meta-ethnographies; (2.1b) an exploration of professional end-user views on the utility of seminal and poorly reported meta-ethnographies for policy and practice; and (2.2) an audit of published health- or social care-related meta-ethnographies to identify the extent to which they met the good practice principles and recommendations identified in stages 1, 2.1a and 2.1b. This stage of the project is reported in *Chapter 4*. As a result of stage 2, we reviewed and refined 109 provisional standards to create 69 reporting items for the eDelphi studies.

Stage 3 of the project involved finding consensus on the reporting items through an online workshop and eDelphi (Version 1, Duncan E, Swinger K, University of Stirling, Stirling, UK) consensus studies. Stage 3 of the project is reported in *Chapter 5*. As a result of the eDelphi consensus studies, four items failed to reach consensus and were removed from the provisional standards.

Stage 4 of the project covered developing the guidance table, reporting criteria, explanatory notes and extensions to the guidance,[39–42] along with training materials to support the use of the guidance. This process was iterative and involved input from the project team and the wider Project Advisory Group. This process is described in *Chapter 6*.

Chapter 3 Stage 1: methodological review

Introduction

The purpose of stage 1 was to identify recommendations and guidance for conducting and reporting a meta-ethnography. Both conduct and reporting were included because it is necessary to understand what meta-ethnography is and how to conduct it, in order to know what should be reported and what constitutes good reporting.

The research question for this stage was: what are the existing recommendations and guidance for conducting and reporting each process in a meta-ethnography, and why?

Methods

A methodological systematic review of the literature, including 'grey' literature such as reports, doctoral theses and book chapters, was conducted to identify existing guidance and recommended practice in conducting and reporting meta-ethnography from any academic discipline. This review has been registered on PROSPERO (the International Prospective Register of Systematic Reviews) as registration number CRD42015024709. A key focus of the review was on the meta-ethnography analytic synthesis phases, which are complex and currently very poorly reported.

Search strategy

We first conducted comprehensive database searches that were followed by expansive searches to identify published and unpublished research in any language. These searches were iterative and evolved as the review progressed because their purpose was to build our knowledge of recommendations and guidance in conducting and reporting meta-ethnography rather than to answer a tightly defined research question.[43]

To identify relevant literature, we started with seminal methodological and technical publications known to our expert academic advisors and the project team including Noblit and Hare's book,[25] detailed worked examples of meta-ethnographies and publications relating to qualitative evidence synthesis more generally (e.g. reporting guidelines for qualitative evidence synthesis approaches and reviews of qualitative syntheses including meta-ethnographies). Relevant texts were included from other disciplines that use meta-ethnography, such as education and social work. We performed citation searching, reference list checking (also known as backward and forward 'chaining') of the seminal texts and searched key websites (e.g. The Cochrane Library). Comprehensive database searches were also conducted to identify other methodological publications.[43] Details of databases and other sources that were searched, as well as the search terms that were used, can be found in *Appendix 1* (*Tables 5* and *6*, respectively).

Comprehensive database searches to identify methodological publications

Searches were performed in 16 databases, in July and August 2015. The search strategy was designed in MEDLINE (Medical Literature Analysis and Retrieval System Online, or MEDLARS Online) and refined by testing against a set of key papers already known to the team. The search terms were developed and piloted in collaboration with a researcher highly experienced in the conduct of systematic reviews (RT). The terms related to meta-ethnography and qualitative synthesis, and to methodological guidance, were tailored to each bibliographic database. Reviewers also hand-searched reference lists in included texts (those meeting inclusion criteria for the review) for other relevant studies not already identified. A systematic approach was used to record and manage references, which were stored in the bibliographic software EndNote version X7.4 (Thomson Reuters, CA, USA). The list of included publications from database searches and expansive searches was shared with our academic expert advisors who suggested potential additional publications.

Screening and selection of texts to include

We originally intended to independently double-screen all references by title and abstract; however, we reviewed this decision because the highly sensitive search strategy resulted in a very large number of retrieved references from the comprehensive database searches. We reviewed our screening strategy after independent screening had started; we decided not to double-screen references from the database searches published prior to 2006 to enable us to meet our aims and project timelines. The references published pre 2006 that referred to qualitative evidence synthesis had generally been superseded and the majority of relevant references about meta-ethnography were already known to the project team and expert advisors. We were confident that any relevant publications published prior to 2006 would be identified through expansive searches and expert recommendations. However, as a precaution, titles and abstracts of references from 2005 and older ($n = 1204$) were electronically searched for key terms ('ethnograph', 'Noblit') to identify any that referred to meta-ethnography; references containing these terms were then screened by title and abstract by one reviewer (EFF).

Overall, titles and abstracts of 6271 references retrieved through database searches were independently double-screened and a further 1204 were screened by one reviewer. All additional references identified from other sources were double-screened. A total of seven reviewers (IU, EFF, Derek Jones, NR, JN, EASD and MM) were involved in screening retrieved publications, using the inclusion and exclusion criteria presented in *Table 1*.

Disagreements over inclusion/exclusion were resolved through discussion. A third reviewer also screened publications if the first two reviewers could not reach agreement. A final check of the full text of the articles was conducted for inclusion/exclusion before the data extraction was conducted.

Data extraction

Data were extracted in the qualitative analysis software NVivo 10.0 (QSR International, Warrington, UK), using a coders' guidance document, which was shared by all coders. The guidance was developed by Emma F France and piloted against five key methodological publications and then discussed with the team for refinement. Four reviewers performed the data extraction (IU, EFF, Karen Semple and Joanne Coyle), working from the same guidance. Data were extracted from each included publication by only one reviewer because this was a qualitative review in which the key principles are transparency and consensus,

TABLE 1 Stage 1 inclusion and exclusion criteria

Criteria	
Inclusion	**Exclusion**
1. Book, book chapter, journal article/editorial, report or PhD thesis	1. Theses below PhD level
2. Published after 1988	2. Published before 1988 (date of the publication of the original meta-ethnography text by Noblit and Hare[25])
3. Reports on methodological issues[a] in conducting meta-ethnography or 4. Is a reporting guideline for, or provides guidance on, reporting qualitative syntheses including meta-ethnography	3. Does not report on methodological issues[a] in conducting meta-ethnography AND is not a reporting guideline/providing guidance on reporting meta-ethnography
5. Any language	
6. Any discipline or topic (not just health related)	

a 'Methodological issues' included all aspects of the meta-ethnography approach including the philosophical and theoretical underpinnings, research design and the research practices and procedures including conveying findings and developing theory; and also included providing advice on initially choosing meta-ethnography as suitable for one's research aim, defining the characteristics of a meta-ethnography, comparing qualitative synthesis methodologies including meta-ethnography as one of those compared, and/or describing any other aspect of meta-ethnography methodology.

rather than independence and inter-rater reliability. However, the completeness of the data extraction was double-checked by a second reviewer for 13 of the publications to ensure accuracy. In order to maximise the resources and time available, data were extracted from the richest and seminal publications first, as assessed by Emma F France and Isabelle Uny, and then from the other publications until all were coded and analysed. NVivo 10.0 was used to facilitate management of, and data extraction from, the publications. Guidance and recommendations from the 57 methodological texts were coded into the 'nodes' or data extraction categories described below, which are primarily based on Noblit and Hare's[25] seven phases of meta-ethnography conduct, with some additional categories for the data (e.g. 'Definition or nature of meta-ethnography') that were not specifically about the seven received meta-ethnography phases. The reason for creating these nodes was their fitness to providing an answer for the research question. The nodes at which data were extracted were:

- definition or nature of meta-ethnography and how it differs from other qualitative evidence synthesis approaches
- selection of a qualitative evidence synthesis approach: how to select a suitable qualitative evidence synthesis approach for one's aim or research question (this new phase was labelled 'phase 0' and added by the eMERGe team).
- Phase 1: getting started – deciding the focus of the review (e.g. guidance or recommendation on choosing a topic).
- Phase 2: deciding what is relevant – which encompassed three subcategories –

    1. quality appraisal of studies – recommendations on ways to appraise the qualities of primary studies to be included.
    2. search strategies for meta-ethnography – recommendations on searching for primary texts or studies.
    3. selection of studies – guidance or recommendations on the manner in which studies to be synthesised were selected.

- Phase 3: reading studies – where advice or recommendation is given on how to read the studies and identify and record the concepts and metaphors contained in each study.
- Phase 4: determining how the studies are related – determining how the concepts and metaphors used in each study relate to others and how they can be synthesised. This phase was also divided into three subcategories –

    1. definition of reciprocal translation – when concepts in one study can incorporate those of another; the coding entailed defining this type of translation and identifying advice and recommendations on how this could be undertaken.
    2. definition of refutational translation – where concepts in different studies contradict one another; the coding entailed defining this type of translation and identifying advice and recommendations on how this could be undertaken.
    3. definition of line of argument (LOA) – when the studies identify different aspects of the topic under study that can be drawn together in a new interpretation; the coding entailed defining this type of translation and identifying advice and recommendations on how this could be undertaken.

- Phase 5: translating studies into one another – the way in which metaphors and/or concepts from each study and their inter-relatedness are compared and translated into each other.
- Phase 6: synthesising translations – how to synthesise the translations to make them into a whole that is greater than its parts.
- Phase 7: expressing the synthesis – how the synthesis is presented, the message conveyed and for which audience.

Some other categories were also included in data extraction, which are reported on in this document:

- issues of context in meta-ethnography
- number of reviewers required to undertake a meta-ethnography
- validity, credibility and transferability issues in meta-ethnography.

Data analysis

Publications were read repeatedly and compared using processes of constant comparison. Extracted data were analysed qualitatively mainly by two members of the team (IU and EFF). To support the analysis, memos were written for each category in which each reviewer could record their analysis of the data extracted at the particular node. As the analysis progressed, areas of agreement and uncertainties were noted in the memos and Isabelle Uny and Emma F France drew on each other's understanding of the data from each node. For complex nodes (e.g. regarding conduct of phases 4, 5 or 6), each reviewer individually identified the key themes and issues in a NVivo memo and then the two coders compared what they had written to check their different interpretations. Following this, one of the coders wrote a detailed analytic memo, to which the other subsequently added more details, or which they could question in light of what they had read. For less complex or less contentious nodes (e.g. regarding conduct of phases 1, 2 or 3), one reviewer conducted the analysis, also using memos that were then checked by the other reviewer for accuracy and transparency. Throughout, each reviewer maintained an analysis journal in NVivo and any analysis decisions made at project meetings or internal meetings were logged in a folder on our shared electronic drive (all meetings were also audio-recorded for easy reference). Once completed, the initial analysis was collated and shared with the wider team and then discussed and revised to add rigour to the process and gain further perspectives on wider interpretation and analysis of the data contained in each node.

The guidance and advice provided in the included publications around each node/category varied in richness and detail. Nonetheless, the full range of practice was documented, regardless of the richness of the text. However, each reviewer also noted whether or not they felt that the texts they extracted data from were 'rich in details' (i.e. whether or not they were a detailed account related to meta-ethnography with in-depth explanation and rationales that went beyond description). As the analysis drew to its final stage, we detailed definitions for each of the phases as understood and described in the included publication. We summarised and analysed advice and recommendations given on the conduct of each and every phase, and noted the pitfalls and criticisms in the conduct and reporting of meta-ethnography raised by each author. The findings that emerged from the analysis are, thus, presented below.

Findings

As per the PRISMA flow diagram (*Figure 3*), 9285 references were retrieved from the databases searches and 47 from expansive search techniques, resulting in a total of 7522 records after deduplication. A total of 7417 clearly irrelevant texts were excluded by screening title and abstract. A total of 105 papers were screened in full text. There were 48 papers excluded at full-text screening because either they were found to be clearly irrelevant once the full text was retrieved or they did not report on methodological issues of meta-ethnography, were not a reporting guideline or did not provide guidance on the reporting of meta-ethnography. This resulted in a final total of 57 included publications.

Those 57 publications were included for data extraction. Five were from the field of education, 46 from health and six from other disciplines. There were 19 worked examples and 30 were considered to be rich in detail. The authors of 28 publications were solely from the UK, nine solely from the USA/Canada, four solely from Scandinavia and 16 had international (multicountry) teams. The full list of the included publications and their characteristics is provided in *Appendix 2*.

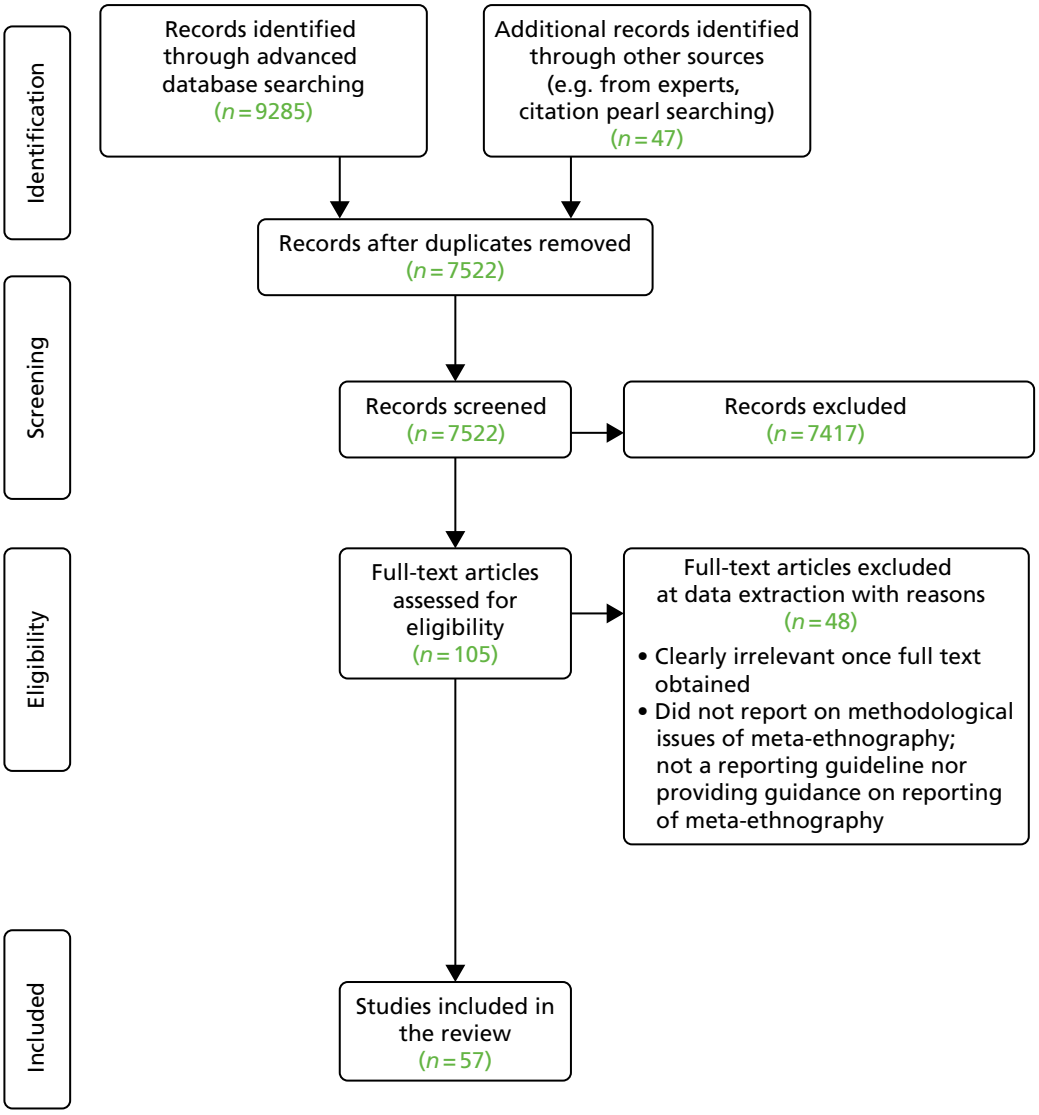


FIGURE 3 The PRISMA flow diagram for stage 1. Adapted from Moher *et al.*[32] This is an Open Access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

The following subsections will cover the findings from this review for every phase of a meta-ethnography, as described in *Chapter 1*. The analysis of the 57 publications showed that the aspects of meta-ethnography on which most methodological uncertainties remain are those regarding the nature and definition of meta-ethnography, the methods for selecting a qualitative evidence synthesis approach (a new initial phase labelled 'phase 0' by the eMERGe team) and those regarding phases 4–6 of the meta-ethnography conduct (because they are complex and usually the most poorly reported in meta-ethnographies). Therefore, more space has been devoted in this report to the findings related to those particular phases. During the analysis, it became clear that some of the methodological texts were more rich in details than others and, therefore, contributed more heavily to the analysis. A table is provided in *Appendix 3* that shows clearly the contribution of the major methodological publications to the categories and findings presented below. This is so that the reader is able to trace the contribution of each publication to the analysis of findings. Some of the publications are also directly referenced in the text of this report, where they made a particularly pertinent point or offered a particularly useful example. There were few publications relating to meta-ethnography reporting; most were about its conduct. On the whole, the review identified very little in the way of advice

or recommendations about meta-ethnography conduct and reporting based on empirical evidence, such as from methodological research, and, rather, more evidence based on the opinion or reasoned argument of the publication authors. In the findings presented below, we have, therefore, stated whether or not the uncertainties and issues raised with regard to meta-ethnography conduct and reporting were those of the authors of the methodological text analysed, or issued from the reflections and analysis of the eMERGe team.

Definition or nature of meta-ethnography and how it differs from other qualitative evidence synthesis approaches

The analysis of the methodological texts determined that meta-ethnography is an interpretive method of synthesis rather than simply an aggregative one. It was described by Noblit and Hare[25] as: 'the comparative textual analysis of published field [qualitative] studies', the aim of which is to create new interpretations.

A meta-ethnography analyses qualitative data in an inductive way to develop concepts, theories and models. Meta-ethnography attempts to preserve the contexts of the studies synthesised and uses a process of translation, which will be described at length in *Phase 5: translating studies into one another*.

Although it was conceived solely as a method of synthesis by Noblit and Hare,[25] other authors have, over time, also used meta-ethnography as a systematic literature review methodology.[6] Moreover, although meta-ethnography was designed to synthesise interpretive qualitative studies, one text[44] in this review argued that meta-ethnography could be used to synthesise qualitative and quantitative studies together; however, in order to do so, those authors drew on meta-ethnography to develop a new approach called 'critical interpretive synthesis'.

There was some discussion within the methodological texts regarding what constitutes the 'unique' characteristics of meta-ethnography as a qualitative evidence synthesis method. According to Noblit and Hare,[25] the processes that they presented in seven phases were not necessarily unique to meta-ethnography. However, they argued that the underpinning use of Turner's theory of social explanation[45] embedded in the process of translation differentiated meta-ethnography from other qualitative evidence synthesis methods. After a meeting with the eMERGe team in June 2016, Professor George Noblit provided further reflections on the process of translation as follows:

> *In Noblit and Hare's text, synthesis is seen as a form of translation of accounts into one another. The nature of such translation is based on S. Turner's Sociological Explanation as Translation (Cambridge: Cambridge University Press, 1980) in which he examines comparative explanations—the essential form of meta-ethnography. Turner notes that practices, and the concepts used to describe such practices, may vary from those in another society. In doing comparisons, then one may use the concept from one society, or create a new concept, in making the comparisons of the societies. In this, explanation is a form of translation and that 'an adequate translation would yield us claims that had the same implications in both languages' (p. 53). Accounts can be substituted for language in this quote, for the purposes of meta-ethnography. Synthesis as translation starts with a puzzle that is of the form where one study says x, what is another study saying? Addressing this puzzle requires formulating an analogy between the studies. As we add studies, we may find that the translation/analogy offered with the initial studies does not hold up.*
>
> *Professor George W. Noblit, University of North Carolina at Chapel Hill, 2016, personal communication*

The analysis of the methodological texts in this review indeed showed that what is seen to distinguish meta-ethnography from other qualitative evidence synthesis methodologies is the translation process.

One of the other key characteristics of meta-ethnography, as seen by some authors, is that it aims to arrive at new interpretations greater than those of individual studies.[6,25]

The main uncertainties surrounding the nature of meta-ethnography are around whether or not it could be used to synthesise both qualitative and quantitative studies, and whether or not purely descriptive studies (of which there tend to be many in health research) or deductive studies should be excluded from the synthesis.

'Phase 0': selecting a qualitative evidence synthesis approach

This review identified a new stage before 'phase 1: getting started', which was labelled 'phase 0: selecting a qualitative evidence synthesis approach'. It relates to the rationale for choosing meta-ethnography as the qualitative evidence synthesis approach for the topic in question. This review demonstrated that better guidance is needed here to avoid reviewers choosing the wrong method of qualitative evidence synthesis or having to amend a method to suit their needs when a more suitable one might already exist.

Through stages 1 and 2 of this project, it became clear to the eMERGe team that authors of meta-ethnographies often cite Noblit and Hare[25] and state that their method is meta-ethnography when, in fact, they are not conducting a meta-ethnography. A number of strategies to avoid this were identified in the review of methodological texts, including:

- investigating other qualitative evidence synthesis approaches before choosing meta-ethnography (e.g. ensuring that an interpretive qualitative evidence synthesis is required and that the type and quantity of studies to be synthesised fit with the method selected)
- ensuring that the synthesis research question and aim drive the choice of qualitative evidence synthesis approach (e.g. whether it aims to generate a model or theories of behaviour or experiences, or aims at conceptual and theoretical development)
- making sure that the qualitative evidence synthesis chosen fits with the epistemological stance of the team of reviewers/the reviewer, their skills and experience of the methods used (meta-ethnography may not be best suited to novices in qualitative research)
- ensuring that the time and resources available fit with the conduct of a meta-ethnography.

Ultimately, the review revealed that meta-ethnography needs a high level of qualitative expertise. It is a time-consuming enterprise and this must also be taken into account in phase 0. Clear guidance is required on the conduct of meta-ethnography (particularly phases 5 and 6) to help researchers choose the most suitable qualitative evidence synthesis approach.

Phase 1: getting started

Noblit and Hare[25] describe this phase as:

> *identifying an intellectual interest that qualitative research might inform . . . In this phase, the investigator is asking, How can I inform my intellectual interest by examining some set of studies?*
>
> *pp. 26–7*[25]

Ideally, a meta-ethnography aims to address a gap in knowledge, for instance by asking whether or not a qualitative evidence synthesis has previously been conducted on a particular topic or by asking whether or not it can offer new explanations of the topic. The methodological review found that authors recommended that an aim and research objectives be defined, at least in broad terms, at the start of undertaking the meta-ethnography, even if they are refined later in the process. An example of how this may be reported can be found in a worked example by Britten *et al.*[46] about lay experiences of diabetes mellitus and diabetes mellitus care.

Although the issues identified regarding phase 1 were not contentious, there were some uncertainties around the best way to define, or refine, the research question in a meta-ethnography as there is a link between the research question and the selection of studies to be included in the thesis (e.g. the final research question will determine which studies are included).[28,47]

Phase 2: deciding what is relevant

With regard to the meta-ethnographic conduct, it bears remembering that Noblit and Hare's[25] book was published at a time when online bibliographic databases were unavailable. They created meta-ethnography as a method of synthesis but did not provide detailed guidance on selecting studies for inclusion in the synthesis. Subsequently, other researchers have applied systematic search and selection procedures to the identification and selection of studies for inclusion in a meta-ethnography.

The analysis of the methodological texts confirmed the view that published meta-ethnographies mostly use comprehensive systematic review style searches traditionally used for quantitative reviews of intervention effectiveness. However, some authors in this review stressed that this was not the only method available for meta-ethnography. For instance, some suggested that exhaustive searching may be suitable for making generalisable claims or to provide a comprehensive picture of research on a topic, whereas non-linear or purposeful searching might be more appropriate in other cases, such as meta-ethnography, where the intention is to generate a theory. Whatever the case may be, authors stressed that the search strategy ought to match the intended purpose of the meta-ethnography. One of the difficulties raised by authors, however, is that qualitative research reports are sometimes challenging to identify through electronic database searches. They therefore urged reviewers to supplement database searches with alternative methods, such as searching grey literature.

Quality appraisal and sampling for meta-ethnography

Noblit and Hare[25] did not advocate a formal appraisal of studies prior to synthesis, rather, they argued that each study's quality would become apparent by how much it eventually contributed to the synthesis. However, recent reviews of meta-ethnographies, including that carried out in the stage 2 audit of this project, indicate that most meta-ethnography reviewers conduct some form of quality appraisal of studies.[17,29]

There is a wide variety of quality appraisal approaches that can be used, some judging conceptual richness (which is more rarely done) and some judging the methodological quality of primary studies (which is most commonly done). This review found that a number of meta-ethnographies use the Critical Appraisal Skills Programme,[48] or adapted forms of it, to assess the quality of the primary studies. Malpass *et al.*[49] offer an exemplar of how the quality appraisal of the studies can be used in their synthesis of patients' experiences of antidepressants.

This review of methodological texts showed that there is debate over whether or not formal quality appraisal is necessary or even useful in meta-ethnography. There were uncertainties around whether or not papers appraised as being of lower methodological quality should be included in the synthesis (as the findings may still be credible) and how difficult it may be to assess the quality of papers from radically different contexts. A number of authors suggested that a possible benefit of quality appraisal is the close reading of papers that it encourages, which is useful for meta-ethnography.

In terms of sampling, the review of methodological texts shows that what is seen as the optimum number of studies to synthesise in a meta-ethnography is also controversial. For instance, some argue that too many studies ($n > 40$) could make the translation process difficult and result in a more superficial synthesis, whereas others argue that too few studies might result in an underdeveloped conceptualisation. However, the real issue may be the number of data to be synthesised relative to the capacity of the review team rather than the number of studies per se. Some authors in this review found that there is a relationship between the research question and sampling (e.g. a narrow question can lead to a smaller sample, and starting with a wider sample and applying quality appraisal may help refine the question). The review showed that there are perceived benefits and problems with applying purposive and theoretical sampling to meta-ethnography, and that theoretical sampling in meta-ethnography has rarely been tested empirically.

Phase 3: reading the studies

The review identified various reading strategies for phase 3, such as reading while recording themes and identifying concepts (including refutational ones) and their context within the framework of the research question. Some read the papers or accounts chronologically and some started with the most conceptually rich, although there was no evidence to indicate how reading papers in different orders may affect the synthesis output. Authors of methodological texts often used tables (or mind maps) to display concepts, sometimes distinguishing concepts of the research participants from those of the primary study authors (referred to by some authors as first- and second-order concepts, respectively). Some also used phase 3 to appraise the quality of the studies. Some authors further specified the importance of reading being carried out by two or more reviewers. This review concludes, however, that one of the key uncertainties in this phase was around how to preserve the meaning of, and relationships between, concepts within and across studies when reading.

Phase 4: determining how the studies relate

Noblit and Hare[25] expressed that the studies may relate in three main ways:

1. reciprocally (because they are about similar things)
2. refutationally (because they are about different things)
3. as a LOA (because they offer part of a higher meaning).

Some methodological texts in this review ventured that a well-conducted phase 3 will help to determine how studies relate to one another; however, most authors show how they related the studies in a grid or table (some detailed descriptions of how this has been reported can be found[49–51]). Some texts analysed in this review suggested that 'relating studies' is best done collaboratively by a team who interpret the concepts separately first and then come to a decision together.

We concluded that the main uncertainties about the conduct of phase 4 are:

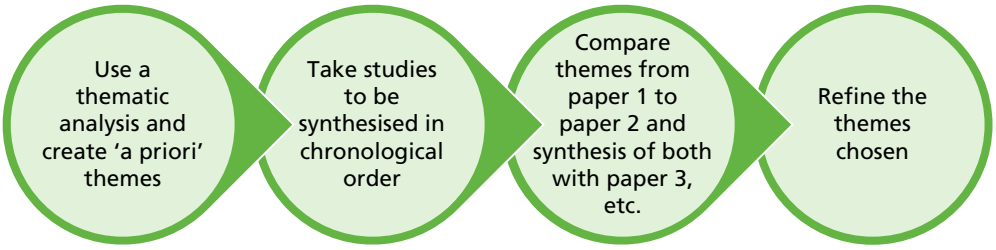
- whether or not it is possible to relate studies that are profoundly epistemologically different, and what is the best way to preserve the semantics and context of the metaphors or concepts contained in each study through the 'relating' process
- how the order in which studies are appraised and synthesised may affect the outcome of the synthesis (e.g. use of index paper)
- whether or not reciprocal findings in studies may tend to be given more weight than refutational ones.

Phase 5: translating studies into one another

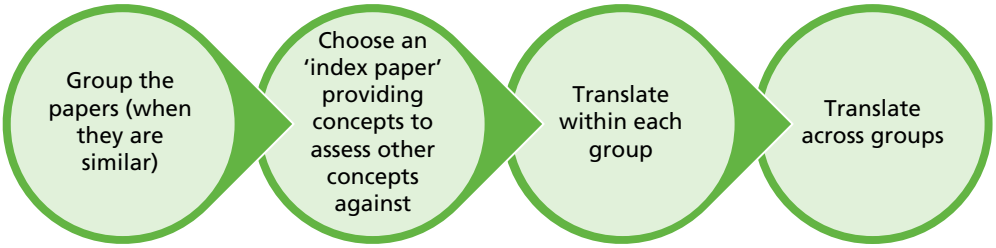
As expressed earlier, the process of translation is key to meta-ethnography conduct. It was defined by Noblit and Hare[25] as idiomatic rather than literal. From this methodological review, we can conclude that the process of translation is not a linear process but an iterative one, which aims to translate concepts from one study into another study and, thus, arrive at concepts or metaphors that embody more than one study.[52]

This review found that there is no single way of conducting the translation in a meta-ethnography and the various methods have not been formally compared in methodological research. However, it is the eMERGe team's contention that whichever method of translation is used should be made explicit and transparent by the authors. The diagrams in *Figure 4* were designed by the eMERGe team to represent three well-defined methods of translation described by some of the authors of the methodological texts included in this review.

Method 1: this method is advocated by authors such as Atkins *et al.*[53] and Erasmus[50]



Method 2: this method is advocated by authors such as Campbell *et al.*[6] and Garside[54]



Method 3: this method is advocated by authors such as Doyle[55] and Toye *et al.*,[26] it is perceived to be suitable particularly for the synthesis of a large number of studies

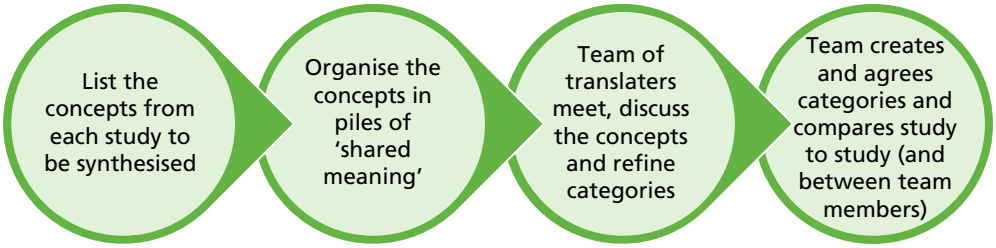


FIGURE 4 Three possible methods for the conduct of phase 5 as interpreted by the eMERGe project.

Reciprocal translation

Reciprocal translation, according to Noblit and Hare[25] and to a number of other authors reviewed in this study, takes place when studies are roughly about the same thing and their meaning can be interpreted into one another. The conduct of reciprocal translation was described in detail by Campbell *et al.*,[24,52] and their approach has been used by other authors in this review. We have summarised the approach of Campbell *et al.*[24,52] in *Figure 5*.

A number of authors in the review recommended using tables or grids to represent the reciprocal translation analysis (a particularly detailed example of this can be seen in Malpass *et al.*[49]).

This review found that one of the issues regarding the conduct of reciprocal translation is that it can be done in such a way as to result in a simple recoding or recategorising of themes from the primary studies rather than being interpretive. A meta-ethnography should strive to lead to new interpretations and theories of the topic under study.

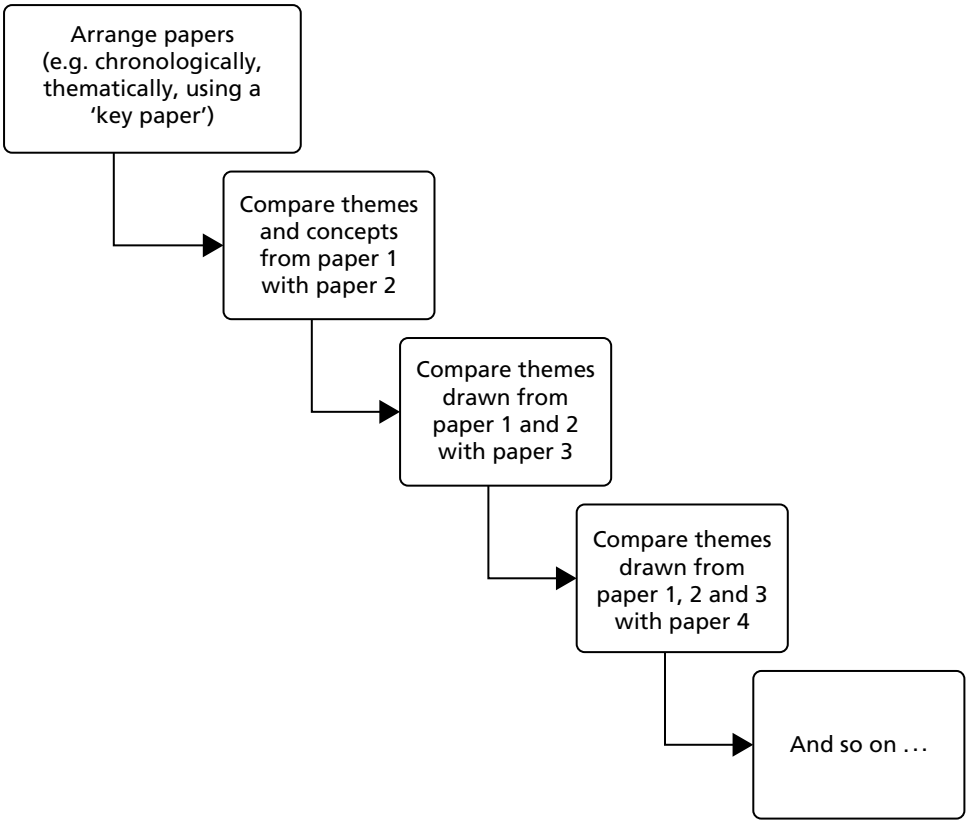


FIGURE 5 Reciprocal translation process as interpreted by the eMERGe project.

Refutational translation

Noblit and Hare describe refutation as 'an interpretation designed to defeat another interpretation' (p. 48).[25] According to authors whose accounts are contained in this review, the purpose of a refutational translation is to explain differences and exceptions in the studies. Meta-ethnography is one of the few qualitative evidence synthesis methods that requires the researcher 'to give explicit attention to identification of incongruities and inconsistencies' (p. 128).[56] Some authors state that refutational translation can take place at the level of the overall studies, accounts or reports, whereas others state that it occurs at the level of themes, concepts or even findings across study accounts. It is our understanding from the review literature that it is likely that both types of refutation exist and are possible.

However, in the review, it was clear that there are uncertainties as regards how to conduct refutational translation and the review questions whether or not undertaking refutational translation makes it more difficult to develop an overarching LOA synthesis (LOA synthesis is described in *Phase 6: synthesising translations*, *Line of argument synthesis*).

Phase 6: synthesising translations

Noblit and Hare[25] define this phase as follows:

> *Synthesis refers to making a whole into something more than the parts alone imply. The translations as a set are one level of meta-ethnographic synthesis. However, when the number of studies is large and the resultant translations numerous, the various translations can be compared with one another to determine if there are types of translations or if some metaphors and/or concepts are able to encompass those of other accounts. In these cases, a second level of synthesis is possible, analyzing types of competing interpretations and translating them into each other.*
>
> *p. 29*[25]

The manner in which the translation is synthesised depends mainly on the way phase 5 was conducted. Some authors express that, to a certain extent, translation and synthesis happen together, in an iterative manner. There is also no single way in which to carry out the synthesis. Some of the methods used by authors of worked examples of meta-ethnographies are described in two diagrams in *Figure 6*.

The review indicates that there is potential to develop a theory from the synthesis in phase 6, but that very few authors describe whether or not, or how, they did this. One notable exception is Britten and Pope,[51] whose worked example produced middle-range theories in the form of hypotheses that could be tested by other researchers. Part of the issue is that theory is understood differently by different authors.

Line of argument synthesis

Another type of synthesis is LOA synthesis. Noblit and Hare[25] define LOA as being about inference:

> *What can we say of the whole (organization, culture, etc.), based on selective studies of the parts?*
> *p. 63*[25]

Other authors also conceive of it as a process that produces new interpretations based on the analysis and translation of the primary studies. Several authors state that you can further develop translations into a LOA synthesis, which was how Noblit and Hare[25] described it. LOA is described as a synthesis that links translations and the reviewer's interpretation. Some clear and detailed examples of how LOA synthesis has been conducted can be found in Britten and Pope.[51]

It is this project team's understanding that a LOA synthesis is distinct from the translation process and follows on from it. However, depending on the nature of the data, it may or may not be possible to achieve a LOA synthesis in a meta-ethnography. One of the main uncertainties around LOA synthesis is whether or not it may constitute a model in itself or whether or not developing a model is a further analytic step.

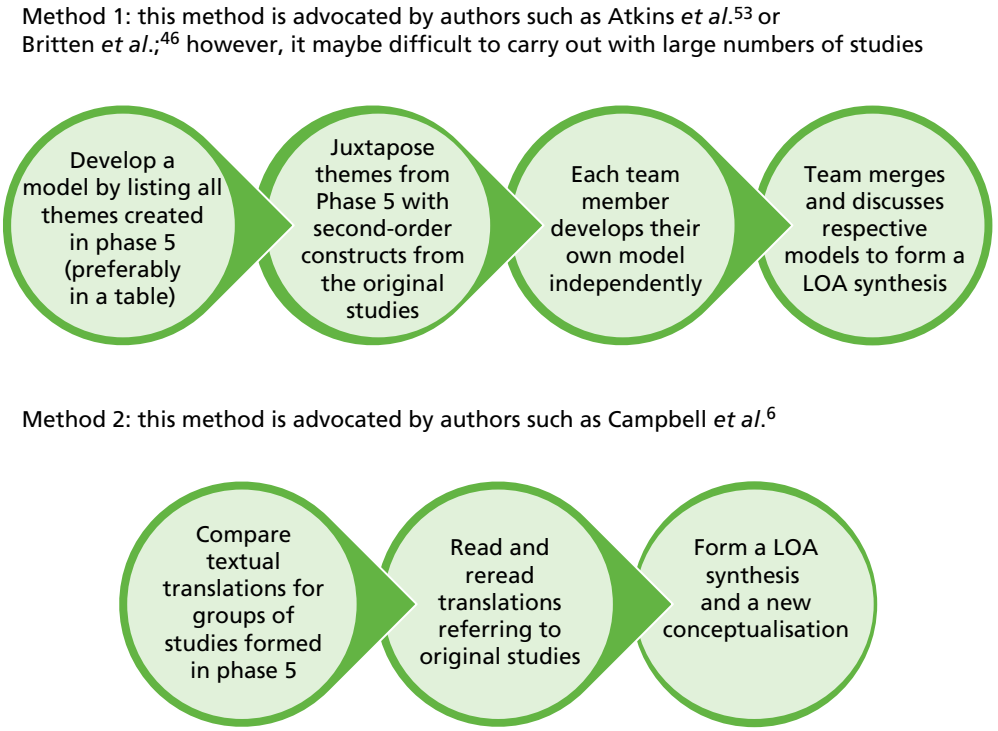


FIGURE 6 Two possible methods for the conduct of phase 6 as interpreted by the eMERGe project.

The uncertainties with regard to phase 6, as revealed in this review, are:

- How strong or valid is the evidence produced by a meta-ethnography (e.g. when the interpretation in the synthesis is three times removed interpretation from the lived experience of the participants in the original studies)?
- How does the process of translation and synthesis work in a team?
- How transparent is the creative and interpretive synthesis process?

Phase 7: expressing synthesis

Noblit and Hare[25] expressed in their book that the meta-ethnography synthesis output must be intelligible to the audience at whom it is aimed. Because of this, it could take the form of a written statement, but also could be conveyed by video or other art forms, although this has been rare. However, Noblit and Hare state:

> *The intention here is not to pander to the audience. Having our syntheses readily intelligible does not mean reducing the lessons of ethnographic research to an everyday or naive understanding of a culture. The focus on translations is for the purpose of enabling an audience to stretch and see the phenomena in terms of others' interpretations and perspectives.*
>
> *p. 29*[25]

Authors in this review noted that the expression of the synthesis has to suit the audience and be clear so that policy makers and intervention planners can make use of it. However, some warned about the difficulties in remaining independent in the expression of the synthesis; Booth[57] for instance expressed concerns that pressures from funders to publish new findings may influence the final product.

Issues of context in meta-ethnography

The context in a meta-ethnography concerns not only the characteristics of primary studies (e.g. the socioeconomic status of participants, their location, study setting, research designs, methodological details, and political and historical contexts), but also the context of the reviewers themselves (funding, political climate, respective expertise and world views).

The review found that authors deemed context to be important to meta-ethnography. Indeed, from their initial work on meta-ethnography, which was designed specifically to preserve the contextual aspects of studies to be synthesised, Noblit and Hare[25] contended that other aggregative qualitative evidence syntheses, by contrast, were:

> *context-stripping [and] impeded explanation and thus negated a true interpretive synthesis.*
>
> *p. 23*[25]

For the authors in this review, taking into account the context of the studies to be synthesised was seen to bring credibility to a meta-ethnography. Authors in this review recommended laying out the context from each primary study in a grid or table for readers to see. Unfortunately, context is often a problem for meta-ethnography as it tends to be poorly reported in primary studies in health-care research. The uncertainty with regard to the issue of context is how to synthesise large numbers of studies with different contexts.

Number of reviewers required to undertake a meta-ethnography

The review showed that authors believed that there are benefits in a meta-ethnography, as with qualitative research in general, being undertaken by more than one reviewer. The reasons given were that it:

- aids the translation process
- leads to richer and more nuanced interpretations, as reviewers have alternative viewpoints and perspectives
- encourages explorations of dissonance
- brings more rigour to the process and increases the credibility of the research process.

Although an optimum number of reviewers for a meta-ethnography cannot be stated here as it has not been the subject of empirical research comparisons, the review certainly expressed that there were weaknesses in undertaking a meta-ethnography with only one reviewer, for example a lack of exploration of alternative interpretations. A review of meta-ethnographies published between 2012 and 2013[29] showed that the actual number of reviewers in recently published meta-ethnographies varied from one to seven, with the most common number being two or three. The composition and experience of the team of reviewers were seen as important. Findings suggest that the team must fit the aim of the synthesis and represent a range of perspectives, genders and skills (e.g. translators, data retrievers, user representatives and reviewers from different disciplines). Some authors suggested that qualitative evidence synthesis expertise is needed in the team to undertake a meta-ethnography. Other authors addressed the issue of power dynamics within the team of reviewers (e.g. different levels of seniority).

Validity, credibility and transferability issues in meta-ethnography

Within this review, the debate around validity or credibility and around generalisability or transferability in meta-ethnographies revolved around how useful or credible the findings from this type of synthesis are, as well as on whether or not they can be generalised or transferred to other settings.

Validity and credibility

Depending on the publication, the authors talked about either the validity or credibility, or sometimes the trustworthiness, of the findings; credibility and trustworthiness, rather than validity, are the terms usually used for qualitative research. Bondas and Hall[58] offered some clear and concrete advice for ensuring validity in meta-ethnography:

> *questions such as Does the report clarify and resolve rather than observe inconsistencies or tensions between material synthesized? Does a progressive problem shift result? Is the synthesis consistent, parsimonious, elegant, fruitful, and useful (Noblit & Hare, 1988)? Is the purpose of the meta-analysis explicit?*
>
> *Bondas and Hall*[58]

For other authors, the search for disconfirming cases or studies (and the use of refutation) can enhance validity, as could the use of a multidisciplinary team, as it can improve rigour and quality. For some authors, the trustworthiness of the output of a meta-ethnography is related to how rigorously phase 2 has been conducted, that is, how data were collected (e.g. having a large number of heterogeneous studies or too few studies that were rich in details could compromise trustworthiness).

Although a few authors suggested returning to the authors of primary studies to check the validity of the metaphors used and the interpretations formed, this was seen by most as impractical and tricky. Furthermore, as Noblit and Hare[25] stated, the interpretation formed by the meta-ethnography synthesis could be construed as simply one possible interpretation, not as 'truth'. Campbell *et al.*[24] offered another view on validity by suggesting that 'One possibility would be to test the relevance of the synthesis findings by presenting them to pertinent patient groups, health professions, academics and policy makers'.

Garside[54] suggested that trustworthiness may be easier to establish in a qualitative evidence synthesis because the study reports are in the public domain, unlike the raw data of most qualitative primary studies, and so can be accessed by readers. To increase credibility, most authors suggested that the choice of meta-ethnography must be justified, the conduct of the synthesis clearly laid out and the place of the reviewer reflexively assessed.

Generalisability and transferability

Here, generalisability is understood to mean the degree to which findings from a particular meta-ethnography can be generalised to another sample of studies or another context. This term is most often used in more positivist-type research, and some authors in this review were doubtful of its usefulness to qualitative evidence synthesis. However, some of the authors believed that 'generalisation across studies adds to the findings of

individual studies'.[24] This was with the caveat that the heterogeneity of studies and their potential competing interpretations should still be taken into account within the synthesis. An alternative term more often used for qualitative research is 'transferability', meaning the ability to transfer findings to other settings and contexts.

Criticisms of meta-ethnography

Some of the main criticisms of meta-ethnography identified in the review of methodological papers included (1) the fact that, although there was some good practice in the conduct of meta-ethnography, a lot of those reviews that are labelled as such are actually critical literature reviews rather than interpretive meta-ethnographies; (2) the large number of studies selected for inclusion in some meta-ethnographies; and (3) the fact that some reviewers of meta-ethnography have used aggregative approaches in the attempt to conduct meta-ethnographies, and, in others, it is unclear what process was used to arrive at the final synthesis. Another criticism included that meta-ethnography reviewers sometimes failed to make clear how they selected their studies, whereas others offer incomplete analyses, in which first-, second- and third-order constructs are not always distinguished. Another main critique was that few meta-ethnographies actually conduct any refutational translations and few offer proper LOA syntheses, instead conducting only reciprocal translations.

Conclusions

Overall, this review of methodological texts on the conduct and reporting of meta-ethnography revealed that more clarity is required on how to conduct its various phases, particularly phases 4–6. A phase, called 'phase 0', was added by the eMERGe team to offer some guidance with regard to ascertaining the suitability of selecting meta-ethnography over other qualitative evidence syntheses.

This methodological review made clear that there were a number of challenges in conducting and reporting meta-ethnography as well as a number of uncertainties about how to operationalise the various phases. Overall, this has led to a blurring of the approach, whereby authors have modified the phases with little explanation, or simply bypassed some phases altogether. Thus, the review of the methodological texts on meta-ethnography sheds light on the current challenges related to the approach but also highlights the importance of developing clear guidance for the reporting of meta-ethnography.

Chapter 4 Stage 2: defining good practice principles and standards

Introduction

Stage 1 findings showed that the aspects of meta-ethnography that had most methodological uncertainties were the complex, analytic synthesis and expressing the synthesis phases (phases 4–7). Therefore, we focused our data collection and analysis in this second stage on these four phases rather than all seven. This enabled us to achieve a depth of understanding within the project's time constraints.

Aim

To identify and develop good practice principles and standards in the reporting of meta-ethnographies on which to inform the draft reporting standards for consideration by the expert and stakeholder Delphi groups in stage 3.

Research questions

- What good practice principles in meta-ethnography reporting can we identify to inform the draft reporting standards for consideration by the expert and stakeholder Delphi groups in stage 3?
- From these good practice principles, what standards in meta-ethnography conduct and reporting can we develop to inform recommendations and guidance?

To address these questions, stage 2 consisted of two sequential stages:

1. stage 2.1 – documentary and interview analysis of seminal and poorly reported meta-ethnographies
2. stage 2.2 – audit of recent peer-reviewed, health- or social care-related meta-ethnographies to identify if, and how, they meet the standards and to further inform and develop the guidance and reporting criteria.

Stage 2.1: documentary and interview analysis of seminal and poorly reported meta-ethnographies

Stage 2.1 was undertaken in two stages:

1. stage 2.1a – documentary analysis of seminal and poorly reported meta-ethnographies
2. stage 2.1b – exploration of professional end-user views on the utility of seminal and poorly reported meta-ethnographies for policy and practice.

Stage 2.1a: analysis of seminal and poorly reported meta-ethnographies

Methods

We aimed to analyse and review 10–15 poorly reported and 10–15 seminal meta-ethnographies. We asked expert academics from the Project Advisory Group to recommend meta-ethnography journal articles that they judged to be seminal and those that they considered to be relatively poorly reported and to explain why.[43] In addition, published reviews of meta-ethnography quality were searched by the project team (RJR and EFF) to identify low-quality examples.

Journal articles were considered for inclusion if they were:

- a peer-reviewed meta-ethnography journal article
- published following Noblit and Hare's 1988 book[25]
- considered by our expert advisors and/or published reviews of meta-ethnographies to be either
    - seminal (i.e. to have influenced or significantly advanced thinking and/or to be of central importance in the field of meta-ethnography), or
    - relatively poorly reported.

Thirteen seminal and three poorly reported meta-ethnographies were suggested by experts. Because few poorly reported meta-ethnographies were identified, we searched three published reviews of qualitative syntheses.[17,18,29] This identified a further 13 papers as relatively poorly reported meta-ethnographies. In total, 29 meta-ethnographies were analysed: 13 considered to be seminal and 16 regarded as relatively poorly reported (see *Appendix 4*).

Data extraction and coding

The following data were recorded in NVivo 10.0: author(s), title, journal details (including article word limit and publication year), topic focus and aim of review, and the number of primary studies synthesised.

Data were coded deductively by Emma F France, Isabelle Uny and Rachel J Roberts using the coding frame of analytic categories based on the recommendations identified in stage 1. The qualitative analysis software NVivo 10.0 was used to facilitate management and coding.

Data analysis

Data extracts were read repeatedly by Rachel J Roberts. Data were compared with the recommendations identified in stage 1 and with one another in order to identify similarities and differences within, and between, the seminal and poorly reported meta-ethnographies. Emergent findings were presented and discussed regularly within the project team to ensure rigour and richness of interpretation and analysis.

Findings

The following similarities and differences between poorly reported and seminal meta-ethnographies were identified.

Phase 4: determining how the studies are related

Both seminal and poorly reported meta-ethnographies reported extracting themes and/or concepts from primary studies and comparing them with one another to understand the relationships between them. The most striking contrast between the poorly reported and seminal meta-ethnographies was the extent of methodological detail provided. We coded $\geq$ 35 lines of text under this heading in all but one of the seminal papers, with one using well over 100 lines of text. Seminal meta-ethnographies more fully described the processes used by the review team in determining how the primary studies were related and provided illustrative examples from the synthesis being reported. This more detailed reporting enabled discussion of some of the difficulties, challenges and findings encountered during these processes, as well as wider methodological or theoretical issues. In contrast, we coded between five and seven lines of text at phase 4 in all but one of the poorly reported papers.

Analysis of the seminal meta-ethnographies illustrated that these authors adopted a variety of approaches and techniques to identify the ways in which the primary studies were related. The commonality that the seminal meta-ethnographies have is their comprehension and clarity in the description and illustration of the processes used, rather than the homogeneity of the processes.

Phase 5: translating studies into one another

Reviewing the phase 5 data extracted from the seminal and poorly reported meta-ethnographies revealed similar findings to phase 4. Again, there was considerably more text coded for the seminal meta-ethnographies than for the poorly reported ones.

The poorly reported meta-ethnographies provided a very brief summary describing translation that rarely extended beyond one paragraph. This was sometimes accompanied by a table illustrating the grouping of themes or concepts identified in the primary studies. In contrast, the seminal articles provided far more detailed descriptions of the processes the review team followed when translating primary studies. Analysis of these texts supports the stage 1 finding that there are a variety of techniques and processes that can be adopted when translating studies into each other (e.g. Campbell *et al.*,[6] Toye *et al.*,[27] Britten and Pope[51] and Garside *et al.*[59]). What differentiates the seminal from the poorly reported meta-ethnographies is the far greater clarity and depth provided in reporting these techniques and processes.

Phase 6: synthesising translations

The aim of synthesising translations in meta-ethnography is to produce new concepts, a theory or insights that extend beyond that found within the primary studies. Some authors of poorly reported meta-ethnographies provided detail on how new interpretations/concepts were developed from the translated themes. This was provided in a narrative form, often accompanied by a table and/or figure, which summarised the relationship between the themes and the higher-level concept(s) that encapsulate them. Other authors either provided a summary outline of the steps suggested by Noblit and Hare[25] or gave slightly more detail of how synthesising translations was carried out within the particular meta-ethnography they were reporting.

In contrast, the seminal meta-ethnographies tended to provide more detail on the processes used by the review team in synthesising translations. In describing these processes, clear linkages were made between primary study concepts, translated concepts and synthesised translations, to illustrate how the new interpretations/new concepts were developed. However, although most of the seminal papers reported extensive detailed information about the process of synthesis, some provided only brief outlines similar to those found within the poorly reported meta-ethnographies.

Phase 7: expressing the synthesis

Data coded on phase 7 tended to be in the findings and conclusions sections of papers. In contrast with findings from phases 4–6, we coded more text (typically three to five pages) from the lower-quality meta-ethnographies at this phase than was coded from the seminal meta-ethnographies (typically one or two paragraphs). This is because the lower-quality meta-ethnographies included a lot of detail (either in tables or narrative) of the different themes they had identified (i.e. lower quality meta-ethnographies tended to provide lists of the themes coded at this node). In contrast, seminal meta-ethnographies tended to have included that information in the reporting of earlier phases.

Reporting of phase 7 within the seminal meta-ethnographies focused on the detailed description of the new model that had been developed. Therefore, the seminal meta-ethnographies had a clearer delineation between reporting the different phases of the meta-ethnography, clearly describing the process of translating and synthesising data from the primary studies, and then expressing their final synthesis or interpretation in a new model or figure.

Stage 2.1b: professional end-user views on the utility of the seminal and poorly reported meta-ethnographies for policy and practice

Introduction

Ultimately, meta-ethnographies are a form of qualitative evidence synthesis that can be used to inform policy and practice. We therefore wanted to include the views of meta-ethnography end-users on the

utility of published meta-ethnographies, to identify issues of reporting important to them. This was based on the assumption that the reporting needs and priorities of end-users may differ to those using meta-ethnographies within an academic capacity.

Research question

What good practice principles in meta-ethnography reporting can we identify to further inform and develop the good practice principles and standards?

Methods

Sample

Individual representatives of organisations were invited to participate if they met at least one of the following criteria:

- works for a government or non-government organisation that uses synthesised evidence on health/social care, or develops or disseminates evidence-based health/social care guidance and advice
- commissions qualitative evidence syntheses
- works in a role related to the use of research evidence for health/social care policy or practice
- is a clinical guideline developer
- distils evidence for policy-makers
- is a health or social care policy-maker
- uses synthesised evidence or synthesises evidence in a professional, non-academic capacity.

A total of 23 UK-based organisations with staff meeting one or more of the above criteria were approached. One organisation, the Association of Medical Research Charities, is a member organisation that circulated an invitation to participate in the project to its 138 medical research charity members. The National Institute for Health Research (NIHR) agreed to circulate the invitation to its board and panel members. In total, 18 organisations agreed to participate. However, seven organisations were not interviewed because of thematic data saturation or unforeseen practical constrains, such as staff sickness within an organisation. The final sample consisted of 11 organisations. A total of 14 people were interviewed, four more than our target. All individuals and organisations that had agreed to be interviewed were invited to participate in stage 3 of the project (stage 3.2 eDelphi consensus studies).

The 14 participants worked in a range of organisations, including non-departmental public bodies, medical research charities and royal colleges. Their areas of focus covered health services, public health and social care, with roles that included clinical guideline and audit development, advising policy-makers, development of professional education and practice, and driving and supporting health and/or social care improvements. With just one exception, none of the participants had read a meta-ethnography prior to their involvement in the project.

Ethics

The interviews were exempt from requiring research ethics approval. University ethics approval was applied for this stage of the study, but the members of the research team were advised that this was unnecessary as the participants we wished to interview were policy makers/decision-makers and interviews would be recorded via detailed note-taking only and direct verbatim quotations would not be used. Despite being exempt from the requirement of ethics committee approval, the project was conducted in accordance with ethical research guidelines.

Data collection

Each participant was sent one seminal and one poorly reported meta-ethnography identified in stage 2.1a. These were selected by the team or interviewee as they were likely to be relevant to the individual participant. Where there was doubt about the potential relevance of a seminal or poorly reported meta-ethnography, participants chose which of several potentially relevant ones they would prefer to comment on (see *Appendix 5, Table 7*).

Participants were asked to discuss the utility of two meta-ethnographies for their professional role. They were not told which meta-ethnography was considered seminal and which was considered relatively poorly reported. They were sent an interview guide (see *Appendix 5*) in advance to allow them to consider their responses when reading the articles. The questions included:

- Were the article's implications for policy and practice clearly reported?
- How much confidence would you have in using the findings in your professional capacity?
- What, if anything, is missing from the article that you would need to know to be able to implement the evidence/findings?

Participants' responses were collected by RJR via telephone ($n = 13$) or e-mail ($n = 1$). Detailed notes were taken of participant responses during telephone data collection.

Data analysis

The detailed notes and the e-mail responses were read and reread by Rachel J Roberts and potential themes identifying the key elements that constitute good (and poor) reporting for professional end-users of meta-ethnography were developed. Initial findings were discussed by Rachel J Roberts, Isabelle Uny, Emma F France and Nicola Ring during regular team meetings, and with the wider project group during scheduled meetings.

Findings

A summary of participants' perceptions are presented below and the differences between how professional end-users and academics approach, judge and use meta-ethnography articles are highlighted.

Judging the reporting 'quality' of meta-ethnographies

In contrast to the views of the eMERGe Project Advisory Group members who had originally graded the quality of the meta-ethnographies, six of the end-user participants preferred the meta-ethnography that had been categorised as being poorly reported to the one that had been judged to be seminal, for example because the seminal one was perceived to provide too much detail about methods or its findings and implications were not considered as clear as the 'poorer' meta-ethnography. Five participants preferred the seminal meta-ethnography and three participants were neutral with no preference shown. Participants did not consistently share the same views about the publications, that is, they did not like or dislike the same papers as one another.

The utility of meta-ethnography to inform policy and practice

Participants were asked whether or not they saw a role or relevance for meta-ethnographies within their organisation. Some of their responses highlighted benefits and uses that could apply to qualitative evidence synthesis in general and others emphasised benefits associated specifically with the processes and outcomes of meta-ethnography. Some participants particularly valued the ability of meta-ethnographies to provide a conceptual development beyond the primary studies. Although participants highlighted some potential benefits of using meta-ethnographies within policy and practice development, they said that they would be unlikely to see articles such as those they had been asked to comment on within their normal professional roles. Although peer-reviewed journal articles were commonly used by the participants in their work, only one participant had come across a meta-ethnography before. Some stated that it was unlikely that they would have seen the articles they were asked to comment on owing to the focus of or the inaccessibility of journals in which they were published.

Participants often commented on the time limitations they faced in their professional role, with some highlighting how these influenced the way in which they read or used journal articles. Unlike academics, professional end-users do not tend to reread articles. They like to read quickly, even skimming or speed reading. They prefer articles that are short and well structured, use plain English and are presented in such a way that key points are easily identified.

The time frames within which many end-users work do not allow for extensive searching or reading all the literature that is potentially available and/or relevant to their needs. In line with this, participants want to know, right from the start, that the article is relevant before spending time reading it.

Furthermore, owing to time constraints, participants particularly favoured articles with comprehensive abstracts that reported the key details of the text: information about the primary studies, the review findings and their implications. This is not only so that they can immediately judge the relevance of the article but also because the provision of a comprehensive abstract saves them time and reduces their workload when reading the article.

Participants suggested that policy-makers and practitioners prioritised the findings and conclusions of the meta-ethnographies rather than the methods. This does not mean that the methodological information reported was unimportant. Participants recognised the need for methodological detail, but were not interested in it themselves.

The following sections present the interview findings according to meta-ethnography phases 2–7. However, none of the participants spoke of the seven phases of meta-ethnography when providing their comments.

Phase 2: deciding what is relevant

Quality appraisal of primary studies was raised by only two participants, both of whom wanted quality appraisal to have been done, although only one of them felt that it was necessary to report this.

Phases 3 and 4: reading included studies and determining how studies are related

Many participants discussed the amount of detail provided about the primary studies reviewed in the meta-ethnographies. They discussed the need for contextual information such as sample size, policy and clinical contexts, and population demographics (including country, age, gender and socioeconomic status, and so on). Participants wanted to see information about the themes identified from the primary study accounts. Demographic and contextual information was important to participants as it allowed them to judge the relevance of the article's findings to their own populations of interest. In addition to enabling the end-user to judge the meta-ethnography's relevance to their needs, providing sufficient detail of the characteristics and contexts of the primary studies strengthened the confidence participants had in the meta-ethnography's findings.

Phases 5 and 6: translating studies into one another and synthesising translations

Participants were unfamiliar with the analytical processes of meta-ethnography. When commenting on how these processes were reported within the meta-ethnographies they had reviewed, their discussion focused on the clarity and depth of reporting within the methods sections of the articles. Participants often discussed the methods sections of the meta-ethnographies they were critiquing by comparing one with the other, and it was when commenting on the methods sections that their preference for one article over another became clear. If the interviewee was unable to see clearly what analytical processes had been followed, their confidence in the findings of the meta-ethnography was reduced.

Phase 7: expressing the synthesis

Participants were asked how clearly they felt that the meta-ethnography authors had reported both the findings and the implications of these for policy and practice. Some of the meta-ethnographies were judged by participants to have reported the findings and their implications clearly, and they found this a useful inclusion to the article, which suited their needs and timeframes. Others felt that the meta-ethnographies had not done enough to spell out the implications of their findings for policy and practice. This information was either missing or had not been drawn out strongly enough.

Participants often made the point that the meta-ethnographies were not necessarily written for a policy or practice audience and this influenced both the style and content of the reporting. Despite this, some felt that the authors could have done more to increase the meta-ethnography's utility for policy and practice.

Other participants suggested the need for some 'translational work' to be done before the findings of the article could be applied. Finally, some participants highlighted the need for review findings to be reported to policy or practitioner stakeholders in a different format such as an executive summary or policy briefing.

Discussion of stages 2.1a and 2.1b

Poor reporting can be a barrier to end-users' trust in, and subsequent use of, meta-ethnography findings to inform policy and practice. We identified aspects of reporting that are important to end-users and that may differ to those using meta-ethnography for academic purposes, in order to ensure that these aspects were considered during the reporting guidance development. The documentary analysis of 29 seminal or poorly reported meta-ethnographies, together with the interviews of potential end-users of meta-ethnographies enabled us to identify good practice principles and contributed towards our development of standards in the reporting of meta-ethnographies.

Both the data analysis of the seminal and poorly reported meta-ethnographies and the interviews with professional end-users suggested that it was difficult to identify clear boundaries between the reporting of meta-ethnography phases. This influenced the development of the guidance and reporting standards by further reinforcing the project team's understanding that some reporting standards could potentially sit within more than one phase of a meta-ethnography.

Analysis of the seminal and poorly reported meta-ethnographies showed that, on the whole, the seminal meta-ethnographies provided far more detail on their conduct within these phases than the poorly reported meta-ethnographies. The authors of the seminal meta-ethnographies provided more of a step-by-step description of the processes followed by the review team and the reasoning behind them. A variety of processes were adopted during analysis and synthesis, with the commonality being clear, detailed description, typically with illustrative examples from the review being discussed.

Not all of the interview participants' reporting requirements were met by all of the meta-ethnographies. Participants stressed the need for clear, comprehensive information on a meta-ethnography's scope, findings and implications for policy and/or practice. This was required to enable end-users to quickly judge the article's relevance to their needs. For participants, a meta-ethnography's relevance was not limited to potential matches between the end-user's population of interest (e.g. a particular patient group) and the samples within the primary studies reviewed. In order to be considered relevant, end-users also wanted credible findings and implications that they could use in practice. Because it is a meta-ethnography's findings and the implications of these that are of key interest to professional end-users, if the primary focus of the article is methodological development or theoretical debate (as was the case for some of the seminal meta-ethnographies), it is typically of less interest to them. Formats such as executive summaries or policy briefings regarding the meta-ethnography findings could meet some of their unmet needs more effectively than academic journal articles.

The findings of the studies presented in 2.1a and 2.1b are limited by the subjective judgement of papers perceived to be seminal or poorly reported meta-ethnographies by the Project Advisory Group or the authors of the reviews they were drawn from, and the relatively small number of professional end-users ($n = 14$) interviewed. Nevertheless, their findings provided additional perspectives and insight that guided the development of draft reporting standards.

Stage 2.2: audit of published meta-ethnographies using provisional reporting standards

The stage 2.2 research question was:

> *From the good practice principles, what standards in meta-ethnography conduct and reporting can we develop to inform our future guidance?*

To answer this question we:

- developed provisional reporting standards derived from stage 1 and stage 2.1 good practice principles and recommendations, including recommendations about the aspects of meta-ethnography that are important to end-users
- audited a sample of published health- and/or social care-related meta-ethnographies to –
    - determine the extent to which they met our provisional standards, and
    - identify ways in which our provisional standards could be refined to better inform the development of our reporting guidance.

Although the provisional reporting standards used in the audit contributed towards eMERGe reporting guidance development, it is important to differentiate the two. The eMERGe guidance is intended to guide future meta-ethnography reporting, whereas the standards used in the audit supported guidance development by enabling systematic comparison of current/past meta-ethnography reporting against criteria considered indicative of good meta-ethnography reporting. The audit provided specific in-depth evidence of how existing meta-ethnography reporting did, or did not, fulfil the good practice(s) identified in stage 1. Comparing the sample of published meta-ethnographies with the provisional standards also enabled the auditors to assess the feasibility and comprehensibility of the initial standards.

Audit methods

Nicola Ring and Emma F France led the development of the provisional audit standards but all team members were involved in refining these. Ruth L Turley conducted the searches for the sample meta-ethnographies. Isabelle Uny, Nicola Ring and Emma F France screened potential studies for inclusion in the audit. Emma F France, Nicola Ring, Rachel J Roberts, Jane Noyes, Margaret Maxwell and Ruth L Turley audited sampled meta-ethnographies against the provisional standards. The audit was conducted in April 2016.

Identification of sample of meta-ethnographies for audit

A systematic search was carried out in six electronic databases in October 2015. The search was comprehensive to identify all possible meta-ethnographies that could be included in the audit. The databases searched and the search terms used in stage 2.2 are included in *Appendix 6*. In order to capture published meta-ethnographies from a broad range of disciplines and journals for the audit, the team added broad multidisciplinary databases (SCOPUS and Web of Science) as a replacement for discipline-specific databases such as ASSIA (Applied Social Sciences Index and Abstracts), PsycARTICLES and PubMed as these had already been searched in stage 1. The search was carried out by a researcher highly experienced in the conduct of systematic reviews (RLT). Those records found in the databases search were then merged with records identified in a search for meta-ethnographies in the Cochrane register of qualitative evidence syntheses. Removing duplicates resulted in a total of 571 items (see *Figure 7*). These items were then screened by titles and abstracts (IU) to exclude all meta-ethnographies that did not meet the following inclusion/exclusion criteria:

- Inclusion criteria –
    - title, abstract and/or keywords made reference to meta-ethnography or meta-ethnographic techniques or methods of Noblit and Hare[25]
    - report of a synthesis of primary qualitative research studies
    - had a health- or social care-related focus (e.g. patients' experiences of a health condition or health service; health professionals' experiences of delivering care; personal experience of health promotion initiatives or public health issues)
    - published between 1994 and 2015 in English, French or Spanish.[43]

- Exclusion criteria –
  - title, abstract and/or keywords made no reference to meta-ethnography or meta-ethnographic techniques or to methods of Noblit and Hare[25]
  - not a qualitative evidence synthesis, or, if a qualitative evidence synthesis, not conducted using approaches other than meta-ethnography
  - did not have a health or social care focus (e.g. school education)
  - meta-ethnographies reported in languages that could not be translated by the team
  - meta-ethnographies first-authored by members of the Project Advisory Group and worked examples included in stage 1 or stage 2.1.[43]

Initial screening reduced the number of possible meta-ethnography studies for inclusion in the audit to 243. From this pool of possible studies, a purposive sample with a wide range of published meta-ethnographies was selected (EFF, IU, NR) using the following inclusion criteria:

- published in a range of different journals (e.g. medical, nursing, midwifery, allied health professional, social care or social science) and at least one meta-ethnography in report rather than journal article format
- conducted by reviewers in different disciplinary backgrounds (e.g. medicine, nursing, midwifery, sociology, psychology, allied health professions, social work), in different countries and from different philosophical traditions
- conducted by single and multiple (team) reviewers
- national and international focus of primary studies (e.g. included studies from different countries)
- included different types of qualitative data
- standalone meta-ethnography study and meta-ethnography conducted alongside a quantitative systematic review
- examples represented a range in number of included studies (e.g. < 10, > 50)
- reviewers reported using 'normal' versus 'adapted' or 'modified' meta-ethnography methods.

Meta-ethnographies for inclusion in the purposive audit sample were screened initially based on title and abstract. The goal of purposive sampling and selection was to ensure that the final audit sample was diverse with a wide range of included meta-ethnographies but it was a time-consuming process. As sampling progressed, some meta-ethnographies were excluded because the sample contained too many on the same health topic or from the same type of journal or country. Selected meta-ethnographies were chosen because they offered a different perspective from other sampled meta-ethnographies, such as being from a different continent or conducted by a single reviewer or from a different discipline. The sampling process highlighted a significant increase in recently published meta-ethnographies, so the decision was taken to exclude older articles (pre 2005) because they did not reflect contemporary developments in the field. An initial purposive sample of 49 meta-ethnographies was sent to the full project team for their review prior to the final selection of 40 eligible studies being made. However, when full texts of these 40 papers were read, 21 of these publications were reported in formats that were not recognisably meta-ethnography (e.g. they combined qualitative and quantitative data or appeared to be literature reviews). Project time scales meant that authors could not be contacted for additional information and clarification so, after team discussion, these publications were removed from the audit sample. This resulted in a final audit sample of 19 (*Figure 7*).

Development of provisional standards and audit tool

The development of provisional standards was a lengthy and iterative process. Initially, a Microsoft Word 2010 (Microsoft Corporation, Redmond, WA, USA) version 14 template was created based on the seven meta-ethnography phases identified by Noblit and Hare[25] and the new phase 0 (choosing meta-ethnography) identified during stage 1. Every item of advice and recommended practice reported in stage 1 and stages 2.1a and 2.1b for these phases was transposed into the template and converted into draft standard(s). A bespoke audit tool was then created around these draft standards (*Table 2*). The audit standards needed to be measurable. Rather than reporting whether standards were met as either a 'yes' or

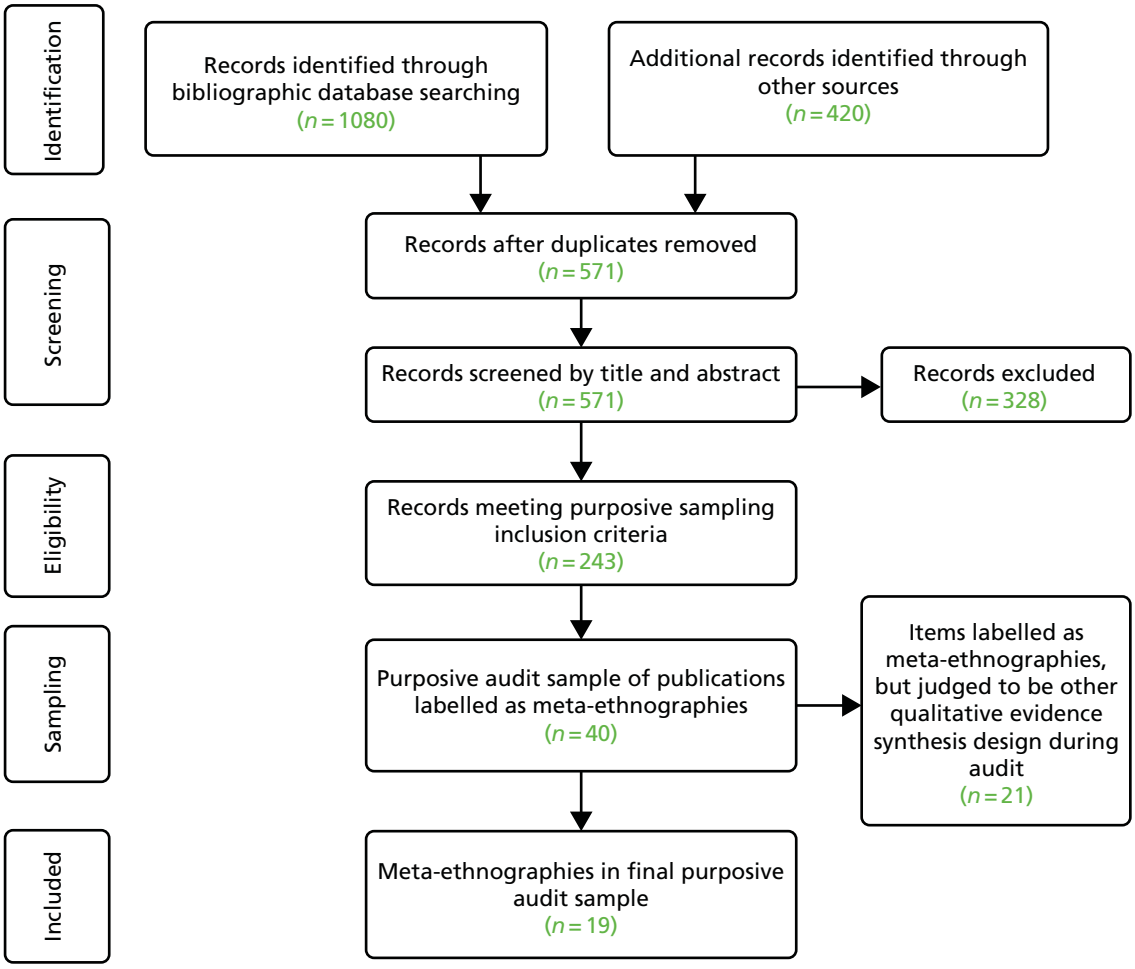


FIGURE 7 The PRISMA flow diagram for stage 2.2. Adapted from Moher *et al.*[32] This is an Open Access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

TABLE 2 Excerpt from version 1 of the draft standards and audit reporting tool

Advice/recommendations	Standard(s)	Evidence source(s)
Phase 1: getting started with meta-ethnography		
Reviewers need to understand the topic/subject area well enough to know that there is qualitative data potentially suitable for inclusion in a meta-ethnography	Meta-ethnography reports in their introduction or literature review should: provide information on the availability of qualitative data at the outset of the study that potentially could be synthesised	Stage 1

Audit tool (version 1)						
Standard number	Phase 1: getting started with meta-ethnography Meta-ethnography reports should include –	Yes – in full	Yes – in part	No	N/A	Comment
1/1	Information (e.g. in a literature review) on the availability of qualitative data that potentially could be synthesised					

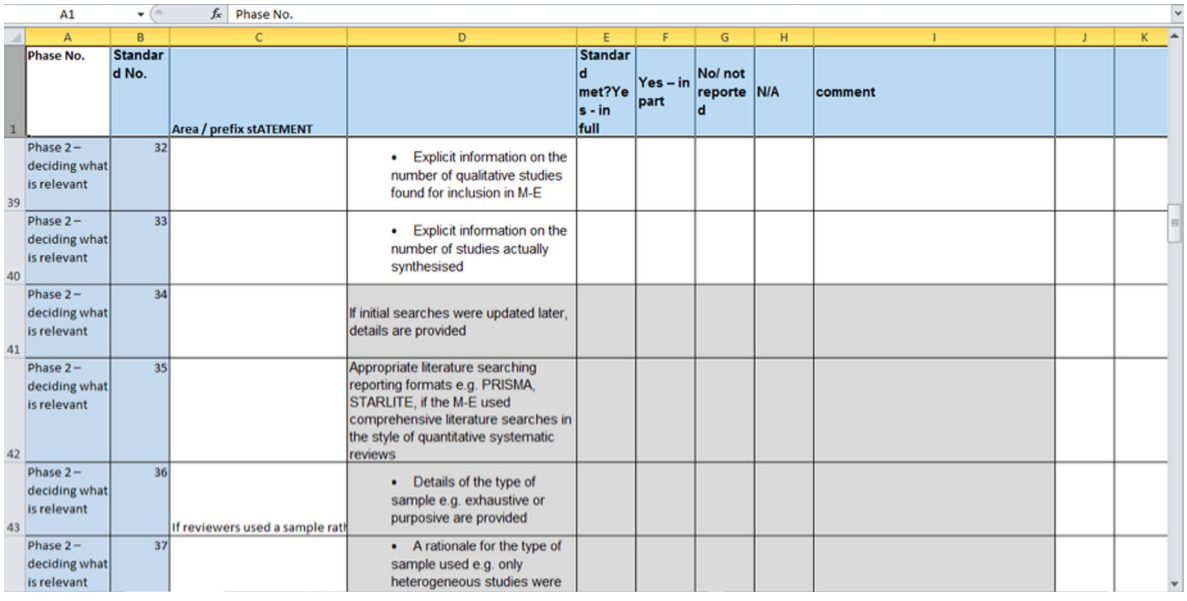
N/A, not applicable.

'no', the standards measured whether criteria were met in full, in part or not at all. Some standards (e.g. those relating to comprehensive literature searching methods and quality appraisal) did not apply to every study, so the audit tool was designed to differentiate between standards that were not applicable compared with those that were not met.

Version 1 of the audit tool was then refined (e.g. similarly worded standards appearing in the same meta-ethnography phase were merged to avoid repetition), creating version 2 of the audit tool, which was then piloted. Nicola Ring and Emma F France intended to independently pilot the tool on two meta-ethnographies randomly selected from the audit sample[60,61] and then compare/discuss their findings prior to revising the tool pre audit. Applying the audit tool was more complex than anticipated because of the large number of standards (initially there were 138), inconsistencies in reporting and the nature of meta-ethnography, so Emma F France and Nicola Ring jointly applied the audit tool initially to both papers and then to a third paper (Montforte-Royo *et al.*,[62] also from the audit sample). The pilot enabled Emma F France and Nicola Ring to revise the draft standards (e.g. removing ambiguous language and duplicate standards). Version 3 of the audit reporting tool contained 109 provisional standards, of which 86 applied to all papers. To facilitate collation of results and data analysis, version 3 was converted into Microsoft Excel® 2010 (Microsoft Corporation, Redmond, WA, USA) version 14 format (version 4); an excerpt is shown in *Figure 8*, and *Tables 8–15* (see *Appendix 7*) contain details of all standards. For each standard, a result of fully met, partially met, not met or not applicable was recorded (using a '1'); these four possible outcomes were for audit use only. Standards that may not apply to every meta-ethnography were shaded grey for easy identification. There were cells/space for auditors to make comments on individual standards as well as overall comments. Use of the audit tool was explained to auditors during a team meeting and written guidance was provided. Auditors were randomly assigned a selection of meta-ethnographies for auditing. Once each paper was audited, results were checked by a second member of the audit team. Any disagreements were referred to Nicola Ring or Emma F France for a final decision. Post audit, the project team met to discuss the audit process and content of provisional standards.

Data analysis

Audit data were analysed qualitatively and quantitatively (EFF). Descriptive statistics were prepared to identify how many provisional standards were met (in full, in part or not at all) by each publication across the meta-ethnography phases. After audit data were collated and analysed, findings were presented to the project team who discussed the findings to ensure rigour and to reach a richer interpretation. For each



	A	B	C	D	E	F	G	H	I	J	K
1	Phase No.	Standard No.	Area / prefix stATEMENT		Standard met?Yes - in full	Yes – in part	No/ not reported	N/A	comment		
39	Phase 2 – deciding what is relevant	32		• Explicit information on the number of qualitative studies found for inclusion in M-E							
40	Phase 2 – deciding what is relevant	33		• Explicit information on the number of studies actually synthesised							
41	Phase 2 – deciding what is relevant	34		If initial searches were updated later, details are provided							
42	Phase 2 – deciding what is relevant	35		Appropriate literature searching reporting formats e.g. PRISMA, STARLITE, if the M-E used comprehensive literature searches in the style of quantitative systematic reviews							
43	Phase 2 – deciding what is relevant	36	If reviewers used a sample rat	• Details of the type of sample e.g. exhaustive or purposive are provided							
	Phase 2 – deciding what is relevant	37		• A rationale for the type of sample used e.g. only heterogeneous studies were							

FIGURE 8 Excerpt of the Microsoft Excel audit tool (version 4).

standard, qualitative feedback from auditors was recorded on a Microsoft Word template. This enabled identification of standards that were ambiguous and/or overlapping in content and required refinement or deletion. It also provided a more nuanced understanding of meta-ethnography reporting and highlighted where standards needed to be strengthened/clarified to better reflect practice. Auditor feedback also identified aspects of the meta-ethnography process that required discussion with Professor George Noblit on his visit to Scotland.

Audit findings

This was a retrospective audit. Sampled meta-ethnography publications were audited against provisional reporting standards that did not exist when these papers were written. Audit findings simply indicate how these previously published meta-ethnographies were reported compared with the provisional reporting standards. Audit findings should not be taken as comment about the quality or robustness of individual meta-ethnography studies. Meta-ethnography reporting is known to be problematic.[29] It is not intended that individual audited publications are singled out as examples of poor reporting when meta-ethnography reporting generally is suboptimal. Consequently, this report presents an overview of the main audit findings (including reporting strengths and weaknesses) and, where possible, we have avoided referring to individual publications. Findings are, in the main, presented for the 86 standards that applied to each meta-ethnography.

Nineteen publications from 18 studies were included in the audit (*Table 3*). These meta-ethnographies were published in 16 journals and one report by authors from nine countries. Two papers were single authored. One study appeared as a journal paper and a report. Two studies conducted the meta-ethnography alongside a quantitative systematic review on the same topic.[63,64] The number of included studies in these meta-ethnographies ranged from 4 to 51 (see *Table 3*).

Seventeen of the 19 audited meta-ethnographies fully or partially met ≥ 50% of the applicable audit standards but there were considerable variations in reporting; for example, the applicable standards met in full for each publication ranged from 43% to 88% (mean 63%) (see *Table 3*). Mostly, the audit standards were met in part rather than in full: only six publications (32%) were considered to meet fully ≥ 50% of the applicable standards. The publication meeting most standards in full or in part (88%) was, however, 300 pages long (Galdas *et al.*[63]). Overall, the 19 meta-ethnography publications all had some reporting strengths, but there were other elements of their reporting that were less good. So, a publication may have met a relatively small number of standards in full but, overall, be well reported because lots of other standards were met in part. This is best illustrated by the meta-ethnography study that was audited in two publication formats: the journal paper (Wells *et al.* 2013[65]) met more standards overall (in full and in part) but the research report (Wells *et al.* 2011[64]) met more standards in full (see *Table 3*).

The percentage of applicable audit standards met in each meta-ethnography phase varied considerably. Only two meta-ethnography phases had ≥ 70% of their applicable standards met (see *Table 3*). On average, the three best-reported meta-ethnography phases were phase 7 (expressing the synthesis), phase 6 (synthesising translations) and phase 1 (getting started), with a mean of 76%, 70% and 68% of standards fully or partially met, respectively (*Table 4*). Overall, the three least well reported phases were phase 0 (selecting synthesis approach), phase 3 (reading the studies) and phase 5 (translating studies), with 50%, 38% and 51% of standards met to some extent, respectively (see *Table 4*). The number of audit standards met varied between individual publications. For example, in phase 4 the number of applicable standards met by each publication ranged from two to five, with no study meeting all applicable standards.

Phase 0 (selecting meta-ethnography) contained seven standards applicable to every publication. Across the 19 publications, 50% of these standards were fully or partially met, with an average score of 3.4 standards met to some extent. Overall, the best-reported standard related to the type of social explanation that reviewers wanted to produce: 17 audited publications met this standard in full or in part. Although reviewers were good at reporting their review context and specifying why meta-ethnography was selected as the most appropriate qualitative evidence synthesis approach (see *Appendix 7, Table 8*), in most cases

TABLE 3 Overview of audited meta-ethnography publications

Author(s)	Journal	Year	Country of authors	Number of included studies	Standards met in full or in part,[a] %	Conducted quality appraisal	Used PRISMA or equivalent	Used ENTREQ
Galdas *et al.*[63]	*Health Services and Delivery Research*	2015	UK	38	88	✓	✓	✓
[b]Wells *et al.*[64]	*Research Report*	2011	UK	25	58	✓	✓	–
[b]Wells *et al.*[65]	*Psycho-Oncology*	2013	UK	25	62	✓	✓	–
Garrett *et al.*[66]	*Chronic Illness*	2012	UK	27	83	✓	✓	–
Hoy[67]	*International Journal of Men's Health*	2012	Canada	51	80	✓	–	–
Monforte-Royo *et al.*[62]	*PLOS ONE*	2012	Spain	7	75	✓	✓	–
Purc-Stephenson and Thrasher[68]	*Journal of Advanced Nursing*	2010	Canada	16	69	✓	–	–
Hole *et al.*[69]	*Scientific World Journal*	2014	UK	13	67	✓	✓	–
Lucas *et al.*[70]	*Scandinavian Journal of Primary Health Care*	2015	UK	15	66	✓	✓	✓
Priddis *et al.*[71]	*Journal of Advanced Nursing*	2013	Australia	4	65	✓	✓	–
Sinnott *et al.*[72]	*BMJ Open*	2013	Ireland	10	60	✓	✓	✓
Cullinan *et al.*[73]	*Drugs & Aging*	2014	Ireland	7	58	✓	✓	✓
Molony[74]	*Research in Gerontology Nursing*	2010	USA	23	57	–	–	–
Errasti-Ibarrondo *et al.*[75]	*Nursing Outlook*	2015	Spain	9	56	✓	✓	–
Kane *et al.*[76]	*Child: Care, Health and Development*	2007	UK	6	54	✓	–	–
Soundy *et al.*[77]	*Health Psychological Review*	2013	UK	10	54	–	–	–
Ypinazar *et al.*[78]	*Australian and New Zealand Journal Psychiatry*	2007	Australia	4	50	–	–	–

continued

TABLE 3 Overview of audited meta-ethnography publications (*continued*)

Author(s)	Journal	Year	Country of authors	Number of included studies	Standards met in full or in part,[a] %	Conducted quality appraisal	Used PRISMA or equivalent	Used ENTREQ
Wikberg and Bondas[79]	*International Journal of Qualitative Studies Health and Well-being*	2010	Finland, Sweden and Norway	40	49	–	–	–
Malterud and Ulrikson[80]	*International Journal of Qualitative Studies in Health Wellbeing*	2011	Norway	13	43	✓	–	–
						15 (14 studies)	11 (10 studies)	4 (4 studies)

a Data calculated for each publication based on standards that applied in each phase.
b Journal and report from the same study. These items were not identified via the systematic database search (meta-ethnography or Noblit and Hare[25] were not referred to in the title, abstract or keywords) but were included in the final purposive sample as an example known to the research team of one study being reported in two different formats.

TABLE 4 Summary of reporting across the meta-ethnography phases by all publications

Meta-ethnography phase	Best reported compared with standards (%)	Least well reported compared with standards (%)	All applicable standards for this phase ($n = 86$), *n*	Average standards met, *n*
0 (selecting meta-ethnography as qualitative evidence synthesis approach)		50	7	3.4
1 (getting started)	68		5	3.3
2 (deciding what is relevant)	61		17	9.9
3 (reading the studies)		38	13	4.8
4 (determining how studies related)	60		6	3.7
5 (translating studies)		51	20	9.5
6 (synthesising translations)	70		3	2.1
7 (expressing the synthesis)	76		15	10.8

Data calculated for each publication on the basis of standards that applied in each phase (in full and in part). Then data calculated for all publications according to meta-ethnography phase.

reporting lacked depth. For example, reviewers stating that meta-ethnography was chosen because it had been 'used with good effect in health research',[73] rather than providing a fuller rationale as to why meta-ethnography was considered to be the most appropriate qualitative evidence synthesis approach (e.g. 'it emphasises concept').[63] The poorest-reported standards related to reviewers stating the type of social explanation they expected to produce in line with Turner's theory,[45] their qualitative expertise and their interpretive perspectives, such as their epistemological position.

Phase 1 (getting started) contained five standards applicable to every publication. Overall, this phase was relatively well reported across the 19 publications, with 68% of these standards being fully or partially met and an average score of 3.3 standards met to some extent. Consequently, phase 1 was one of the best-reported phases in the audit. Reviewers were good at reporting the knowledge gap to be filled by meta-ethnography ($n = 18$) and their review aims ($n = 19$). However, reporting of review questions or objectives needed to be improved as most publications ($n = 12$) did not explicitly specify these, which meant that, at times, auditors were unable to determine whether or not these were congruent with meta-ethnography, for instance, whether researchers planned to produce a new theoretical model (which is appropriate to meta-ethnography) or integrate qualitative and quantitative findings (which is more suited to another qualitative evidence synthesis method).

Phase 2 (deciding what is relevant) contained 17 standards applicable to every publication, making this the second largest audit section. More than half (61%) of the phase 2-applicable standards were fully or partially met, with an average score of 9.9 standards met across the 19 publications. This phase included standards relating to how reviewers identified studies for synthesis, such as which databases they searched, the search terms used and the study inclusion criteria, as well as the outcome of the literature searching. The 19 meta-ethnographies were from 18 studies; 10 (56%) of these studies used PRISMA[32] (or equivalent) reporting and four (17%) used ENTREQ[34] (see *Table 3*). Overall, meta-ethnography reporting in phase 2 was enhanced through the use of such guidelines, and several standards (numbers 19, 20, 31 and 33) were notable because all meta-ethnographies met these (although not always in full). Areas in phase 2 in which reporting could be improved included identifying which reviewers were involved in the literature searching, stating whether or not reviewers initially worked independently during the search process and by providing more information about search strategies and decisions, such as the years the data search covered. In addition, although all meta-ethnographies provided details on their study inclusion and exclusion criteria, more depth of information was needed.

Overall, phase 3 (reading of studies) was not well reported, with only 38% of the 13 applicable standards being met to some extent (average score of 4.8 standards fully or partially met). There was, for example, lack of clarity about who read the included papers and how data were extracted, including what level of constructs were extracted from the original studies, who extracted data, whether researchers extracted all relevant information from original studies or selected material only and whether or not extracted data were checked for accuracy. A total of 95% of the publications ($n = 18$) were considered to have partially or fully met the standard pertaining to the reporting of original studies' contextual information. This high level of reporting was achieved, with one exception, because audited publications provided tabular summaries of included studies (e.g. country of research, number/type of participants and research methods) and a short narrative description. However, across these 18 publications, wider contextual information was not well provided. For instance, the gender and ethnicity of original study participants was poorly reported, although there were some exceptions to this. As Monforte-Royo *et al.*[62] noted, such information is not always formally described in the original studies. The omission of such details in original studies needs to be explicitly acknowledged in meta-ethnography reports because this contextual information can influence original study findings and, therefore, meta-ethnographic interpretation. Overall, the audited meta-ethnography reports did not explicitly state whether or not reviewers looked for such contextual information in their included studies and this area of reporting needs to be improved in future.

Phase 4 (determining how studies relate) was reasonably well reported, with 60% of the six applicable standards fully or partially met (average score of 3.7 standards met to some extent). Most audited publications met the standards for reporting how reviewers decided that the studies were related ($n = 16$), whether or not the studies were commensurable in focus ($n = 15$) and showing how they related them ($n = 14$) but, half of the time, this reporting lacked depth and these standards were deemed to be only partially met. Generally, reports about how original studies were related focused on their theoretical approaches, concepts/metaphors, types of health conditions and/or countries. Often, included studies were disparate, for example in terms of their health focus, cultural setting(s) and research design, and it was unclear to auditors how these studies related to each other, especially in meta-ethnographies with a large number of included studies (e.g. > 50). Inconsistent reference to, and interchangeable use of, included 'studies' and included 'papers' in the meta-ethnography reports meant that auditors were sometimes uncertain about whether or not individual papers were related because they were part of the same original study. Overall, how studies within the audited meta-ethnographies were related by temporal context was under-reported. Although the year of publication of original studies was provided, these meta-ethnography reports did not indicate how studies related in a wider temporal context (e.g. whether the original studies were conducted before/after the introduction of an international health policy or clinical guideline that may have influenced their findings and interpretations). Another poorly reported standard related to how multiple perspectives (e.g. academic or sociocultural) were introduced by the reviewers into phase 4; only seven audited publications (37%) fully or partially met this standard.

Phase 5 (translating studies) had the largest number of applicable standards ($n = 20$). Half (51%) of these applicable standards were fully or partially met (average score of 9.5 standards met to some extent). All publications provided some narrative regarding their phase 5 processes but this was usually too brief to enable auditors to fully understand how this essential meta-ethnography phase was conducted. Alternatively, such information was incomplete with, for example, details provided about the processes of LOA synthesis but not translation. Although all ($n = 19$) audited publications reported on the number of studies translated (this was the best-reported phase 5 standard), only 14 (74%) explicitly reported whether or not this number was also the same as the number of studies included in the LOA. Generally, there was a lack of information regarding how reviewers took steps, if any, to preserve context and meaning between concepts within and across individual studies during translation and/or whether or not sociocultural factors were considered during LOA synthesis [only eight (42%) and six (32%) publications met these standards to some extent, respectively]. Publications were good at stating what type of translation processes they had conducted ($n = 17$, 89% met this standard in full or in part), but it was less clear which methods they used to translate included studies [12 publications met this standard (63%) with only five doing so in full]. Reporting of refutational analysis processes, that is, where reviewers look for disconfirming cases, was not well done

with most audited publications either meeting these standards in part or not at all. Where publications did report conducting refutational analysis, this usually involved looking at themes or metaphors that contrasted across individual studies, few audited publications reported considering refutational translation from wider contextual perspectives such as gender or ethnicity of original participants. Most publications ($n = 18$, 94%) presented grids/tables reporting the outcome of their translations and/or LOA synthesis but the depth of such information varied and was sometimes too brief to be really helpful to auditors, even when a supporting narrative was provided.

Phase 6 (synthesising translations) had the lowest number of standards overall (five in total). Only three standards applied to every publication and 70% of the audited publications fully or partially met these standards, with an average score of 2.1 standards being met. The best-reported phase 6 standard asked reviewers to state their new third-order interpretation in text or visually: all publications met this standard, although there was variation in the depth of information provided. Overall, reporting of methods used to develop synthesised translations was inadequate because only 13 audited publications met this standard and in half of these cases, the standard was considered to be only partially met. It was also unclear which reviewers were involved in synthesising translations (only eight publications met this standard). This is an important omission as auditors were uncertain as to which individuals from a team of reviewers had contributed to the synthesis and from what perspective(s) (e.g. discipline and/or epistemology).

Phase 7 (expressing the synthesis) was the best-reported phase overall, with 76% of the 15 applicable standards being met (average score of 10.8 standards fully or partially met). The best-reported standards included those identifying how findings related to potential end-users, the source of provided quotes and the overall limitations of the meta-ethnography (> 80% of the audited publications met these standards to some extent). How review limitations may have affected credibility and trustworthiness of the findings and possible limitations of the new theory or interpretation, such as whether or not it may apply to only certain groups, were fully or partially met in 68% of audited publications ($n = 13$). Although the audited publications were generally good at highlighting limitations of their review, such reporting focused on the limitations of the original studies rather than reviewers considering whether or not the ways in which they had conducted the meta-ethnography may have limited their findings. In particular, the poorest reporting related to the standard that asked reviewers to state how they encouraged reflexivity during development of their new interpretation [only five publications (26%) met this standard to some extent]. For this standard, auditors were specifically looking for evidence that reviewers had considered, for example, whether or not their new interpretation might be different if the review team consisted of individuals with different epistemological, academic, gender or cultural perspectives or, alternatively, whether or not reviewers had considered if their meta-ethnography findings were limited because of how they selected and related studies, or whether or not they had considered their final interpretation specifically in the context of disconfirming cases in their data. Among the audited publications, Galdas *et al.*[63] was one of the few that met this standard by, for example, reflecting on the gender of its reviewers. In addition, only six publications (32%) were considered to have fully or partially met the standard that asked reviewers to state what steps they took to keep their interpretation grounded in the original data.

The ENTREQ statement[34] was designed to enhance transparency in the reporting of all types of qualitative evidence syntheses. Nine (48%) out of the 19 audited meta-ethnographies were published post ENTREQ, but only four of these explicitly referred to using ENTREQ to guide their meta-ethnography reporting (see *Table 3*). The applicable standards fully or partially met by these four publications varied from 58% to 88% (see *Table 3*). The best-reported publication in the audit (the one meeting most applicable standards in full or in part) did use the ENTREQ reporting guidance but this publication was 300 pages long, so its reporting should be more comprehensive than meta-ethnography reports confined by journal word limits. The PRISMA reporting guidance,[32] although developed for quantitative systematic reviewing, was frequently used among the meta-ethnographies. Eleven (65%) out of the 17 post-PRISMA audit publications used this framework (or a variation of it) to guide their meta-ethnography reporting. PRISMA and ENTREQ, when used in the audited publications, did enhance reporting overall (specifically in the early stages of meta-ethnography) by, for example, providing clarity in how studies were identified for inclusion. PRISMA and ENTREQ probably

also account for the widespread use of quality appraisal of included studies in the audited meta-ethnographies. Quality appraisal is a debated issue in meta-ethnography and is not always conducted, so these audit standards did not apply to every study. Nonetheless, most audited meta-ethnographies (78%; see *Table 3*) quality appraised their included studies in some way. This finding may also reflect the publication context of these meta-ethnographies as their target journals (or funders) may have expected this practice.

Discussion

Initially, 40 meta-ethnographies were identified for inclusion in the audit based on the reading of their title and abstracts (standard practice in systematic reviewing); however, when the auditors read the papers in full, 21 (52%) were not recognisable as meta-ethnographies and were excluded from the final audit sample. This is a significant finding because, for inclusion in the audit, publications had to refer to meta-ethnography, meta-ethnographic technique or Noblit and Hare[25] in their title and/or abstract. Some were not reported in a format that was recognisable as meta-ethnography because, for example, they appeared as literature reviews, aggregated qualitative data or combined qualitative and quantitative studies in the one synthesis. Some of these 21 publications may have been conventional meta-ethnographies, but their reporting did not convey this to the auditors, for example by presenting thematic analysis of constructs reported in the original papers rather than providing a new overarching interpretation, and project time scales were such that original authors could not be contacted for further information. This pre-audit finding reiterates the urgent need for improved meta-ethnography reporting in full text reports/papers and abstracts as well as more judicious use of journal article keywords.

This was not a conventional health-care audit. Usually an audit is applied to discrete processes and outcomes (e.g. did a post-operative patient receive pain relief as per protocol?). Measuring practice against such standards is objective (e.g. did a patient get pain relief at the right time – yes or no?). By comparison, the stage 2.2 audit standards were measuring reporting of a complex and iterative qualitative research methodology within different publications with differing writing styles. We also had six auditors of differing backgrounds (e.g. health professionals, social scientists and information specialists) and with varying interests in meta-ethnography (e.g. researchers, journal editors and academic supervisors). What constitutes good meta-ethnography reporting ultimately depends on the reader's perspective. Consequently, our audit standards could be met in full or in part. Clearly, whether a standard was considered fully or partially met depended on an auditor's viewpoint and we did not assess inter-rater reliability. Nonetheless, the audit enabled trends to be identified across the sampled meta-ethnographies. In particular, although meta-ethnography reporting could be considered to be relatively good with all but two phases meeting > 50% of the applicable audit standards, overall, meta-ethnography reporting needed improving as most standards were considered by auditors to be partially rather than fully met.

The small number of purposively sampled meta-ethnography publications ($n = 19$) is an audit limitation. Although we had planned to have a larger final sample, our actual sample still contained a wide range of meta-ethnography reports, including various topics, journals, countries, academic disciplines and number of included studies. The sample also included single and multiple meta-ethnography reviewers and one study was published in both report and journal paper format. Despite a smaller than planned sample, the audit still generated a wealth of data and allowed the identification of individual standards where reporting needs to be improved. For example, standard 104 in phase 7 (reviewers stating how they encouraged reflexivity in their meta-ethnography) stood out because so few of the audited studies met this standard at all. The audit also enabled a more nuanced understanding of meta-ethnography reporting to develop. For instance, although reporting of the number of studies found for inclusion in a meta-ethnography was good (95% of publications met this standard), there was a need for greater clarity regarding the number of studies actually synthesised, as only 74% of the audited publications provided this information. Another example was a phase 6 standard asking whether or not reviewers of meta-ethnographies that included lots of studies (> 50) stated how they remained grounded with original data to avoid losing conceptual richness during the synthesis of translations. Although only one audited publication had > 50 included studies, the audit process identified that even meta-ethnographies with fewer included studies did not report this aspect well (e.g. reviewers did not state how they preserved the context of studies).

The audit also enabled us to identify ways in which the current meta-ethnography evidence base could be strengthened or refined. In particular, the audit identified that, despite considerable effort during standard development to remove duplication, areas of overlap within and between standards still existed in some meta-ethnography phases. Perhaps the most important example of this relates to phase 6. Synthesising translations is a critical element of meta-ethnography, yet this phase had the fewest number of standards (five overall and only three that applied to all audited studies). During the audit process, it was noted that some phase 5 standards also related to phase 6. For example, standards 72–74 referred to methods of translation and/or synthesis. The standards were systematically based on stage 1 evidence/recommendations for each meta-ethnography phase, so, by highlighting the overlap between these two phases in the theoretical evidence, this finding provides new insight into the lack of clarity in meta-ethnography reporting in practice. This finding suggests that future meta-ethnography reports could be enhanced through clearer differentiation between the specific information required at each of the meta-ethnography phases but especially in the reporting of translating studies (phase 5) and synthesising translations (phase 6).

Use of existing generic reporting frameworks did not help to ensure transparent and robust reporting in the quintessential phases of meta-ethnography (phases 4–6), such as explicit reporting of how reviewers encouraged reflexivity in their review processes and what steps were taken to ensure that meta-ethnography interpretations remained grounded in original data. In particular, use of generic reporting frameworks did not facilitate full reporting of contextual information in these meta-ethnography reports. Earlier stages of the eMERGe study, Project Advisory Group meetings and discussion with Professor George Noblit highlighted the critical importance of context across all meta-ethnography phases. However, the audit identified many ways in which context was poorly reported in the sampled publications across all meta-ethnography phases. For example, in phases 0–1, reviewers did not provide enough information about their review aims and research questions or their purpose for conducting a meta-ethnography. In phases 3–4, there was a lack of wider contextual information regarding studies included in a meta-ethnography, such as participant gender and ethnicity, the temporal context and disciplines/perspectives of the reviewers. There was also ambiguity regarding the context of individual papers, such as reviewers not explicitly stating whether or not any included papers came from the same original study. In phases 5–6, whether or not reviewers considered the contextual differences of included studies as a basis for refutational analysis was generally not stated and there was inadequate reflection on how the internal context of the audited meta-ethnographies influenced the review outcome. For example, how a team consisting of reviewers of a different gender and discipline may have influenced interpretation, or what influence the study selection process may have had of LOA synthesis, was also not reported. Inadequate contextual and reflexive reporting across the meta-ethnography phases was, therefore, an overarching theme arising from the audit findings.

Post audit

Following the audit and subsequent team meetings, the audit standards were reviewed and refined accordingly. For example, there were several standards asking for details of which reviewers were involved at various meta-ethnography phases, so, where possible, these were combined into one standard. The eMERGe audit standards were then considered against existing reporting guidance [PRISMA, ENTREQ and RAMESES (Realist And MEta-narrative Evidence Syntheses: Evolving Standards)]. This was done to align our standards with existing guidance (e.g. on literature searching) and to identify where our standards were different because they reflected the unique methodology of meta-ethnography and/or addressed specific issues of under-reporting identified in the audit.

Chapter 5 Stage 3: developing a consensus on the key standards for meta-ethnography reporting

Aim

The aim of stage 3 was to ascertain the consensus of meta-ethnography methodology experts and other key stakeholders on the key standards for reporting meta-ethnography in an abstract and main report or publication.

Stage 3 comprised two stages:

1. stage 3.1 – an online expert and stakeholder workshop
2. stage 3.2 – eDelphi consensus studies.

Stage 3.1: online expert and stakeholder workshop

The workshop underpinned the development of the reporting guideline and ensured that participants had up-to-date knowledge about meta-ethnography and the quality of its reporting. The workshop acted as an online equivalent to the face-to-face expert meeting recommended for reporting guideline development.[37] We extended the concept by including a broad range of stakeholders, including patients and the public, not just academic experts.

Recruitment

We recruited 77 people to the workshop: 36 academics, 29 lay people/public/patient representatives and 12 other stakeholders. Thirty-one out of the 78 participants participated in the online workshop: 12 academics, 3 other professional stakeholders, 11 lay people and 5 project team members. A number of project participants wished to, but could not, attend the workshop. Nine of these (six academics and three lay people) commented on the workshop materials and detailed notes after the workshop.

Procedure

A 3-hour online workshop was held on 12 May 2016. We interacted with all stakeholders to discuss good and best practice and to further develop the draft standards and items for the reporting guideline and discuss/agree their wording.

Process

We used an online conferencing system called Blackboard Collaborate™ version 12.6 (Blackboard Inc., Washington, DC, USA) to conduct the workshop. Blackboard Collaborate allows users to connect via audio, see each other via webcams, use a chat tool, collaborate on documents and view presentations, in addition to other features. Only presenting project team members required a webcam and had video enabled. Technical assistance was provided to participants in accessing Blackboard Collaborate, where required. We offered four online practice sessions between 28 April 2016 and 10 May 2016 using Blackboard Collaborate, as well as individual sessions, as necessary, to ensure that all participants were familiar with, and able to use, the system. In total, 24 participants took part in these practice sessions.

All participants received detailed workshop documents 1 week in advance, including the main findings from stages 1 and 2 of the project and a selection of the standards. The advance materials were longer versions of what was presented during the workshop. Participants also received a glossary of technical terms and an attendees list.

Data collection and analysis

A total of 25 minutes of presentations by two team members (EFF and IU) was followed by 80 minutes of open debate, questions, suggestions, exchanges of views and knowledge, and discussion orally and by text chat with all participants. This was followed by a 15-minute comfort break and then 1 hour examining and discussing a selection of the draft guideline standards. We explored the definition of a meta-ethnography, how close the draft standards and items were to best practice and whether or not further improvement is needed. We solicited comments on the utility of meta-ethnography reports for improving clinical practice and intervention implementation from other stakeholders. Participants had the opportunity to suggest further guideline standards and items for inclusion in the Delphi studies, identify duplicate or ambiguous standards and suggest revisions to the item wording.

Two members of the project team (EFF and IU) took notes of the workshop discussions and with participant consent we also audio-recorded the meeting and downloaded the text chat. We produced detailed notes from the workshop. These were structured by topic, drawing on the notes, listening to the recording and reading the text chat. The notes were circulated to all workshop participants and those who could not attend the workshop for comments and amendments.

The reporting standards were then revised in light of the workshop findings. We reworded, combined and added, rather than deleted, standards, because the purpose of the eDelphi (not the workshop) is to select standards for the guideline. We changed the wording of standards we had used in the audit to be suitable for a guideline (e.g. we used the imperative throughout, such as 'state', 'demonstrate'). We changed the grouping of standards so that they were grouped under common journal article section headings (e.g. introduction, methods, findings) rather than by the seven phases of meta-ethnography. We simplified or clarified ambiguous language. We added references to other published guidance (e.g. on context and literature search reporting) rather than duplicate these in our standards. Finally, we presented our revised standards to Professor George Noblit and discussed these with him during his study visit. This resulted in further refinements to the standards to clarify and improve their utility. The final list comprised 69 eDelphi items (53 of these items were regarding the content of a meta-ethnography publication, whereas 16 items were regarding potential headings and subheadings under which the content could be structured).

Stage 3.2: eDelphi consensus studies

Objectives

The objective of the eDelphi was to conduct two identical eDelphi consensus studies that would be run in parallel: one with meta-ethnography methodology expert participants and another with key stakeholders who use synthesised evidence (i.e. professional evidence users and patient and public representatives). These groups were separated as each brings specific expertise and could have potentially different views on the importance of specific items. Such differences may be lost if the samples are merged into the same consensus exercise.

We ran two separate but identical and parallel eDelphi studies: one for meta-ethnography methodology experts and one for other stakeholders. By carrying out two separate eDelphi studies, we ensured that we could differentiate between these two groups and therefore represent both groups' views, so that items of importance to both groups would be included in the final guidance. If we conducted only one Delphi study, we would have been unable to discern which type of participant made up the majority vote for any item [e.g. an overall majority (dominated by academics) may have voted against including an item, but most other stakeholders might have voted to include the item]. Having two parallel Delphi studies also let participants in each panel compare their own responses with that of their peers when deciding whether or not to revise their previous responses.

We defined consensus as any item in the eDelphi study reaching ≥ 80% agreement on it being either 'important' or 'very important'. Items reaching this level of consensus in either eDelphi study would be included in the final reporting guidance.[81,82]

Methods

Recruitment

Meta-ethnography methodology expert group

We aimed to purposively invite an international, multidisciplinary panel of 45 methodological experts in qualitative evidence synthesis and meta-ethnography via professional networks, inviting authors of key texts identified in stages 1 and 2, and using a snowballing approach by asking experts to suggest participants. Based on recruitment rates for previous Delphi studies to develop other qualitative evidence synthesis guidelines,[35,36] we anticipated a recruitment rate of 70%, giving a final sample of at least 30. We defined a meta-ethnography expert participant as someone who met at least one of the following criteria:

- an academic with a reputation in qualitative evidence synthesis including, but not limited to, meta-ethnography
- an author of a meta-ethnography or a methodological text in qualitative evidence synthesis or meta-ethnography considered by peers to be seminal.

We e-mailed potential participants to invite them to participate in the study.

Key stakeholder expert group

We aimed to purposively invite a diverse UK sample of approximately 45 key stakeholders comprising 22–23 public/patient representatives and 22–23 professional evidence users.

We defined a public/patient representative as someone who was aged ≥ 16 years and met at least one of the following criteria:

- a member of the public or a patient or informal carer with an interest in health or social care research evidence
- a lay member of a clinical guideline development and funding panel.

Potential patient and public participants were identified and invited through voluntary and patient organisations, such as the Scottish Health Council, Asthma UK and Healthwatch and Public Involvement Association, and through the project team. We did not recruit patients and the public from outside the UK, reflecting NIHR's focus on benefit to UK patients and health services.

We defined a professional evidence user as someone who met at least one of the following criteria:

- has experience of producing reporting guidelines for other qualitative evidence synthesis approaches
- has expertise in critical appraisal and evaluation of qualitative research studies
- is an editor or editorial board member of journals that publish meta-ethnographies and qualitative evidence syntheses (e.g. *Qualitative Health Research*, *Social Science and Medicine* and *Health Services Research*)
- works for a government or non-government organisation that uses synthesised evidence on health/social care, or develops or disseminates evidence-based health/social care guidance and advice
- commissions qualitative evidence syntheses
- works in a role related to the use of research evidence for health/social care policy or practice
- is a clinical guideline developer
- distils evidence for policy-makers
- is a health or social care policy-maker
- uses synthesised evidence or synthesises evidence in a professional non-academic capacity.

Potential professional evidence user participants were identified and invited through relevant organisations such as SIGN, Healthcare Improvement Scotland, NICE, the Scottish Parliamentary Information Centre, the International Guideline Network and our existing networks. We aimed to approach 60 professionals and to recruit 22–23 (an anticipated recruitment rate of around 40%).

Delphi method

The Delphi method is a group consensus-reaching method, originally developed by the RAND Corporation in the 1950s,[83] which presents questionnaires in a series of rounds, each of which is based on feedback from respondents' responses to the previous version of the questionnaire.[84] The Delphi method has been used extensively in health-care research and in guideline development.[85–87] Key advantages of the Delphi method are the anonymity of participants' responses, thereby avoiding peer group pressure to conform to the majority view, and the ability to conduct the study with a geographically dispersed panel, such as in our study.[43]

eDelphi procedure

We used a web-based platform developed at the University of Stirling by Edward AS Duncan and Kevin Swingler specifically for online Delphi studies. It had previously been piloted for acceptability and usability and successfully used in two previous separate studies.[81,82] This web-based platform has efficiency and economic advantages over standard Delphi study methods: its combination of automatic reminders, collation, analysis and feedback functions cannot be found in other generic electronic survey tools and it considerably increases efficiency by reducing the administration and manual analysis that is normally required between Delphi study rounds. Rates of study participation are comparable to paper-based administration methods.[43,82] We sought feedback from lay members of the Project Advisory Group to ensure that the eDelphi process was more accessible to those with disabilities.

The eDelphi study platform includes a recruitment and invitation process. Potential participants' e-mail addresses were entered onto the platform. They were then sent an e-mail inviting them to participate in the study. The e-mail included information on the eDelphi platform web address and a password and unique identifier to use to log in to the website. Upon logging in, each participant was required to answer some consent questions before beginning the study.

Participants could save their responses during each round, enabling them to complete the questionnaire in more than one sitting. The eDelphi platform enabled data between rounds to be presented to participants visually in the form of a colour histogram or 'heat map' (*Figure 9*), overcoming some of the known limitations of using measures of central tendency[88] when feeding back results to participants (e.g. when the median score disguises that consensus is polarised). The histogram for each item presented participants with information on their own response choice in the previous round, the frequency with which each of the four responses was chosen by the whole panel in the previous round (the depth of colour superimposed on the response scale indicates relative frequency) and the choice that they made in the current round. This enabled participants to easily compare their responses to the consensus in the previous round and to then either confirm or update their response. *Figure 9* gives an example histogram showing the frequency with which each of the four responses was chosen in a previous round (the darker the shade of green, the greater the number who selected that response; the lighter the shade of green, the fewer the number). The grey circle shows the choice that the current participant made in the previous round and the green circle shows the choice that they made in the current round (in round one, each box is white because no previous selections have been made). Different colour options for the histogram were provided, which participants could select when logged in.

FIGURE 9 An example of a colour histogram of previous responses used in eDelphi studies.

Data collection

Data collection took 12 weeks in total and comprised three rounds, each lasting 4 weeks. Having three rounds avoided excessive participant fatigue and maximised the potential to reach consensus among participants.[88] Electronic reminders were sent automatically to participants 2 weeks after the commencement of each round and also shortly before the end of the round to individuals who had not yet completed the round. These stated the final date by which the current round must be completed.

A set of 69 provisional items was presented in the first eDelphi round. Items were split in domain headings, which were accessed through separate 'tabs' to aid completion: Abstract, Introduction, Methods 1, Methods 2, Methods 3, Findings, Discussion and Headings. Participants were asked to rate how much they agreed (on a four-point Likert-type scale, where 1 = very unimportant and 4 = very important) that the item should appear in the reporting guidance (the item's importance). A four-point scale allowed us to differentiate sufficiently between items in order to identify which were the most important to include in the guidance. Participants had the option to state that they have no expertise related to any item listed. In round one, participants also had the option to add items that they considered but that were not already listed. No additional items were suggested during round one.

When participants logged in to the platform to start rounds 2 and 3, they saw the same items they rated in the previous rounds plus the items subsequently suggested by participants from round 1. They also received feedback on the previous round, namely in relation to the relative frequency of responses for each item, and their own responses.

Analysis

Inter-round data analysis was completed automatically by the platform's algorithm and automatically fed back to participants during subsequent rounds in the form of colour histograms. Following completion of round 3, the final round, descriptive statistics of the ordinal data (frequencies/percentage of responses) for both eDelphi studies were calculated showing the level of consensus for each study item. Items were included in the guidance if they reached consensus as being an item that was deemed important[15] or very important[53] in either eDelphi group.

Ethics approval

Ethics approval for the eDelphi study was granted by the University of Stirling's School of Health Sciences Research Ethics Committee on 27 July 2015.

Results

We invited 71 potential meta-ethnography expert participants to take part in the study. A total of 48 individuals completed round 1 and 28 individuals completed three rounds of the study.

We invited 48 other potential key stakeholder expert participants to take part in the study. A total of 39 individuals completed round one and 23 individuals completed three rounds of the study.

Summary of results

The vast majority (62/69) of items reached consensus (≥ 80% agreement that an item was important or very important) in both groups. Seven items did not reach consensus for inclusion in the meta-ethnography expert group:

1. Abstract – while acknowledging publication requirements and house style, the abstract should ideally differentiate between reported findings of the primary studies and of the synthesis.
2. Introduction – state the context of the synthesis (e.g. any funding sources for the synthesis, time scales for the synthesis conduct, political, cultural, social, policy or other relevant contexts) and refer to existing frameworks for guidance on how to specify the review context.
3. Introduction – describe the availability of qualitative data that could potentially be synthesised [e.g. from an exploratory scoping of literature (if done)].

4. Method – translation and synthesis processes. State the order in which studies were translated/synthesised (e.g. chronologically from the earliest or most recent) and the rationale for this.
5. Method – data extraction methods and process. State in which order primary study accounts had data extracted from them (e.g. chronological or starting with an 'index' paper) and the rationale for that order.
6. Method – state why meta-ethnography was considered the most appropriate qualitative synthesis approach and whether or not the use of other approaches was considered.
7. Discussion – state the qualitative research expertise of reviewers. Depending on publication requirements, this information could be provided in a different section (e.g. the 'Author contributions' section).

Four items did not reach consensus for inclusion in the key stakeholder expert group:

1. Abstract – while acknowledging publication requirements and house style, the abstract should ideally differentiate between reported findings of the primary studies and of the synthesis.
2. Method – translation and synthesis processes. State the order in which studies were translated/synthesised (e.g. chronologically from the earliest or most recent) and the rationale for this.
3. Method – data extraction methods and process. State in which order primary study accounts had data extracted from them (e.g. chronological or starting with an 'index' paper) and the rationale for that order.
4. Discussion – state the qualitative research expertise of reviewers. Depending on publication requirements, this information could be provided in a different section (e.g. the 'Author contributions' section).

All four items that did not reach consensus in the key stakeholder expert group also did not reach consensus in the meta-ethnography expert group. Therefore, these items were not included in our final guidance. *Appendix 8, Table 16* presents full details of the item responses from both eDelphi studies following round three.

Conclusion

The eDelphi process provided a rigorous method of identifying reporting items that were viewed as important or very important for inclusion in the eMERGe reporting guidance. The rigour of the development of the reporting standards earlier in the project (see *Chapters 3* and *4*) resulted in almost all of the items in both eDelphi panels reaching consensus for inclusion. This necessitated the study team to consider how items could be meaningfully merged and presented in a usable format for end-users. This process is described in *Chapter 6*.

Chapter 6 Guidance development process

Stage 4 of the project involved developing the guidance table and explanatory notes, developing the training materials and organising the dissemination of the guidance.

We followed an iterative process to develop the final guidance table and explanatory notes.[39–42] An overview of the process followed to write up the guidance table is given in *Figure 10*. Although Moher *et al.*[37] provide a brief overview of the guidance development process post consensus study, there is a dearth of literature describing the detail of developing usable guidance from Delphi items. This process was particularly important in eMERGe, because so few items did not reach consensus in the Delphi studies and we realised that we had too many items to form usable guidance in their eDelphi format. Therefore, we decided, as a team, to provide a detailed account here of the process we followed to develop the guidance table and explanatory notes from the Delphi items.

Project Advisory Group meeting structure

A Project Advisory Group meeting was held in November 2016. A total of 27 people attended the meeting: nine members of the eMERGe project team, one external chairperson for the meeting, seven lay advisors and 10 academic/expert advisors. The purpose of the meeting was to update the Project Advisory Group on the project's progress, including the results of the audit and eDelphi studies, and to gain its opinion and feedback on the structure of the guidance and next steps in guidance development.

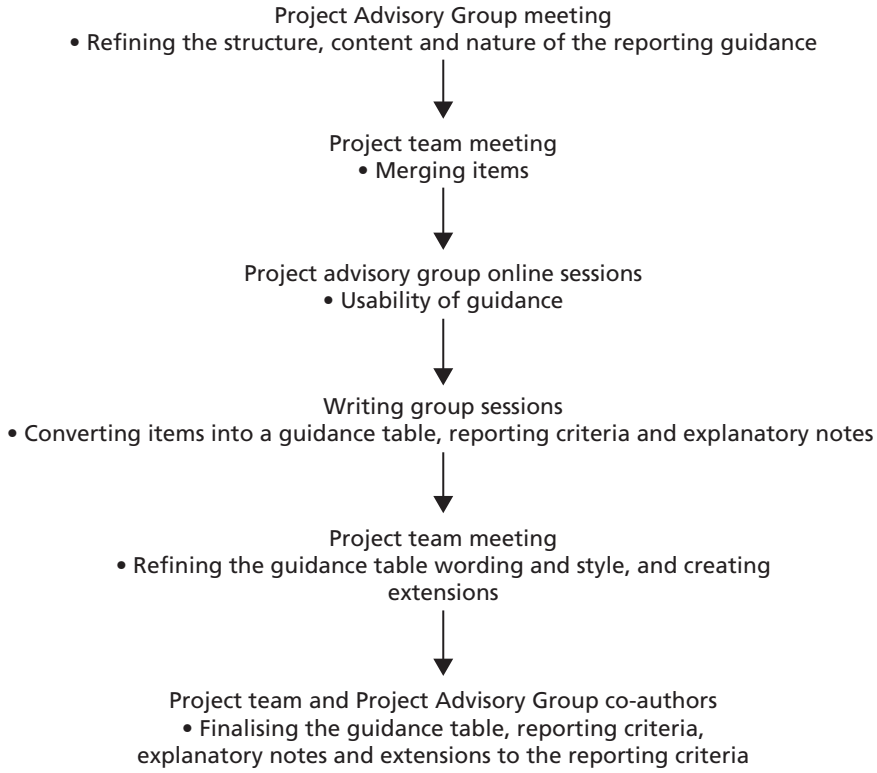


FIGURE 10 Guidance development process post Delphi.

Following presentations on the audit and Delphi studies, Project Advisory Group members discussed and agreed the following points:

- Given the initial results of the audit, there was a strong feeling that meta-ethnography authors, peer reviewers and journal editors would all benefit from guidance on meta-ethnography reporting.
- When developing the guidance table, there is a need to be pragmatic and realistic about the number of items that can be put into a guidance table for reporting. There was general agreement that, if the guidance included too many items, it was unlikely that they would be used.
- The guidance table should be written in such a way that the high-level guidance is relevant to a number of types of user (e.g. a meta-ethnography author, a peer reviewer or an editor of a journal) and is also relevant across clinical and social science disciplines.
- The guidance table should reflect what is key to good reporting, with suggestions of how this can be achieved described in the explanatory notes.
- Some Delphi items were ambiguous and would need to be reworded, split or merged.

Workshop sessions were held to discuss the structure of the reporting guidance. Project Advisory Group members discussed and gave feedback on the following questions:

- How do we group Delphi items into meaningful categories in reporting guidance?
  There was general agreement that it would be useful to structure the reporting guidance around the phases of meta-ethnography. Project Advisory Group members felt that structuring the guidance by phases honours the tradition of meta-ethnography and does not force it into another paradigm (e.g. that of systematic reviews or journal article structure). It was suggested that providing the guidance structured into the phases of meta-ethnography could be a useful teaching aid for the conduct and reporting of meta-ethnography, and could minimise the risk of poor reporting of later phases of meta-ethnography, which is especially problematic. The Project Advisory Group suggested that journal formatting could be provided as subheadings within each phase.
  Context was discussed as being relevant to several different phases of meta-ethnography, for example the appropriateness of a sample in the context of the research questions. The context of included studies was considered when conducting the translation and synthesis.
- What is the minimum requirement to be classified as a meta-ethnography?
  There was consensus in the group that meta-ethnography is both a product and a process. Workshop attendees felt that the guidance should reflect underlying principles of meta-ethnography as a cyclical iterative process. The Project Advisory Group agreed that the underlying principle of whether or not a study is a meta-ethnography is whether the seven stages of meta-ethnography are recognisable in the reporting.
  There was general agreement that meta-ethnography needs to produce something new, something beyond that which was there before, from the synthesis of primary qualitative data. Suggestions for 'something new' included third-order constructs, LOA, new interpretation or a new model. There was agreement that 'new' should not be narrowly interpreted, and that further work is needed to define 'new' in the context of the product of meta-ethnography.
- Do we need essential and desirable reporting items, for example in phase 6 (synthesising translation), and what would they be?
  No agreement was reached about whether or not there should be essential and desirable reporting items in the guidance. Some attendees felt that the guidance should clarify what must be included in meta-ethnography reporting, and what would be useful to include if there is space in the paper. Others felt that the guidance should contain overarching principles for meta-ethnography reporting, with more detailed notes on what authors might do to meet these principles.
- Do we need separate meta-ethnography reporting guidance or an extension to existing reporting guidelines (and, if so, to which guideline)?
  There was agreement among workshop attendees that the guidance should stand alone, rather than as an extension to existing guidelines for qualitative synthesis. It was felt that there may be confusion

for users as to where the meta-ethnography guidance maps to existing standards, if the guidance was developed as an extension to, for example ENTREQ[34] or PRISMA.[32]

- What should be included in the explanatory notes?
  There was discussion about the use of exemplars to illustrate good reporting practice. Some attendees felt that exemplars could be valuable; however, others were concerned that exemplars would become 'the new set of words people use' and may endorse one particular way of doing things over other ways. The Project Advisory Group suggested providing exemplars as part of the training resources on the website, rather than in the reporting guidance paper.

Following these extensive discussions at the Project Advisory Group meeting, the project team agreed that:

- The guidance would be standalone rather than an extension to existing guidelines.
- There would be two levels of guidance – (1) essential and (2) desirable.
- The guidance would be structured in eight phases: phase 0, which was introduced by the project team following stage 1 of the eMERGe project, and Noblit and Hare's[25] seven phases of meta-ethnography.
- A study is not a meta-ethnography unless the specific phases are followed. The study must also use qualitative primary data. It must also come up with something new, although the definition of what constitutes something new is very broad.
- We would hold two online conferencing sessions with the Project Advisory Group to seek feedback on further iterations of the draft guidance. These had not originally been planned in the study protocol; however, we decided to introduce these sessions to give us further essential feedback on the guidance.

As a result of the discussion and decisions made at the meeting and workshops, the items were restructured into the seven phases of meta-ethnography plus phase 0. A small writing group was formed as a subgroup of the main project team, consisting of five members (MC, EASD, NR, IU and RJR). This writing group discussed each of the items and agreed whether they were essential or desirable for meta-ethnography reporting. Essential items were highlighted in the guidance document. No other changes were made to the wording or content of the items at this time.

Project team meeting: merging items

The project team held a meeting in January 2017 to review the new structure of the guidance, agree the selection of essential items and discuss which items could be merged to reduce the reporting criteria to a manageable number. The project team agreed that items that were related should be merged to form larger items. The project team also agreed that merging items did not mean losing any content, just avoiding repeats and cutting wording.

Items that had been included in the new phase 0 were merged into items in phase 1. As the rationale for using meta-ethnography instead of other qualitative evidence synthesis methods was now contained in phase 1, it was decided that the guidance should not have a phase 0 and should revert back to Noblit and Hare's[25] original seven phases of meta-ethnography. Phase 1 was renamed 'Selecting meta-ethnography and getting started', to reflect the importance of reporting why meta-ethnography was chosen as the appropriate qualitative evidence synthesis approach.

The team discussed the role of context in the guidance. The team agreed that there was a need to be explicit on what is meant by context in a meta-ethnography. The critical importance of context in meta-ethnography was identified across all stages of the study (e.g. the audit results indicated that context of studies is not well reported in meta-ethnographies at present). Several contextual factors should be considered when reporting a meta-ethnography, including the context of the review question and the context of primary studies. Context is essential in order to interpret the meta-ethnography for use in policy and practice.

As a result of the decisions made at the project team meeting, the guidance was structured into seven phases and the number of reporting items was reduced from 49 to 27.

Project Advisory Group online sessions: usability

We held two online conferencing sessions with Project Advisory Group members in February 2017. Prior to the sessions, all members were sent copies of the guidance, with the 27 items structured in the seven phases. Six members attended the online sessions and a further three members sent written feedback on the draft guidance. Feedback from the Project Advisory Group members primarily focused on the usability of the guidance, with key points including:

- consistent level of detail in the guidance table, with further detail to be supplied in the explanatory notes
- importance of explaining how context should be considered in different phases in the guidance
- make changes to item ordering so that guidance follows a logical progression (while recognising that meta-ethnography is an iterative process)
- present the guidance in such a way that there are clear criteria covering the process to be reported, without being too prescriptive about how these are reported
- reduce number of items
- increase clarity for some of the items – what exactly does the reviewer need to report?
- importance of highlighting iterative nature of meta-ethnography
- abstract does not fit within the meta-ethnography phases and should, therefore, stand alone, not as part of guidance table.

The members who attended the online sessions also discussed whether or not it was appropriate to highlight essential and desirable items. The group agreed that this was less of an issue now that there were fewer items, and that the focus should be on reporting information for all the criteria in the guidance table.

There was some discussion about the use of exemplars in the explanatory notes. We had originally planned to include examples of good reporting from published articles in the explanatory notes. However, concern was raised during the sessions that providing exemplars would lead to verbatim reporting in a particular way, rather than encouraging creativity in how reviewers report meta-ethnography findings. There was a strong feeling that providing exemplars may be too prescriptive.

Writing group: guidance refinement

Following the online sessions, two members of the project writing group (MC and NR) restructured the guidance table, bearing in mind all the feedback from the Project Advisory Group. We merged further items and then carefully extracted the content into two levels of reporting: (1) a high-level summary of the reporting criteria for the guidance table and the detailed explanatory notes that provided additional clarification and (2) guidance that could not be provided in the summary guidance table. We structured the items within the phases under subheadings based on the journal article section the information would best fit into. In particular, we drew a distinction between reporting process and results of the different phases of meta-ethnography: clarifying what information should be provided in each phase about what was done (methods) and what was found (results). As a result of this restructuring, the number of items in the guidance reduced from 27 to 21.

A third member of the writing group (IU) then checked the reporting criteria and explanatory notes against the items that had reached consensus in the Delphi studies to (1) check that no item had been missed from the rewriting process and (2) identify if any further detail had been added to the guidance. Extra detail had been added to the explanatory notes in 16 places and in each case the writing team identified where the additional information had come from (e.g. item 10, phase 3, 'Describe characteristics of the included studies') – further information was added to the explanatory notes from the online conferencing

sessions about clarifying the availability of contextual information in the primary studies: 'If such contextual information is not available in the original papers, review authors should make this clear in their report to readers (e.g. as footnote).' Additional detail had been added to the explanatory notes from the Project Advisory Group meeting, the project team meeting [including discussion with Professor George Noblit during his visit to the eMERGe project (June 2016)], online discussions and from the audit findings.

Following this, we sent a copy of the draft guidance to the seven Project Advisory Group lay members, specifically asking for their feedback on readability, clarity and asking them to identify words they thought that we should define in a glossary on the website. This step was carried out to ensure that the guidance and explanatory notes would be understandable and usable for a wide audience, and to supplement the training material to be provided on the project website. Five lay members responded with comments and glossary suggestions. The feedback from lay members was very positive and they all commented on the clarity and readability of the guidance:

> *. . . I was delighted to find how well you had educated us during this process and felt overall that if I were a young researcher in the field, approaching a new piece of work, I would have been able to find structure and clarity in these guidelines . . .*
>
> *Project Advisory Group lay member, March 2017*

Project team meeting: wording, style and extensions

The project team held a meeting in March 2017 to review the draft guidance. The project team decided to create three extensions to the guidance for reporting steps and processes that are not common to every meta-ethnography. The three extensions cover (1) format and content of the meta-ethnography outputs (e.g. title, abstract and keywords), (2) assessment of methodological strengths and limitations of included primary studies (e.g. quality appraisal) and (3) assessment of confidence in synthesised qualitative findings using Grading of Recommendations Assessment, Development and Evaluation (GRADE) CERQual.[14,38]

The team agreed consistent wording for the guidance (e.g. that the person doing a meta-ethnography should be called a 'reviewer' in the guidance).

The team agreed to merge the items on reflexivity to create one item that considered the internal and external context and methodological aspects of the synthesis.

There was discussion about the use of exemplars in the explanatory notes – we had received mixed feedback during the Project Advisory Group meeting and online sessions about the use of exemplars. Although exemplars can help to illustrate a point, there was feeling among some members of the Project Advisory Group and members of the project team that there are a number of ways the guidance can be met, and we did not want to be too prescriptive about how people provide information, so long as they do provide the content to meet the guidance. It was felt that providing exemplars in the explanatory notes to the guidance table may inevitably lead to new meta-ethnography reviewers copying existing formats for reporting, rather than developing their own creative ways to meet the reporting criteria. The project team noted that a further issue with exemplars had been identified during the audit. It was clear from the audit results that, although one paper may be an exemplar for reporting a particular phase of meta-ethnography, it may not be a good exemplar for reporting the other phases. The project team was concerned that if we highlighted a paper as a specific exemplar of good reporting for one phase, over time, this distinction could be lost and the paper could be considered an overall example of good reporting when this was not the case. The team agreed to follow the Project Advisory Group's previous suggestion and place exemplars on the project website as part of the training materials, rather than including exemplars in the reporting guidance document.

Guidance writing: final processes

One team member (MC) removed detail from the guidance table and explanatory notes that related to the new extensions and merged the reflexivity items. Therefore, the number of items in the final guidance reduced from 21 to 19.

Changes to style and wording were made in line with the project team meeting decisions.

One member of the project team (IU) generated a list of notes from stage 1 (systematic review) and stage 2 (audit) findings relevant to each of the final 19 guidance items. Another team member (MC) checked the explanatory notes for each item against the notes from stage 1 and stage 2 and added detail, where appropriate, about the justification for each item from the literature. A final check was then conducted by one researcher (IU) of the detailed explanatory notes against the stage 3 Delphi items that met consensus, to ensure that the meaning of each item retained fidelity to the Delphi items. We felt that conducting these checks against each of the previous stages of the project was important to (1) ensure that we remained faithful to the consensus achieved in the eDelphi studies and (2) reduce the risk of bias acquired through being immersed in meta-ethnography reporting over a 2-year period and, as a result, developing our own expertise and opinions about meta-ethnography.

The first two extensions, (1) 'Format and content of the meta-ethnography outputs' and (2) 'Assessment of methodological strengths and limitations of included primary studies', were written from the points removed from the guidance table and explanatory notes. The third extension, 'Assessment of confidence in synthesised qualitative findings using GRADE CERQual', was written by a member of the project team (JN) who was involved in developing CERQual in collaboration with the other CERQual originators. This extension was considered essential because we wanted to link the eMERGe reporting guidance with other developments in the field.

The final guidance table, explanatory notes and extensions were sent out to the project team and Project Advisory Group members who qualified for authorship for final feedback.

Two significant changes were made to the guidance tables and explanatory notes as a result of feedback:

1. It was felt that the explanatory notes for reporting criterion 6, phase 2, 'Searching processes – Describe how the literature searching was carried out and by whom', were not sufficiently comprehensive. The process for identifying meta-ethnography-specific reporting principles had not been designed to generate guidance on the detail of conducting a literature search. A decision was made by the project team to cross-reference to existing published guidance on searching for qualitative evidence, recommending that reviewers 'follow an appropriate guideline for reporting qualitative literature searches (e.g. STARLITE'[89]).
2. It was felt that reporting criterion 18, phase 7, which had been named 'Reflexivity', also covered the strengths and limitations of the meta-ethnography process. The project team decided to rename reporting criterion 18, 'Strengths, Limitations and Reflexivity', to better represent the type of issues that needed to be considered by those writing meta-ethnography reports.

The final guidance table is provided in *Appendix 9*. We also developed detailed explanatory notes and extensions to accompany the guidance table; these are available in the full published reporting guidance as an open access journal article.[39–42]

Training materials

The project team decided to create a range of online training materials to support the project output, hosted on the project website. We decided to produce online material rather than a one-off real-world seminar, as this offered greater potential for dissemination and online content would be more accessible to

users. We produced a range of training materials to ensure that the material was useful to a wider range of viewers, for example students, lay people, end-users and academics. The training materials include:

- a glossary of terms, defining specialist words identified by Project Advisory Group lay members
- exemplars for each of the reporting criteria in the guidance table
- four films following a junior researcher on her journey to understand more about meta-ethnography and reporting meta-ethnography –
  - meta-ethnography then and now with Professor George Noblit
  - the eMERGe project – development of the reporting guidance with Dr Emma France
  - the eMERGe reporting guidance – the wider policy and practice context with Professor Jane Noyes
  - the eMERGe reporting guidance – format, content and use with Dr Nicola Ring.

The project team held a webinar in May 2017: 'Introducing the New Meta-ethnography Reporting Guidance – what it is and how to use it'. This free, 1-hour webinar gave an overview of why the reporting guidance is needed, what format the guidance takes and how to use the guidance, and gave attendees the opportunity to ask questions. Fifty people from around the world attended the webinar. Attendees included PhD students and academics. A full list of the training resources developed by the project team is available in *Appendix 10*. A recording of the webinar and copy of the associated slides is also available on the eMERGe project website (www.emergeproject.org/resources; accessed 26 March 2018).

Chapter 7 Discussion

In the eMERGe project, we have produced guidance, explanatory notes[39–42] and training materials for reporting meta-ethnographies. The intention of producing this guidance is to increase the transparency and completeness of reporting, to enable stakeholders to assess the credibility of meta-ethnography findings and to increase the usability of meta-ethnography findings to influence policy and practice. We have followed methods recommended by Moher *et al.*[37] for good practice in developing reporting guidelines. The process of guidance development has included four stages: stage 1 (see *Chapter 3*) – a systematic literature review of methodological recommendations and guidance for conducting and reporting meta-ethnography; stage 2 (see *Chapter 4*) – an analysis of published meta-ethnographies and end-user interviews on the utility of published meta-ethnographies; stage 3 (see *Chapter 5*) – eDelphi consensus studies; and stage 4 (see *Chapter 6*) – a consultative process to write the final guidance and explanatory notes. The guidance was developed with the help and support of an international Project Advisory Group of key stakeholders – including one of the founders of meta-ethnography, Professor George Noblit – who were involved in all aspects of the project.

The guidance is not intended to be prescriptive about how reviewers should conduct a meta-ethnography. The project team and wider Project Advisory Group recognise that there are a number of creative ways to conduct and report the different phases of meta-ethnography. Instead, the guidance is intended to encourage reviewers to give a clear and detailed account of the process they followed. Definitions and requirements within the guidance have not been imposed arbitrarily, unnecessarily or where consensus is lacking.

The discussion offers some reflections on both the processes and lessons learnt during the eMERGe project. It covers public and patient involvement, evolution of our understanding of meta-ethnography methodology, the wider context of meta-ethnography, changes to the protocol, limitations and what next after eMERGe.

Public and patient involvement

A range of key stakeholders are potential beneficiaries of the eMERGe project, in addition to patients, the public and their representatives. We formed a Project Advisory Group comprising academics, policy experts, meta-ethnography end-users, students, patients and members of the public to inform and advise on key aspects of the project design and analysis.

The Project Advisory Group's input was critical to various stages of the project including:

- Stage 2 (see *Chapter 4*) – expert academics from the Project Advisory Group recommended meta-ethnography journal articles that they judged to be seminal, and those that they considered to be relatively poorly reported. It was important to have input from the wider Project Advisory Group to identify seminal and poorly reported journal articles, to minimise any potential bias from the project team.
- Stage 3 (see *Chapter 5*) – lay members of the Project Advisory Group helped to develop participant information resources for the eDelphi consensus studies. Members of the Project Advisory Group helped to identify potential participants for the eDelphi consensus studies.
- Stage 4 (see *Chapter 6*) – the Project Advisory Group played a key role in helping to refine the guidance and explanatory notes from the items that had reached consensus in the eDelphi studies. In particular, members of the Project Advisory Group gave valuable feedback on the structure, content and nature of the reporting guidance, the usability of the guidance, and critically commented on the final guidance table and explanatory notes. Lay members of the Project Advisory Group identified terms that required explanation in the Glossary, which forms part of the project training resources.

The involvement of the Project Advisory Group has ensured that the reporting guidance does not just reflect the opinions of the project team or simply the views of experts, but instead includes issues of importance to, and is in a format that is usable by, all stakeholders. The team believes that the guidance is unusual among current reporting guidance in the extent to which it has involved lay people in all aspects of the study.

One lay member of the Project Advisory Group gave the following account of his involvement in eMERGe:

> *The proposed guidelines for meta-ethnography are designed to help both academics and students. I was asked to assist the project as a lay member of the advisory group upon starting my master's at the University of Stirling. My primary concern was to ensure that the guidelines were accessible to a variety of audiences so that they could be utilised by all individuals from university professors to students or patients themselves.*
>
> *I thoroughly enjoyed the opportunity to work alongside academics on an equal footing. As a young researcher this proved invaluable as I was able to learn from the experts which enabled me to gain an enhanced understanding of qualitative methodology and a practical understanding of applying the techniques associated with meta-ethnography. This has placed me in a stronger position when preparing to give a presentation during interviews, at work or in an academic setting during which I'd need to explain my rationale for selecting certain outcome measures.*
>
> *It is important to note that sometimes during discussion of the minutiae of meta-ethnography lay individuals were unable to comment due to their lack of knowledge of meta-ethnography or on theoretical debates within the field. However, this example led to the adoption of a glossary of terms and the guidelines being split up to reflect each stage of the method. This perhaps would not have happened had lay individuals not been involved in the project as during research we can become focussed on the minute details rather than the 'big picture'.*
>
> *As well as contributing to the Project Advisory Group at meetings I also was required to provide comments on study documents, processes and the final paper itself. This meant in practice that I was able to ensure that changes were made to the patient consent form and information sheet so that the language was not ambiguous so that participants in the study were able to understand clearly their responsibility through use of plain language. Overall, the contribution of lay members of the Project Advisory Group helped assist the project team in delivering a set of guidelines which are easy to understand and in plain language hence ensuring they can be used by all who require them.*
>
> *Ian Gallagher, lay member of the Project Advisory Group, May 2017*

The Project Advisory Group stayed actively involved throughout the 2 years of the eMERGe project. Factors that we believe helped to maintain involvement included holding two face-to-face day-long workshops, regular e-mail communication with the group, online workshops at key stages of the project, focusing requests for help or feedback to particular group members at particular stages of the project and giving members the option of attending meetings by Skype™ (Microsoft Corporation, Redmond, WA, USA) or giving written feedback. We offered lay members payment for their participation in specific parts of the project, in line with good practice (www.invo.org.uk; accessed 26 March 2018). The contributions of the Project Advisory Group members were invaluable and are fully recognised in the *Acknowledgements*.

Evolution of our understanding of meta-ethnography methodology

Throughout this project, the development of the guidance has shown that over the nearly three decades since its inception, the meta-ethnography approach has evolved and has become a very popular form of qualitative evidence synthesis in health and social care research. However, there remains some debate over what makes meta-ethnography a unique type of qualitative evidence synthesis. The Project Advisory Group and project team felt that to qualify as a meta-ethnography, this type of review needed to have undertaken Noblit and

Hare's[25] seven phases of meta-ethnography and should have used the translation process to arrive at a new interpretive model or theory (although there is a lack of consensus on what constitutes something 'new').

Despite the significant methodological contributions some seminal texts have made to its methodological development, both in terms of conduct and reporting,[11,24,49] the more analytical phases of the meta-ethnography approach have remained, on the whole, poorly conducted and reported. The guidance produced by the eMERGe project will be key in improving the quality of the reporting of meta-ethnographies. This project has asserted, for instance, that refutational and reciprocal translations are not mutually exclusive and can be undertaken in parallel. In fact, refutational translation, which can happen at the level of concepts within studies or across studies as a whole, is to be encouraged, as it is seldom carried out.

As a whole, the methodological review and the audit of meta-ethnographies conducted at various phases of the project have also demonstrated that the time has come to reflect on the nature of the translation and synthesis processes in meta-ethnography. Many of the meta-ethnographic reviews published to date have often only rehashed the reciprocal concepts and metaphors used in the primary studies. If meta-ethnographies are to produce novel and usable theories, they require a more engaged process of synthesis and translation. This process needs to take full account of the 'storylines' and contexts of the primary studies and of the review itself.

Wider context of meta-ethnography

Although meta-ethnography is a commonly used qualitative evidence synthesis methodology, it remains uncommon to use findings from a meta-ethnography in an evidence-to-decision process used by guideline development panels. The reasons for this are multiple and some of the main issues are summarised in the following paragraphs.

At present, the Cochrane Qualitative and Implementation Methods Group (http://methods.cochrane.org/qi/registering-titles-and-developing-protocols; accessed 26 March 2018) lists meta-ethnography as having substantial outstanding methodological issues that may not satisfy requirements for an audit trail and it is unclear how findings translate into actionable points. The eMERGe reporting guidance will help to address the lack of transparent reporting. Nonetheless, meta-ethnography is one of the most complex qualitative evidence synthesis methodologies of the 30 or so available options. Commissioned review teams often opt for a simple aggregative qualitative evidence synthesis methodology to summarise findings across studies organised by themes to deliver the review within the specified timeframe. The INTEGRATE-HTA guidance[90] on choice of qualitative evidence synthesis methods provides additional pointers to consider when selecting a methodology.

Commissioned qualitative evidence syntheses for a decision-making context also commonly require the production of an a priori protocol agreed with the funder. It may not be clear that undertaking a meta-ethnography is possible or desirable until the pool of available evidence is known. As a consequence, review teams may opt to use one of the most easily applicable qualitative evidence synthesis methodologies that can be applied to any type of qualitative evidence.

For meta-ethnography to be used more commonly, commissioners of reviews that are designed to inform decision-making need to take a more flexible approach to iterative protocol development. More flexibility will create the context within which it is possible to undertake a meta-ethnography as the most appropriate methodology when the pool of potential evidence becomes known.

Decision-makers increasingly ask complex questions about complex health system interventions. Meta-ethnography may have particular value over other qualitative evidence synthesis approaches when addressing questions about complex interventions and complexity.[90] Meta-ethnography is designed to develop theory and involves the interpretation of evidence in combination with review author and

expert experiential interpretations. Thus far, the development of theory has not always been done well or transparently reported, which will hopefully be improved by the implementation of the eMERGe reporting guidance.

Changes to protocol

We made the following changes to the protocol during the study.

Stage 1

We had intended to independently double-screen all the retrieved references by title and abstract. The search output was sensitive but not specific for our purpose, which meant that we retrieved a very large number of references. Therefore, we decided not to independently double-screen references published prior to the year 2006 to enable us to meet our aims and project timelines. The pre-2006 references that referred to qualitative evidence synthesis had been superseded and the majority of relevant papers about meta-ethnography published prior to 2006 were already known to the project team. However, as a precaution, titles and abstracts of references from 2005 and earlier were electronically searched for key terms (e.g. 'ethnograph', 'Noblit') to identify any referring to meta-ethnography; these references were then screened by title and abstract by one reviewer. We also used expansive searches and approached experts to identify other relevant publications not identified through the database searches.

Stage 2

We made changes to the research questions. The original research question for stage 2 was:

- What good practice principles and standards in meta-ethnography conduct and reporting can we identify from published meta-ethnographies to inform recommendations and guidance?

The revised research questions for stage 2 were:

- What good practice principles can we identify in meta-ethnography conduct and reporting to inform recommendations and guidance?
- From the good practice principles, what standards can we develop in meta-ethnography conduct and reporting to inform recommendations and guidance?

We informed NIHR of the amended research questions and had these approved.

Stage 2.1

We conducted 14 semistructured interviews with professional end-users of evidence syntheses rather than the 10 we had planned in order to include feedback from a wider range of stakeholder organisations.

Analysis of seminal/low-quality meta-ethnographies, including interviews with professionals, and the development of the draft standards, happened in parallel rather than sequentially; this did not affect the quality of the analysis or standard development and allowed us to meet the project schedule.

To analyse seminal/lower-quality meta-ethnographies, we had planned to have three reviewers independently code the same two meta-ethnographies, but this was unnecessary to achieve rigour. Instead, three reviewers shared the coding and discussed and verified the analysis. We focused coding and analysis efforts on the complex analytic synthesis and expressing synthesis phases 4–7, rather than all seven phases of a meta-ethnography to achieve depth of insight within time constraints.

Stage 2.2

We had intended to include a diverse sample of 40 meta-ethnographies in the audit and we selected a purposive sample of 40 meta-ethnographies that met our inclusion criteria for this purpose. However, when

the full texts of these papers were read, 21 of the publications were not recognisably meta-ethnographies. The project team discussed how to handle these papers and reached the decision to remove them from the audit. Project time scales meant that we could not conduct further sampling, and so the audit had a final sample of 19 papers.

Limitations

The project has been completed rigorously and in line with our published protocol.[43] Despite this, as with all studies, there are some limitations that should be considered when evaluating the project outputs. The content of the guidance was developed from an analysis of published theories (stage 1, *Chapter 3*) and meta-ethnographies (stage 2, *Chapter 4*) followed by a structured consensus process to agree the final good practice and reporting criteria (stage 3, *Chapter 5*). However, we have not evaluated the finalised guidance in practice so cannot objectively comment on its utility. However, we have sought feedback on the guidance and reporting criteria through both the Project Advisory Group and an online training webinar attended by more than 40 people, in which the guidance and related study outputs were well received.

Consensus methods are frequently used in guideline development. Although consensus methods, such as the Delphi method, are relatively poorly described and open to interpretation, the methodological process of moving from a list of agreed statements (a common output of the Delphi method) to a workable guidance document with explanatory notes is largely ignored in the literature. This aspect of the method had not been fully considered in our application and was not described in the study protocol. The study team gave considerable thought as to how this step in the study method could be achieved in a transparent and rigorous manner. Consequently, the final stage of the project took longer than anticipated.

The project team is aware that meta-ethnography is an evolving research approach. The process of undertaking the project brought together many individuals with extensive experience in meta-ethnography and qualitative synthesis more generally. We recognise that thinking regarding meta-ethnography evolved during the lifetime of the project, yet some of these most recent conceptual developments are not reflected in the guidance and other study outputs, as these were largely developed from existing publications. Consequently, our guidance and outputs reflect a high-quality evaluation of meta-ethnography practice, but will not be the final word in its methodological development.

What next after eMERGe?

The first key task will be to further disseminate the guidance to promote uptake. Having registered an intent to develop the eMERGe guidance in December 2013 with the EQUATOR network (Enhancing the QUAlity and Transparency Of health Research: www.equator-network.org; accessed 26 March 2018), we will forward the guidance to be included in its searchable database. EQUATOR is a global resource that serves as a distribution hub for reporting guidelines. Following publication of the guidance in key journals, we will contact the editors-in-chief of all health- and social care-related journals and share a copy of the guidance and encourage journals to incorporate eMERGe into the instructions for authors and reviewers. Training materials and webinars will be available on the eMERGe project website (www.emergeproject.org; accessed 26 March 2018).

The second key task will be to monitor uptake and to determine if and how the eMERGe guidance[39–42] has impacted on the quality of meta-ethnography reporting. We will do this by updating our systematic review on 'what is wrong with meta-ethnography reporting'[29] in 2–3 years' time, when the guidance has had sufficient time to potentially influence reporting. We will also periodically horizon-scan and ask authors and decision-makers to contact us, to determine when a meta-ethnography has been included in a clinical or other type of guideline or policy document. We will then look to see whether or not it is apparent that the eMERGe guidance was followed in the cited meta-ethnography.

Chapter 8 Conclusion

In conclusion, meta-ethnography is a complex and commonly used method of qualitative evidence synthesis. Previous research has identified that the quality of reporting of published meta-ethnographies is often poor[17,24,29,46] and this has limited the utility of meta-ethnography findings to influence policy and practice. The eMERGe reporting guidance has been developed following a thorough and recommended approach, and is intended to improve the quality and completeness of meta-ethnography reporting. The project team has developed detailed explanatory notes and training materials to support the use of the reporting guidance. Meta-ethnography is an evolving qualitative evidence synthesis methodology with huge potential to contribute evidence for policy and practice. In future, changes to the guidance might be required to encompass methodological advances and to accommodate changes identified after evaluation of the impact of the guidance.

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Contributions of authors

All authors collaborated in the design, data gathering, critical analysis and interpretation throughout their involvement in the study.

Maggie Cunningham (Senior Research Fellow, Health Services Research) led stage 4, led manuscript writing and editing, and approved the final version of the manuscript to be published.

Emma F France (Senior Lecturer, Qualitative Research) was principal investigator of the project (1 June 2015 to 5 August 2016), a grant applicant, led stages 1, 2 and 3.1, contributed to manuscript writing and approved the final version of the manuscript to be published.

Nicola Ring (Associate Professor, Child Health Nursing) was a grant applicant, led stage 2.2 of the study, led development of the training materials (stage 4), contributed to manuscript writing and approved the final version of the manuscript to be published.

Isabelle Uny (Research Fellow, Qualitative Health Research) managed stage 1, contributed to manuscript writing and approved the final version of the manuscript to be published.

Edward AS Duncan (Associate Professor, Applied Health Research) was principal investigator of the project (5 August 2016 to 14 June 2017), a grant applicant, led stage 3.2, contributed to manuscript writing and approved the final version of the manuscript to be published.

Rachel J Roberts (Research Fellow, Qualitative Research) managed stage 2.1, contributed to manuscript writing and approved the final version of the manuscript to be published.

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Margaret Maxwell (Professor, Health Services and Mental Health Research) was a grant applicant and approved the final version of the manuscript to be published.

Ruth L Turley (Research Fellow, Systematic Review Research) was a grant applicant and approved the final version of the manuscript to be published.

Jane Noyes (Professor, Health and Social Services Research) was a grant applicant, contributed to manuscript writing and approved the final version of the manuscript to be published.

Publications

France EF, Ring N, Noyes J, Maxwell M, Jepson R, Duncan E, *et al.* Protocol-developing meta-ethnography reporting guidelines (eMERGe). *BMC Med Res Methodol* 2015;**15**:103.

Uny I, France EF, Noblit GW. Steady and delayed: explaining the different development of meta-ethnography in health care and education. *Ethnogr Educ* 2017;**12**:243–57.

France EF, Cunningham M, Ring N, Uny I, Duncan EAS, Jepson RG, *et al.* Improving reporting of meta-ethnography: the eMERGe reporting guidance [published online ahead of print January 15 2019]. *J Adv Nurs* 2019.

France EF, Cunningham M, Ring N, Uny I, Duncan EAS, Jepson RG, *et al.* Improving reporting of meta-ethnography: the eMERGe reporting guidance [published online ahead of print January 15 2019]. *Psycho-oncology* 2019.

France EF, Cunningham M, Ring N, Uny I, Duncan EAS, Jepson RG, *et al.* Improving reporting of meta-ethnography: the eMERGe reporting guidance [published online ahead of print January 15 2019]. *Review of Education* 2019.

France EF, Cunningham M, Ring N, Uny I, Duncan EAS, Jepson RG, *et al.* Improving reporting of meta-ethnography: the eMERGe reporting guidance. *BMC Med Res Methodol* 2019;**19**:25.

France EF, Uny I, Ring N, Turley RL, Maxwell M, Duncan EAS, *et al.* A methodological systematic review of meta-ethnography conduct to articulate the complex analytical phases. *BMC Med Res Methodol* 2019; in press.

Data-sharing statement

There are no data available for further access or sharing owing to the nature of the study. All available data are contained within the report. All queries should be submitted to the corresponding author: emma.france@stir.ac.uk.

References

1. Department of Health and Social Care (DHSC). *Increasing Research and Innovation in Health and Social Care*. London: DHSC; 2015. URL: www.gov.uk/government/publications/2010-to-2015-government-policy-research-and-innovation-in-health-and-social-care/2010-to-2015-government-policy-research-and-innovation-in-health-and-social-care (accessed 3 May 2017).
2. Uny I, France EF, Noblit GW. Steady and delayed: explaining the different development of meta-ethnography in health care and education. *Ethnogr Educ* 2017;**12**:243–57. https://doi.org/10.1080/17457823.2017.1282320
3. Dalton J, Booth A, Noyes J, Sowden AJ. Potential value of systematic reviews of qualitative evidence in informing user-centred health and social care: findings from a descriptive overview. *J Clin Epidemiol* 2017;**88**:37–46. https://doi.org/10.1016/j.jclinepi.2017.04.020
4. Gülmezoglu AM, Chandler J, Shepperd S, Pantoja T. Reviews of qualitative evidence: a new milestone for Cochrane. *Cochrane Database Syst Rev* 2013;**11**:ED000073. https://doi.org/10.1002/14651858.ED000073
5. Pearson A, Wiechula R, Court A, Lockwood C. The JBI model of evidence-based healthcare. *Int J Evid Based Healthc* 2005;**3**:207–15. https://doi.org/10.1111/j.1479-6988.2005.00026.x
6. Campbell R, Pound P, Morgan M, Daker-White G, Britten N, Pill R, *et al.* Evaluating meta-ethnography: systematic analysis and synthesis of qualitative research. *Health Technol Assess* 2011;**15**(43). https://doi.org/10.3310/hta15430
7. Booth A. *Cochrane or Cock-eyed? How Should We Conduct Systematic Reviews of Qualitative Research?* 2001. URL: www.leeds.ac.uk/educol/documents/00001724.htm (accessed 26 March 2018).
8. Noyes J, Hannes K, Booth A, Harris J, Harden A, Popay J, *et al.* Chapter 20: Qualitative Research and Cochrane Reviews. In Higgins JPT, Green S, editors. *Cochrane Handbook for Systematic Reviews of Interventions*. Version 5.3.0 (updated October 2015). 2015. URL: http://methods.cochrane.org/qi/supplemental-handbook-guidance (accessed 26 March 2018).
9. Munro SA, Lewin SA, Smith HJ, Engel ME, Fretheim A, Volmink J. Patient adherence to tuberculosis treatment: a systematic review of qualitative research. *PLOS Med* 2007;**4**:e238. https://doi.org/10.1371/journal.pmed.0040238
10. Nunes V, Neilson J, O'Flynn N, Calvert N, Kuntze S, Smithson H, *et al. Clinical Guidelines and Evidence Review for Medicines Adherence: Involving Patients in Decisions about Prescribed Medicines and Supporting Adherence*. London: National Collaborating Centre for Primary Care and Royal College of General Practitioners; 2009.
11. Pound P, Britten N, Morgan M, Yardley L, Pope C, Daker-White G, Campbell R. Resisting medicines: a synthesis of qualitative studies of medicine taking. *Soc Sci Med* 2005;**61**:133–55. https://doi.org/10.1016/j.socscimed.2004.11.063
12. Downe S, Finlayson K, Tunçalp Ö, Gülmezoglu AM. Factors that influence the uptake of routine antenatal services by pregnant women: a qualitative evidence synthesis (protocol). *Cochrane Database Syst Rev* 2016;**10**:CD012392. https://doi.org/10.1002/14651858.CD012392
13. Kastner M, Antony J, Soobiah C, Straus SE, Tricco AC. Conceptual recommendations for selecting the most appropriate knowledge synthesis method to answer research questions related to complex evidence. *J Clin Epidemiol* 2016;**73**:43–9. https://doi.org/10.1016/j.jclinepi.2015.11.022

14. Noyes J, Booth A, Flemming K, Garside R, Angela H, Lewin S, *et al.* Cochrane Qualitative and Implementation Methods Group Guidance series-paper 3: methods for assessing methodological limitations, data extraction and synthesis, and confidence in synthesized qualitative findings. *J Clin Epidemiol* 2018;**97**:49–58. https://doi.org/10.1016/j.jclinepi.2017.06.020

15. Noyes J, Lewin S. Chapter 6: Supplemental Guidance on Selecting a Method of Qualitative Evidence Synthesis, and Integrating Qualitative Evidence with Cochrane Intervention Reviews. In Noyes J, Booth A, Hannes K, Harden A, Harris J, Lewin S, Lockwood C, editors. *Supplementary Guidance for Inclusion of Qualitative Research in Cochrane Systematic Reviews of Interventions*. Version 1 (updated August 2011). Cochrane Collaboration Qualitative Methods Group; 2011.

16. Paterson BL. 'It Looks Great but How do I know if it Fits?': An Introduction to Meta-Synthesis Research. In Hannes K, Lockwood C, editors. *Synthesizing Qualitative Research*. Chichester: John Wiley & Sons, Ltd; 2011. pp. 1–20. https://doi.org/10.1002/9781119959847.ch1

17. Hannes K, Macaitis K. A move to more systematic and transparent approaches in qualitative evidence synthesis: update on a review of published papers. *Qual Res* 2012;**12**:402–42. https://doi.org/10.1177/1468794111432992

18. Dixon-Woods M, Booth A, Sutton AJ. Synthesizing qualitative research: a review of published reports. *Qual Res* 2007;**7**:375–422. https://doi.org/10.1177/1468794107078517

19. Thorne S, Jensen L, Kearney MH, Noblit G, Sandelowski M. Qualitative metasynthesis: reflections on methodological orientation and ideological agenda. *Qual Health Res* 2004;**14**:1342–65. https://doi.org/10.1177/1049732304269888

20. Tricco AC, Antony J, Soobiah C, Kastner M, Cogo E, MacDonald H, *et al.* Knowledge synthesis methods for generating or refining theory: a scoping review reveals that little guidance is available. *J Clin Epidemiol* 2016;**73**:36–42. https://doi.org/10.1016/j.jclinepi.2015.11.021

21. Scottish Intercollegiate Guidelines Network and British Thoracic Society. *SIGN 153 – British Guideline on the Management of Asthma. A National Clinical Guideline*. 2016. URL: www.brit-thoracic.org.uk/standards-of-care/guidelines/btssign-british-guideline-on-the-management-of-asthma/ (accessed 26 March 2018).

22. Ring N, Jepson R, Hoskins G, Wilson C, Pinnock H, Sheikh A, Wyke S. Understanding what helps or hinders asthma action plan use: a systematic review and synthesis of the qualitative literature. *Patient Educ Couns* 2011;**85**:e131–43. https://doi.org/10.1016/j.pec.2011.01.025

23. Ring N, Jepson R, Ritchie K. Methods of synthesizing qualitative research studies for health technology assessment. *Int J Technol Assess Health Care* 2011;**27**:384–90. https://doi.org/10.1017/S0266462311000389

24. Campbell R, Pound P, Pope C, Britten N, Pill R, Morgan M, Donovan J. Evaluating meta-ethnography: a synthesis of qualitative research on lay experiences of diabetes and diabetes care. *Soc Sci Med* 2003;**56**:671–84. https://doi.org/10.1016/S0277-9536(02)00064-3

25. Noblit G, Hare D. *Meta-Ethnography: Synthesiszing Qualitative Studies*. Thousand Oaks, CA: Sage Publications; 1988. https://doi.org/10.4135/9781412985000

26. Toye F, Seers K, Allcock N, Briggs M, Carr E, Barker K. Meta-ethnography 25 years on: challenges and insights for synthesising a large number of qualitative studies. *BMC Med Res Methodol* 2014;**14**:80. https://doi.org/10.1186/1471-2288-14-80

27. Toye F, Seers K, Allcock N, Briggs M, Carr E, Andrews J, Barker K. 'Trying to pin down jelly' – exploring intuitive processes in quality assessment for meta-ethnography. *BMC Med Res Methodol* 2013;**13**:46. https://doi.org/10.1186/1471-2288-13-46

28. Finfgeld-Connett D, Johnson ED. Literature search strategies for conducting knowledge-building and theory-generating qualitative systematic reviews. *J Adv Nurs* 2013;**69**:194–204. https://doi.org/10.1111/j.1365-2648.2012.06037.x

29. France EF, Ring N, Thomas R, Noyes J, Maxwell M, Jepson R. A methodological systematic review of what's wrong with meta-ethnography reporting. *BMC Med Res Methodol* 2014;**14**:119. https://doi.org/10.1186/1471-2288-14-119

30. Plint AC, Moher D, Morrison A, Schulz K, Altman DG, Hill C, Gaboury I. Does the CONSORT checklist improve the quality of reports of randomised controlled trials? A systematic review. *Med J Aust* 2006;**185**:263–7.

31. Moher D, Schulz KF, Altman DG. The CONSORT statement: revised recommendations for improving the quality of reports of parallel-group randomised trials. *Lancet* 2001;**357**:1191–4. https://doi.org/10.1016/S0140-6736(00)04337-3

32. Moher DL, Liberati A, Tetzlaff J, Altman DG. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *Ann Intern Med* 2009;**151**:264–9. https://doi.org/10.7326/0003-4819-151-4-200908180-00135

33. Davidoff F, Batalden P, Stevens D, Ogrinc G, Mooney S, SQUIRE Development Group. Publication guidelines for improvement studies in health care: evolution of the SQUIRE Project. *Ann Intern Med* 2008;**149**:670–6. https://doi.org/10.7326/0003-4819-149-9-200811040-00009

34. Tong A, Flemming K, McInnes E, Oliver S, Craig J. Enhancing transparency in reporting the synthesis of qualitative research: ENTREQ. *BMC Med Res Methodol* 2012;**12**:181. https://doi.org/10.1186/1471-2288-12-181

35. Wong G, Greenhalgh T, Westhorp G, Buckingham J, Pawson R. RAMESES publication standards: realist syntheses. *BMC Med* 2013;**11**:21. https://doi.org/10.1186/1741-7015-11-21

36. Wong G, Greenhalgh T, Westhorp G, Buckingham J, Pawson R. RAMESES publication standards: meta-narrative reviews. *BMC Med* 2013;**11**:20. https://doi.org/10.1186/1741-7015-11-20

37. Moher D, Schulz KF, Simera I, Altman DG. Guidance for developers of health research reporting guidelines. *PLOS Med* 2010;**7**:e1000217. https://doi.org/10.1371/journal.pmed.1000217

38. Lewin S, Glenton C, Munthe-Kaas H, Carlsen B, Colvin CJ, Gülmezoglu M, *et al.* Using qualitative evidence in decision making for health and social interventions: an approach to assess confidence in findings from qualitative evidence syntheses (GRADE-CERQual). *PLOS Med* 2015;**12**:e1001895. https://doi.org/10.1371/journal.pmed.1001895

39. France EF, Cunningham M, Ring N, Uny I, Duncan EAS, Jepson RG, *et al.* Improving reporting of meta-ethnography: the eMERGe reporting guidance [published online ahead of print January 15 2019]. *J Adv Nurs* 2019. https://doi.org/10.1111/jan.13809

40. France EF, Cunningham M, Ring N, Uny I, Duncan EAS, Jepson RG, *et al.* Improving reporting of meta-ethnography: the eMERGe reporting guidance [published online ahead of print January 15 2019]. *Psycho-oncology* 2019. https://doi.org/10.1002/pon.4915

41. France EF, Cunningham M, Ring N, Uny I, Duncan EAS, Jepson RG, *et al.* Improving reporting of meta-ethnography: the eMERGe reporting guidance [published online ahead of print January 15 2019]. *Review of Education* 2019. https://doi.org/10.1002/rev3.3147

42. France EF, Cunningham M, Ring N, Uny I, Duncan EAS, Jepson RG, *et al.* Improving reporting of meta-ethnography: the eMERGe reporting guidance. *BMC Med Res Methodol* 2019;**19**:25. https://doi.org/10.1186/s12874-018-0600-0

43. France EF, Ring N, Noyes J, Maxwell M, Jepson R, Duncan E, *et al.* Protocol-developing meta-ethnography reporting guidelines (eMERGe). *BMC Med Res Methodol* 2015;**15**:103. https://doi.org/10.1186/s12874-015-0068-0

44. Dixon-Woods M, Agarwal S, Young B, Jones D, Sutton AJ. *Integrative Approaches to Qualitative And Quantitative Evidence*. London: Health Development Agency; 2004.

45. Turner SP. *Sociological Explanation As Translation*. New York, NY: Cambridge University Press; 1980.

46. Britten N, Campbell R, Pope C, Donovan J, Morgan M, Pill R. Using meta ethnography to synthesise qualitative research: a worked example. *J Health Serv Res Policy* 2002;**7**:209–15. https://doi.org/10.1258/135581902320432732

47. Kinn LG, Holgersen H, Ekeland TJ, Davidson L. Metasynthesis and bricolage: an artistic exercise of creating a collage of meaning. *Qual Health Res* 2013;**23**:1285–92. https://doi.org/10.1177/1049732313502127

48. CASP UK. *Critical Appraisal Skills Programme (CASP)*. CASP UK; 1998. URL: www.casp-uk.net (accessed 10 October 2017).

49. Malpass A, Shaw A, Sharp D, Walter F, Feder G, Ridd M, Kessler D. 'Medication career' or 'moral career'? The two sides of managing antidepressants: a meta-ethnography of patients' experience of antidepressants. *Soc Sci Med* 2009;**68**:154–68. https://doi.org/10.1016/j.socscimed.2008.09.068

50. Erasmus E. The use of street-level bureaucracy theory in health policy analysis in low- and middle-income countries: a meta-ethnographic synthesis. *Health Policy Plan* 2014;**29**(Suppl. 3):iii70–8. https://doi.org/10.1093/heapol/czu112

51. Britten N, Pope C. Medicine Taking for Asthma: a Worked Example of Meta-Ethnography. In Hannes K, Lockwood C, editors. *Synthesizing Qualitative Research: Choosing the Right Approach*. Chichester: John Wiley & Sons, Ltd; 2012. pp. 41–58. https://doi.org/10.1002/9781119959847.ch3

52. Campbell R, Britten N, Pound P, Donovan J, Morgan M, Pill R, *et al.* Section 4.8 – Using Meta-Ethnography to Synthesise Qualitative Research. In Popay J, editor. *Moving Beyond Effectiveness in Evidence Synthesis: Methodological Issues in the Synthesis of Diverse Sources of Evidence*. London: NICE; 2006.

53. Atkins S, Lewin S, Smith H, Engel M, Fretheim A, Volmink J. Conducting a meta-ethnography of qualitative literature: lessons learnt. *BMC Med Res Methodol* 2008;**8**:21. https://doi.org/10.1186/1471-2288-8-21

54. Garside R. *A Comparison of Methods for the Systematic Review of Qualitative Research: Two Examples Using Meta-Ethnography and Meta-Study*. Exeter: University of Exeter; 2008.

55. Doyle LH. Synthesis through meta-ethnography: Paradoxes, enhancements, and possibilities. *Qual Res* 2003;**3**:321–44. https://doi.org/10.1177/1468794103033003

56. Booth A, Carroll C, Ilott I, Low LL, Cooper K. Desperately seeking dissonance: identifying the disconfirming case in qualitative evidence synthesis. *Qual Health Res* 2013;**23**:126–41. https://doi.org/10.1177/1049732312466295

57. Booth A. *Acknowledging a Dual Heritage for Qualitative Evidence Synthesis: Harnessing the Qualitative Research and Systematic Review Research Traditions*. Sheffield: University of Sheffield; 2013.

58. Bondas T, Hall EO. Challenges in approaching metasynthesis research. *Qual Health Res* 2007;**17**:113–21. https://doi.org/10.1177/1049732306295879

59. Garside R, Britten N, Stein K. The experience of heavy menstrual bleeding: a systematic review and meta-ethnography of qualitative studies. *J Adv Nurs* 2008;**63**:550–62. https://doi.org/10.1111/j.1365-2648.2008.04750.x

60. Colvin CJ, Smith HJ, Swartz A, Ahs JW, de Heer J, Opiyo N, *et al.* Understanding careseeking for child illness in sub-Saharan Africa: a systematic review and conceptual framework based on qualitative research of household recognition and response to child diarrhoea, pneumonia and malaria. *Soc Sci Med* 2013;**86**:66–78. https://doi.org/10.1016/j.socscimed.2013.02.031

61. Williamson LM, Parkes A, Wight D, Petticrew M, Hart GJ. Limits to modern contraceptive use among young women in developing countries: a systematic review of qualitative research. *Reprod Health* 2009;**6**:3. https://doi.org/10.1186/1742-4755-6-3

62. Monforte-Royo C, Villavicencio-Chávez C, Tomás-Sábado J, Mahtani-Chugani V, Balaguer A. What lies behind the wish to hasten death? A systematic review and meta-ethnography from the perspective of patients. *PLOS ONE* 2012;**7**:e37117. https://doi.org/10.1371/journal.pone.0037117

63. Galdas P, Darwin Z, Fell J, Kidd L, Bower P, Blickem C, *et al.* A systematic review and metaethnography to identify how effective, cost-effective, accessible and acceptable self-management support interventions are for men with long-term conditions (SELF-MAN). *Health Serv Deliv Res* 2015;**3**(34).

64. Wells M, Williams B, Firnigl D, Lang H, Coyle J, Kroll T, *et al. Returning to Work After Cancer: a Qualitative Meta-Synthesis of Problems, Experiences and Strategies of Working After Cancer*. Edinburgh: Chief Scientist's Office; 2011.

65. Wells M, Williams B, Firnigl D, Lang H, Coyle J, Kroll T, MacGillivray S. Supporting 'work-related goals' rather than 'return to work' after cancer? A systematic review and meta-synthesis of 25 qualitative studies. *Psycho-Oncology* 2013;**22**:1208–19. https://doi.org/10.1002/pon.3148

66. Garrett CR, Gask LL, Hays R, Cherrington A, Bundy C, Dickens C, *et al.* Accessing primary health care: a meta-ethnography of the experiences of British South Asian patients with diabetes, coronary heart disease or a mental health problem. *Chronic Illn* 2012;**8**:135–55. https://doi.org/10.1177/1742395312441631

67. Hoy S. Beyond men behaving badly: a meta-ethnography of men's perspectives on psychological distress and help seeking. *Int J Men's Health* 2012;**11**:202–26. https://doi.org/10.3149/jmh.1103.202

68. Purc-Stephenson RJ, Thrasher C. Nurses' experiences with telephone triage and advice: a meta-ethnography. *J Adv Nurs* 2010;**66**:482–94. https://doi.org/10.1111/j.1365-2648.2010.05275.x

69. Hole E, Stubbs B, Roskell C, Soundy A. The patient's experience of the psychosocial process that influences identity following stroke rehabilitation: a metaethnography. *Sci World J* 2014;**2014**:349151. https://doi.org/10.1155/2014/349151

70. Lucas PJ, Cabral C, Hay AD, Horwood J. A systematic review of parent and clinician views and perceptions that influence prescribing decisions in relation to acute childhood infections in primary care. *Scand J Prim Health Care* 2015;**33**:11–20. https://doi.org/10.3109/02813432.2015.1001942

71. Priddis H, Dahlen H, Schmied V. Women's experiences following severe perineal trauma: a meta-ethnographic synthesis. *J Adv Nurs* 2013;**69**:748–59. https://doi.org/10.1111/jan.12005

72. Sinnott C, Mc Hugh S, Browne J, Bradley C. GPs' perspectives on the management of patients with multimorbidity: systematic review and synthesis of qualitative research. *BMJ Open* 2013;**3**:e003610. https://doi.org/10.1136/bmjopen-2013-003610

73. Cullinan S, O'Mahony D, Fleming A, Byrne S. A meta-synthesis of potentially inappropriate prescribing in older patients. *Drugs Aging* 2014;**31**:631–8. https://doi.org/10.1007/s40266-014-0190-4

74. Molony SL. The meaning of home: a qualitative meta-synthesis. *Res Gerontol Nurs* 2010;**3**:291–307. https://doi.org/10.3928/19404921-20100302-02

75. Errasti-Ibarrondo B, Pérez M, Carrasco JM, Lama M, Zaragoza A, Arantzamendi M. Essential elements of the relationship between the nurse and the person with advanced and terminal cancer: a meta-ethnography. *Nurs Outlook* 2015;**63**:255–68. https://doi.org/10.1016/j.outlook.2014.12.001

76. Kane GA, Wood VA, Barlow J. Parenting programmes: a systematic review and synthesis of qualitative research. *Child Care Health Dev* 2007;**33**:784–93. https://doi.org/10.1111/j.1365-2214.2007.00750.x

77. Soundy A, Smith B, Dawes H, Pall H, Gimbrere K, Ramsay J. Patient's expression of hope and illness narratives in three neurological conditions: a meta-ethnography. *Health Psychol Rev* 2013;**7**:177–201. https://doi.org/10.1080/17437199.2011.568856

78. Ypinazar VA, Margolis SA, Haswell-Elkins M, Tsey K. Indigenous Australians' understandings regarding mental health and disorders. *Aust N Z J Psychiatry* 2007;**41**:467–78. https://doi.org/10.1080/00048670701332953

79. Wikberg A, Bondas T. A patient perspective in research on intercultural caring in maternity care: A meta-ethnography. *Int J Qual Stud Health Well-being* 2010;**5**:4648. https://doi.org/10.3402/qhw.v5i1.4648

80. Malterud K, Ulriksen K. Obesity, stigma, and responsibility in health care: a synthesis of qualitative studies. *Int J Qual Stud Health Well-being* 2011;**6**:4. https://doi.org/10.3402/qhw.v6i4.8404

81. Duncan E, Swingler K. *A Web Site for Conducting Delphi Studies*. 2013. URL: http://delphi.stir.ac.uk/about/ (accessed 27 March 2018).

82. Duncan EA, Colver K, Dougall N, Swingler K, Stephenson J, Abhyankar P. Consensus on items and quantities of clinical equipment required to deal with a mass casualties big bang incident: a national Delphi study. *BMC Emerg Med* 2014;**14**:5. https://doi.org/10.1186/1471-227X-14-5

83. Linstone HA, Turoff M. The Delphi method: techniques and applications. *Technometrics* 2002;**18**.

84. Hasson F, Keeney S, McKenna H. Research guidelines for the Delphi survey technique. *J Adv Nurs* 2000;**32**:1008–15.

85. Black N, Murphy M, Lamping D, McKee M, Sanderson C, Askham J, Marteau T. Consensus development methods: a review of best practice in creating clinical guidelines. *J Health Serv Res Policy* 1999;**4**:236–48. https://doi.org/10.1177/135581969900400410

86. Duncan E, Nicol MM, Ager A. Factors that constitute a good cognitive behavioural treatment manual: A Delphi study. *Behav Cogn Psychother* 2004;**32**:199–213. https://doi.org/10.1017/S135246580400116X

87. Mead D, Moseley L. The use of the Delphi as a research approach. *Nurse Res* 2001;**8**:4–23. https://doi.org/10.7748/nr2001.07.8.4.4.c6162

88. Okoli C, Pawlowski SD. The Delphi method as a research tool: an example, design considerations and applications. *Inform Manage* 2004;**42**:15–29. https://doi.org/10.1016/j.im.2003.11.002

89. Booth A. 'Brimful of STARLITE': toward standards for reporting literature searches. *J Med Libr Assoc* 2006;**94**:421–9, e205.

90. Booth A, Noyes J, Flemming K, Gerhardus A, Wahlster P, Van Der Wilt G, *et al. Guidance on Choosing Qualitative Evidence Synthesis Methods for Use in Health Technology Assessments of Complex Interventions*. INTEGRATE-HTA; 2016.

91. McCormick J, Rodney P, Varcoe C. Reinterpretations across studies: an approach to meta-analysis. *Qual Health Res* 2003;**13**:933–44. https://doi.org/10.1177/1049732303253480

92. Walsh D, Downe S. Meta-synthesis method for qualitative research: a literature review. *J Adv Nurs* 2005;**50**:204–11. https://doi.org/10.1111/j.1365-2648.2005.03380.x

93. Dixon-Woods M, Agarwal S, Jones D, Young B, Sutton A. Synthesising qualitative and quantitative evidence: a review of possible methods. *J Health Serv Res Policy* 2005;**10**:45–53. https://doi.org/10.1177/135581960501000110

94. Pope C, Mays N. Chapter 13. Synthesising Qualitative Research. In Pope CM, Mays N, editors. *Qualitative Research in Health Care*. 3rd edn. Oxford: Blackwell Publishing; 2006. pp. 142–52. https://doi.org/10.1002/9780470750841.ch13

95. Weed M. Interpretive qualitative synthesis in the sport & exercise sciences: the meta-interpretation approach. *Eur J Sport Sci* 2006;**6**:127–39. https://doi.org/10.1080/17461390500528576

96. Bondas T, Hall EOC. A decade of metasynthesis research in health sciences: a meta-method study. *Int J Qual Stud Health* 2007;**2**:101–13. https://doi.org/10.1080/17482620701251684

97. Pope C, Mays N, Popay J. *Synthesizing Qualitative and Quantitative Health Evidence: A Guide to Methods*. Maidenhead: Open University Press; 2007.

98. Finlayson KW, Dixon A. Qualitative meta-synthesis: a guide for the novice. *Nurse Res* 2008;**15**:59–71. https://doi.org/10.7748/nr2008.01.15.2.59.c6330

99. Weed M. A potential method for the interpretive synthesis of qualitative research: issues in the development of 'meta-interpretation'. *Int J Soc Res Method* 2008;**11**:13–28. https://doi.org/10.1080/13645570701401222

100. Barnett-Page E, Thomas J. Methods for the synthesis of qualitative research: a critical review. *BMC Med Res Methodol* 2009;**9**:59. https://doi.org/10.1186/1471-2288-9-59

101. Beck CT. Metasynthesis: a goldmine for evidence-based practice. *AORN J* 2009;**90**:701–2, 705–10. https://doi.org/10.1016/j.aorn.2009.06.025

102. Suri H, Clarke D. Advancements in research synthesis methods: from a methodologically inclusive perspective. *Rev Educ Res* 2009;**79**:395–430. https://doi.org/10.3102/0034654308326349

103. Ring N, Ritchie K, Mandava L, Jepson R. *A Guide to Synthesising Qualitative Research for Researchers Undertaking Health Technology Assessments and Systematic Reviews*. Edinburgh: NHS Quality Improvement Scotland; 2010.

104. Hansen HP, Draborg E, Kristensen FB. Exploring qualitative research synthesis: the role of patients' perspectives in health policy design and decision making. *Patient* 2011;**4**:143–52. https://doi.org/10.2165/11539880-000000000-00000

105. Kangasniemi M, Länsimies-Antikainen H, Halkoaho A, Pietilä AM. Examination of the phases of metasynthesis: a study on patients' duties as an example. *Prof Inferm* 2012;**65**:55–60.

106. Saini M, Shlonsky A. *Systematic Synthesis of Qualitative Research*. Oxford: Oxford University Press; 2012. https://doi.org/10.1093/acprof:oso/9780195387216.001.0001

107. Bearman M, Dawson P. Qualitative synthesis and systematic review in health professions education. *Med Educ* 2013;**47**:252–60. https://doi.org/10.1111/medu.12092

108. McCann S, Campbell M, Entwistle V. Recruitment to clinical trials: a meta-ethnographic synthesis of studies of reasons for participation. *J Health Serv Res Policy* 2013;**18**:233–41. https://doi.org/10.1177/1355819613483126

109. Franzel B, Schwiegershausen M, Heusser P, Berger B. How to locate and appraise qualitative research in complementary and alternative medicine. *BMC Complement Altern Med* 2013;**13**:125. https://doi.org/10.1186/1472-6882-13-125

110. Hammersley M. Chapter 11. What is qualitative synthesis and why we do It? In Hammersley M, editor. *The Myth of Research Based Policy*: London: Sage; 2013. https://doi.org/10.4135/9781473957626.n12

111. Finfgeld-Connett D. Metasynthesis findings: potential versus reality. *Qual Health Res* 2014;**24**:1581–91. https://doi.org/10.1177/1049732314548878

112. Melendez-Torres GJ, Grant S, Bonell C. A systematic review and critical appraisal of qualitative metasynthetic practice in public health to develop a taxonomy of operations of reciprocal translation. *Res Synth Methods* 2015;**6**:357–71. https://doi.org/10.1002/jrsm.1161

113. Sigurdson C, Woodgate R. Designing a Metasynthesis Study in Pediatric Oncology Nursing Research. *J Pediatr Oncol Nurs* 2015;**32**:360–8. https://doi.org/10.1177/1043454214563544

114. Lee RP, Hart RI, Watson RM, Rapley T. Qualitative synthesis in practice: Some pragmatics of meta-ethnography. *Qual Res* 2015;**15**:334–50. https://doi.org/10.1177/1468794114524221

115. Meadows-Oliver M. Meta-Ethnography. In de Chesnay M, editor. *Nursing Research Using Ethnography: Qualitative Designs and Methods in Nursing*. New York, NY: Springer Publishing Company; 2015. pp. 171–9.

116. Carroll C, Booth A. Quality assessment of qualitative evidence for systematic review and synthesis: is it meaningful, and if so, how should it be performed? *Res Synth Methods* 2015;**6**:149–54. https://doi.org/10.1002/jrsm.1128

117. Seers K. Qualitative systematic reviews: their importance for our understanding of research relevant to pain. *Br J Pain* 2015;**9**:36–40. https://doi.org/10.1177/2049463714549777

118. Nye E, Melendez-Torres GJ, Bonnell C. Origins, methods, and advances in qualitative meta-synthesis. *Rev Educ* 2016;**4**:57–79. https://doi.org/10.1002/rev3.3065

119. France EF, Wells M, Lang H, Williams B. Why, when and how to update a meta-ethnography qualitative synthesis. *Syst Rev* 2016;**5**:44. https://doi.org/10.1186/s13643-016-0218-4

120. Ayar MC, Bauchspies WK, Yalvac B. Examining interpretive studies of science: a meta-ethnography. *Educ Sci-Theor Pract* 2015;**15**:253–65. https://doi.org/10.12738/estp.2015.1.2153

121. Beach D, Bagley C, Eriksson A, Player-Koro C. Changing teacher education in Sweden: using meta-ethnographic analysis to understand and describe policy making and educational changes. *Teach Teach Educ* 2014;**44**:160–7. https://doi.org/10.1016/j.tate.2014.08.011

122. Gomersall T, Madill A, Summers LK. A metasynthesis of the self-management of type 2 diabetes. *Qual Health Res* 2011;**21**:853–71. https://doi.org/10.1177/1049732311402096

123. Toye F, Seers K, Allcock N, Briggs M, Carr E, Andrews J, Barker K. Patients' experiences of chronic non-malignant musculoskeletal pain: a qualitative systematic review. *Br J Gen Pract* 2013;**63**:e829–41. https://doi.org/10.3399/bjgp13X675412

124. Vittner D, Casavant S, McGrath JM. A meta-ethnography: skin-to-skin holding from the caregiver's perspective. *Adv Neonatal Care* 2015;**15**:191–200. https://doi.org/10.1097/ANC.0000000000000169

125. Brohan E, Henderson C, Wheat K, Malcolm E, Clement S, Barley EA, *et al.* Systematic review of beliefs, behaviours and influencing factors associated with disclosure of a mental health problem in the workplace. *BMC Psychiatry* 2012;**12**:11. https://doi.org/10.1186/1471-244X-12-11

126. Cairns V, Murray C. How do the features of mindfulness-based cognitive therapy contribute to positive therapeutic change? A meta-synthesis of qualitative studies. *Behav Cogn Psychother* 2015;**43**:342–59. https://doi.org/10.1017/S1352465813000945

127. Child S, Goodwin V, Garside R, Jones-Hughes T, Boddy K, Stein K. Factors influencing the implementation of fall-prevention programmes: a systematic review and synthesis of qualitative studies. *Implement Sci* 2012;**7**:91. https://doi.org/10.1186/1748-5908-7-91

128. Furuta M, Sandall J, Bick D. Women's perceptions and experiences of severe maternal morbidity – a synthesis of qualitative studies using a meta-ethnographic approach. *Midwifery* 2014;**30**:158–69. https://doi.org/10.1016/j.midw.2013.09.001

129. Jensen LA, Allen MN. A synthesis of qualitative research on wellness-illness. *Qual Health Res* 1994;**4**:349–69. https://doi.org/10.1177/104973239400400402

130. Lundgren I, Begley C, Gross MM, Bondas T. 'Groping through the fog': a metasynthesis of women's experiences on VBAC (Vaginal birth after Caesarean section). *BMC Pregnancy Childbirth* 2012;**12**:85. https://doi.org/10.1186/1471-2393-12-85

131. Nelson AM. A meta-synthesis related to infant feeding decision making. *MCN Am J Matern Child Nurs* 2012;**37**:247–52. https://doi.org/10.1097/NMC.0b013e31824fde7d

132. O'Neill T, Jinks C, Ong BN. Decision-making regarding total knee replacement surgery: a qualitative meta-synthesis. *BMC Health Serv Res* 2007;**7**:52. https://doi.org/10.1186/1472-6963-7-52

133. Rudolfsson G, Berggren I. Nursing students' perspectives on the patient and the impact of the nursing culture: a meta-synthesis. *J Nurs Manag* 2012;**20**:771–81. https://doi.org/10.1111/j.1365-2834.2012.01470.x

134. Schmied V, Olley H, Burns E, Duff M, Dennis CL, Dahlen HG. Contradictions and conflict: a meta-ethnographic study of migrant women's experiences of breastfeeding in a new country. *BMC Pregnancy Childbirth* 2012;**12**:163. https://doi.org/10.1186/1471-2393-12-163

135. Smith LK, Pope C, Botha JL. Patients' help-seeking experiences and delay in cancer presentation: a qualitative synthesis. *Lancet* 2005;**366**:825–31. https://doi.org/10.1016/S0140-6736(05)67030-4

136. Smith TO, Purdy R, Lister S, Salter C, Fleetcroft R, Conaghan PG. Attitudes of people with osteoarthritis towards their conservative management: a systematic review and meta-ethnography. *Rheumatol Int* 2014;**34**:299–313. https://doi.org/10.1007/s00296-013-2905-y

137. Steen M, Downe S, Bamford N, Edozien L. Not-patient and not-visitor: a metasynthesis fathers' encounters with pregnancy, birth and maternity care. *Midwifery* 2012;**28**:362–71. https://doi.org/10.1016/j.midw.2011.06.009

138. Thorne S, Paterson B. Shifting images of chronic illness. *Image J Nurs Sch* 1998;**30**:173–8. https://doi.org/10.1111/j.1547-5069.1998.tb01275.x

139. Tuthill E, McGrath J, Young S. Commonalities and differences in infant feeding attitudes and practices in the context of HIV in sub-Saharan Africa: a metasynthesis. *AIDS Care* 2014;**26**:214–25. https://doi.org/10.1080/09540121.2013.813625

140. Tuquero JM. A meta-ethnographic synthesis of support services in distance learning programs. *J Inf Technol Educ* 2011;**10**:157–79.

Appendix 1 List of databases and search terms used in stage 1: methodological review

TABLE 5 List of databases searched in stage 1: methodological review

Databases	Other sources
• MEDLINE (1947 to date) • SCOPUS (1987 to date) • PsycARTICLES (inception to date) • PsycINFO (inception to date) • PubMed (inception to date) • CINAHL (inception to date) • International Bibliography of the Social Sciences (inception to date) • Sociological abstracts (inception to date) • Web of Science Core Collection (inception to date) • British Education Index (inception to date) • ERIC (inception to date) • Australian Education Index (inception to date) • Applied Social Sciences Index and Abstracts (inception to date)	• Cochrane Collaboration • The Campbell Collaboration • OpenGrey • CRD

CINAHL, Cumulative Index to Nursing and Allied Health Literature; CRD, Centre for Reviews and Dissemination; ERIC, Educational Resources Information Center.

TABLE 6 List of search terms used in stage 1: methodological review (example for MEDLINE)

1	("qualitative synthes#s" or Qualitative systematic review*).ti,ab.
2	("meta-ethnograph*" or "metaethnograph*" or "meta ethnograph*" or "meta-synth*" or "meta synth*" or "metasynth*" or "line* of argument").ti,ab.
3	("critical synth*" or "textual synth*" or "framework synth*" or "thematic synth*" or "grounded synth*" or textual narrative synthe#s) adj2 review*).ti,ab.
4	("metasynthes#s" or "meta synthes#s" or "metasynthes#s" or "meta-stud*" or metastud*).ti,ab.
5	(("qualitative" adj2 "synth*") or ("third order" adj2 "construct*") or (qualitative adj2 review)).ti,ab.
6	knowledge synthesis.ti,ab.
7	or/1-6
8	(("method*" or steps) adj2 ("insight*" or lessons or learnt or "explor*" or learned or conduct* or "approach*")).ti,ab.
9	"worked example*".ti,ab.
10	((good or best or recommend* or quality or publishing or reporting) adj3 (guid* or design* or standard* or practi#e* or report* or method* or steps)).ti,ab.
11	lessons learnt.ti,ab.
12	((challenges or steps) adj5 (synthesis* or qualitative or conduct* or report* or design* or method* or present* or practical*)).ti,ab.
13	(practical adj5 (guid* or design* or standard* or approach* or framework*)).ti,ab.
14	((methods or methodological) adj5 (guid* or design* or standard* or approach* or framework*)).ti,ab.
15	or/8-14
16	qualitative research/ and "meta-analysis as topic"/
17	15 and 7
18	16 or 17

Appendix 2 List of publications reviewed in stage 1 and their characteristics

Publication type	Author(s)	Title	Year	Publication name	Includes a worked example of meta-ethnography	Rich in detail (yes/no)	Discipline	Author(s)' country of work
Book	Noblit and Hare[25]	*Meta-Ethnography: Synthesizing Qualitative Studies*	1988	–	Yes	Yes	Education	USA
Journal article	Britten *et al.*[46]	Using meta ethnography to synthesise qualitative research: a worked example	2002	*Journal of Health Services & Research Policy*	Yes	Yes	Health	UK
Journal article	Campbell *et al.*[24]	Evaluating meta-ethnography: a synthesis of qualitative research on lay experiences of diabetes and diabetes care	2003	*Social Science & Medicine*	Yes	Yes	Health	UK
Journal article	McCormick *et al.*[91]	Reinterpretations across studies: an approach to meta-analysis	2003	*Qualitative Health Research*	No	No	Health	Canada
Journal article	Doyle[55]	Synthesis through meta-ethnography: Paradoxes, enhancements, and possibilities	2003	*Qualitative Research*	Yes	Yes	Education	USA
Journal article	Thorne *et al.*[19]	Qualitative metasynthesis: reflections on methodological orientation and ideological agenda	2004	*Qualitative Health Research*	No	Yes	Health	USA and Canada
Journal article	Dixon-Woods *et al.*[44]	Integrative approaches to qualitative and quantitative evidence	2004	Health Development Agency	No	No	Health	UK
Journal article	Walsh and Downe[92]	Meta-synthesis method for qualitative research: a literature review	2005	*Journal of Advanced Nursing*	Yes	Yes	Health	UK
Journal article	Dixon-Woods *et al.*[93]	Synthesising qualitative and quantitative evidence: a review of possible methods	2005	*Journal of Health Service Research and Policy*	No	Yes	Health	UK
Book section	Pope and Mays[94]	Chapter 13. Synthesising Qualitative Research	2006	Qualitative Research in Health Care (3rd edn.)	No	No	Health	UK
Book section	Campbell *et al.*[52]	Section 4.8 – Using Meta-Ethnography to Synthesise Qualitative Research	2006	*Moving Beyond Effectiveness in Evidence Synthesis: Methodological Issues in the Synthesis of Diverse Sources of Evidence*	Yes	Yes	Health	UK

Publication type	Author(s)	Title	Year	Publication name	Includes a worked example of meta-ethnography	Rich in detail (yes/no)	Discipline	Author(s)' country of work
Journal article	Weed[95]	Interpretive qualitative synthesis in the sport & exercise sciences: The meta-interpretation approach	2006	*European Journal of Sport Science*	No	Yes	Sports science	UK
Journal article	Bondas and Hall[58]	Challenges in approaching metasynthesis research	2007	*Qualitative Health Research*	No	Yes	Health	Denmark, Finland and Norway
Journal article	Dixon-Woods *et al.*[18]	Synthesizing qualitative research: a review of published reports	2007	*Qualitative Research*	No	No	Health	UK
Journal article	Bondas and Hall[96]	A decade of metasynthesis research in health sciences: A meta-method study	2007	*International Journal of Qualitative Studies on Health and Well-Being*	No	Yes	Health	Sweden and Denmark
Book section	Pope and Popay[97]	Chapter 4. Interpretive approaches to evidence synthesis	2007	Synthesising Qualitative and Quantitative Health Evidence: A Guide to Methods	No	No	Health	UK
Journal article	Finlayson and Dixon[98]	Qualitative meta-synthesis: a guide for the novice	2008	*Nurse Researcher*	No	No	Health	UK
Journal article	Weed[99]	A potential method for the interpretive synthesis of qualitative research: Issues in the development of 'meta-interpretation'	2008	*International Journal of Social Research Methodology: Theory & Practice*	No	No	Sports science	UK
Journal article	Atkins *et al.*[53]	Conducting a meta-ethnography of qualitative literature: lessons learnt	2008	*BMC Medical Research Methodology*	Yes	Yes	Health	South Africa
Thesis	Garside[54]	A Comparison of Methods for the Systematic Review of Qualitative Research: Two Examples Using Meta-Ethnography and Meta-Study	2008	University of Exeter	Yes	No	Health	UK
Journal article	Barnett-Page and Thomas[100]	Methods for the synthesis of qualitative research: a critical review	2009	*BMC Medical Research Methodology*	No	No	Education	UK
Journal article	Beck[101]	Metasynthesis: a goldmine for evidence-based practice	2009	*AORN Journal*	No	No	Health	USA

Publication type	Author(s)	Title	Year	Publication name	Includes a worked example of meta-ethnography	Rich in detail (yes/no)	Discipline	Author(s)' country of work
Journal article	Malpass *et al.*[49]	'Medication career' or 'moral career'? The two sides of managing antidepressants: a meta-ethnography of patients' experience of antidepressants	2009	*Social Science & Medicine*	Yes	Yes	Health	UK
Journal article	Suri and Clarke[102]	Advancements in Research Synthesis Methods: From a Methodologically Inclusive Perspective	2009	*Review of Educational Research*	No	No	Education	Australia
Report	Ring *et al.*[103]	A guide to synthesising qualitative research for researchers undertaking health technology assessments and systematic reviews	2010	*NHS Quality Improvement Scotland*	No	No	Health	UK
Report	Campbell *et al.*[6]	Evaluating meta-ethnography: systematic analysis and synthesis of qualitative research	2011	*Health Technology Assessment*	Yes	Yes	Health	UK
Journal article	Hansen *et al.*[104]	Exploring qualitative research synthesis: the role of patients' perspectives in health policy design and decision making	2011	*The Patient: Patient-Centered Outcomes Research*	No	No	Health	Denmark
Journal article	Ring *et al.*[23]	Methods of synthesising qualitative research studies for health technology assessment	2011	*International Journal of Technology Assessment in Health Care*	No	No	Health	UK
Book section	Noyes and Lewin[15]	Chapter 6: Supplemental Guidance on Selecting a Method of Qualitative Evidence Synthesis, and Integrating Qualitative Evidence with Cochrane Intervention Reviews	2011	*Supplementary Guidance for Inclusion of Qualitative Research in Cochrane Systematic Reviews of Interventions. Version 1 (updated August 2011)*	No	No	Health	UK and Norway
Book section	Paterson[16]	'It Looks Great but How do I know if it Fits?': An Introduction to Meta-Synthesis Research	2011	*Synthesizing Qualitative Research*	No	No	Health	Canada

Publication type	Author(s)	Title	Year	Publication name	Includes a worked example of meta-ethnography	Rich in detail (yes/no)	Discipline	Author(s)' country of work
Book section	Britten and Pope[51]	Medicine Taking for Asthma: A Worked Example of Meta-Ethnography	2011	*Synthesizing Qualitative Research*	Yes	Yes	Health	UK
Journal article	Tong *et al.*[34]	Enhancing transparency in reporting the synthesis of qualitative research: ENTREQ	2012	*BMC Medical Research Methodology*	No	No	Health	Australia
Journal article	Kangasniemi *et al.*[105]	Examination of the phases of metasynthesis: a study on patients' duties as an example	2012	*Professioni Infermieristiche*	Yes	No	Health	Finland
Journal article	Hannes and Macaitis[17]	A move to more systematic and transparent approaches in qualitative evidence synthesis: Update on a review of published papers	2012	*Qualitative Research*	No	No	Education and labour studies	Belgium and Australia
Book	Saini and Shlonsky[106]	Systematic synthesis of qualitative research	2012	*Oxford University Press*	No	No	Social work	Canada and Australia
Journal article	Bearman and Dawson[107]	Qualitative synthesis and systematic review in health professions education	2013	*Medical Education*	No	No	Health	Australia
Journal article	Booth *et al.*[56]	Desperately seeking dissonance: identifying the disconfirming case in qualitative evidence synthesis	2013	*Qualitative Health Research*	No	Yes	Health	UK and Malaysia
Journal article	Kinn *et al.*[47]	Metasynthesis and bricolage: an artistic exercise of creating a collage of meaning	2013	*Qualitative Health Research*	No	Yes	Health and social work	USA
Journal article	Toye *et al.*[27]	'Trying to pin down jelly' – exploring intuitive processes in quality assessment for meta-ethnography	2013	*BMC Medical Research Methodology*	No	Yes	Health	UK and Canada
Journal article	McCann *et al.*[108]	Recruitment to clinical trials: a meta-ethnographic synthesis of studies of reasons for participation	2013	*Journal of Health Service Research and Policy*	Yes	No	Health	UK
Journal article	Franzel *et al.*[109]	How to locate and appraise qualitative research in complementary and alternative medicine	2013	*BMC Complementary and Alternative Medicine*	Yes	Yes	Health	Germany

Publication type	Author(s)	Title	Year	Publication name	Includes a worked example of meta-ethnography	Rich in detail (yes/no)	Discipline	Author(s)' country of work
Journal article	Finfgeld-Connett and Johnson[28]	Literature search strategies for conducting knowledge-building and theory-generating qualitative systematic reviews	2013	*Journal of Advanced Nursing*	No	Yes	Health	USA
Thesis	Booth[57]	Acknowledging a Dual Heritage for Qualitative Evidence Synthesis: Harnessing the Qualitative Research and Systematic Review Research Traditions	2013	University of Sheffield	No	No	Health	UK
Book section	Hammersley[110]	Chapter 11. What is qualitative synthesis and why we do it?	2013	*The Myth of Research Based Policy*	No	Yes	Education	UK
Journal article	Toye *et al.*[26]	Meta-ethnography 25 years on: challenges and insights for synthesising a large number of qualitative studies	2014	*BMC Medical Research Methodology*	Yes	Yes	Health	UK and Canada
Journal article	Erasmus[50]	The use of street-level bureaucracy theory in health policy analysis in low- and middle-income countries: a meta-ethnographic synthesis	2014	*Health Policy & Planning*	Yes	Yes	Health	South Africa
Journal article	France *et al.*[29]	A methodological systematic review of what's wrong with meta-ethnography reporting	2014	*BMC Medical Research Methodology*	No	Yes	Health	UK
Journal article	Finfgeld-Connett[111]	Metasynthesis findings: potential versus reality	2014	*Qualitative Health Research*	No	Yes	Health	USA
Journal article	Melendez-Torres *et al.*[112]	A systematic review and critical appraisal of qualitative metasynthetic practice in public health to develop a taxonomy of operations of reciprocal translation	2015	*Research Synthesis Methods*	No	Yes	Social policy	UK and USA
Journal article	Sigurdson and Woodgate[113]	Designing a Metasynthesis Study in Pediatric Oncology Nursing Research	2015	*Journal of Pediatric Oncology and Nursing*	No	No	Health	Canada
Journal article	Lee *et al.*[114]	Qualitative synthesis in practice: Some pragmatics of meta-ethnography	2015	*Qualitative Research*	Yes	Yes	Health	UK

Publication type	Author(s)	Title	Year	Publication name	Includes a worked example of meta-ethnography	Rich in detail (yes/no)	Discipline	Author(s)' country of work
Book section	Meadows-Oliver[115]	Meta-ethnography	2015	*Nursing Research Using Ethnography: Qualitative Designs and Methods in Nursing*	Yes	Yes	Health	USA
Journal article	Carroll and Booth[116]	Quality assessment of qualitative evidence for systematic review and synthesis: Is it meaningful, and if so, how should it be performed?	2015	*Research Synthesis Methods*	no	Yes	Health	UK
Journal article	Seers[117]	Qualitative systematic reviews: their importance for our understanding of research relevant to pain	2015	*British Journal of Pain*	No	No	Health	UK
Report	Booth *et al.*[90]	Guidance on choosing qualitative evidence synthesis methods for use in health technology assessments of complex interventions	2016	INTEGRATE-HTA	No		Health	International
Journal article	Nye *et al.*[118]	Origins, methods, and advances in qualitative meta-synthesis	2016	*Review of Educational Research*	No	No	Social policy	UK
Journal article	France *et al.*[119]	Why, when and how to update a meta-ethnography qualitative synthesis	2016	*Systematic Reviews*	Yes	Yes	Health	UK

Appendix 3 List of the papers that contributed to the analysis of stage 1

Category used in the analysis and presentation of findings	Publications that contributed to the analysis of the category
Definition or nature of meta-ethnography and how it differs from other qualitative evidence synthesis approaches	6, 7, 24–26, 44, 46, 49, 51, 53, 55, 57, 58, 90, 93, 94, 96, 100, 101 and 107
Selection of a qualitative evidence synthesis approach (phase 0)	6, 15–17, 24, 26, 34, 46, 49, 53, 54, 57, 98, 101, 102, 107, 112 and 115
Phase 1: getting started	6, 24–26, 28, 46, 47, 53, 54, 57, 90, 93, 98, 105, 111, 113 and 115
Phase 2: deciding what is relevant	6, 17, 25–29, 34, 46, 47, 51, 53, 54, 56, 57, 92, 93, 98, 99, 102, 105, 111, 115, 116 and 118
Phase 3: reading studies	6, 24–26, 29, 46, 49, 50, 52, 53, 57–59, 105, 113 and 114
Phase 4: determining how the studies are related	6, 24–26, 29, 46, 49–51, 53, 55, 56, 90 and 101
Phase 5: translating studies into one another	6, 19, 24–26, 46, 47, 49–58, 90, 92–94, 99, 100, 102, 108, 111, 112 and 114
Phase 6: synthesising translations	6, 19, 24, 25, 46, 51, 53, 55, 57, 58 and 111
Phase 7: expressing the synthesis	6, 17, 25, 26, 46, 52, 53, 55, 57, 58, 97, 101 and 107
Issues of context in meta-ethnography	6, 19, 25–27, 46, 53 and 57
Number of reviewers required to undertake a meta-ethnography	6, 26, 29, 50, 53, 54, 56–58, 91, 92, 96, 98, 105, 107, 113 and 114
Validity, credibility and transferability issues in meta-ethnography	6, 19, 24, 25, 28, 44, 46, 47, 52, 54–58, 91, 110, 112, 114 and 115

Appendix 4 Seminal and poorly reported meta-ethnographies (stage 2.1a)

Publication type	Author	Title	Year	Publication name
Seminal meta-ethnographies				
Journal article	Ayar *et al.*[120]	Examining interpretive studies of science: a meta-ethnography	2015	*Educational Sciences: Theory & Practice*
Journal article	Beach *et al.*[121]	Changing teacher education in Sweden: using meta-ethnographic analysis to understand and describe policy making and educational changes	2014	*Teaching and Teacher Education*
Journal article	Britten *et al.*[46]	Using meta ethnography to synthesise qualitative research: a worked example	2002	*Journal of Health Services & Research Policy*
Book chapter	Britten and Pope[51]	Medicine taking for asthma: a worked example of meta-ethnography	2012	*Synthesizing Qualitative Research*
Journal article	Campbell *et al.*[6]	Evaluating meta-ethnography: systematic analysis and synthesis of qualitative research	2011	*Health Technology Assessment*
Journal article	Campbell *et al.*[24]	Evaluating meta-ethnography: a synthesis of qualitative research on lay experiences of diabetes and diabetes care	2003	*Social Science & Medicine*
Journal article	Garside *et al.*[59]	The experience of heavy menstrual bleeding: a systematic review and meta ethnography of qualitative studies	2008	*Journal of Advanced Nursing*
Journal article	Gomersall *et al.*[122]	A metasynthesis of the self-management of type 2 diabetes	2011	*Qualitative Health Research*
Journal article	Malpass *et al.*[49]	'Medication career' or 'moral career'? The two sides of managing antidepressants: a meta-ethnography of patients' experience of antidepressants	2009	*Social Science & Medicine*
Journal article	Munro *et al.*[9]	Patient adherence to tuberculosis treatment: a systematic review of qualitative research	2007	*PLoS Medicine*
Journal article	Pound *et al.*[11]	Resisting medicines: a synthesis of qualitative studies of medicine taking	2005	*Social Science & Medicine*
Journal article	Toye *et al.*[123]	Patients' experiences of chronic non-malignant musculoskeletal pain: a qualitative systematic review	2013	*British Journal of General Practice*
Journal article	Vittner *et al.*[124]	A meta-ethnography: skin-to-skin holding from the caregiver's perspective	2015	*Advances in Neonatal Care*
Poorly reported meta-ethnographies				
Journal article	Brohan *et al.*[125]	Systematic review of beliefs, behaviours and influencing factors associated with disclosure of a mental health problem in the workplace	2012	*BMC Psychiatry*
Journal article	Cairns and Murray[126]	How do the features of mindfulness-based cognitive therapy contribute to positive therapeutic change? A meta-synthesis of qualitative studies	2013	*Behavioural and Cognitive Psychotherapy*

APPENDIX 4

Publication type	Author	Title	Year	Publication name
Journal article	Child *et al.*[127]	Factors influencing the implementation of fall-prevention programmes: a systematic review and synthesis of qualitative studies	2012	*Implementation Science*
Journal article	Furuta *et al.*[128]	Women's perceptions and experiences of severe maternal morbidity – a synthesis of qualitative studies using a meta-ethnographic approach	2013	*Midwifery*
Journal article	Jensen and Allen[129]	A synthesis of qualitative research on wellness-illness	1994	*Qualitative Health Research*
Journal article	Lundgren *et al.*[130]	'Groping through the fog': a metasynthesis of women's experiences on VBAC (vaginal birth after Caesarean section)	2012	*BMC Pregnancy and Childbirth*
Journal article	Nelson[131]	A meta-synthesis related to infant feeding decision making	2012	*MCN: The American Journal of Maternal and Child Nursing*
Journal article	O'Neill *et al.*[132]	Decision-making regarding total knee replacement surgery: a qualitative meta-synthesis	2007	*BMC Health Services Research*
Journal article	Rudolfsson and Berggren[133]	Nursing students' perceptions on the patient and the impact of the nursing culture: a meta-synthesis	2012	*Journal of Nursing Management*
Journal article	Schmied *et al.*[134]	Contradictions and conflict: a metaethnographic study of migrant women's experiences of breastfeeding in a new country	2012	*BMC Pregnancy and Child Health*
Journal article	Smith *et al.*[135]	Patients' help-seeking experiences and delay in cancer presentation: a qualitative synthesis	2005	*Lancet*
Journal article	Smith *et al.*[136]	Attitudes of people with osteoarthritis towards their conservative management: systematic review and meta-ethnography	2014	*Rheumatology International*
Journal article	Steen *et al.*[137]	Not patient and not visitor: a meta-synthesis fathers' encounters with pregnancy, birth and maternity care	2012	*Midwifery*
Journal article	Thorne and Paterson[138]	Shifting images of chronic illness	1998	*Journal of Nursing Scholarship*
Journal article	Tuthill *et al.*[139]	Commonalities and differences in infant feeding attitudes and practices in the context of HIV in sub-Saharan Africa: a meta synthesis	2013	*AIDS Care*
Journal article	Tuquero[140]	A meta-ethnographic synthesis of support services in distance learning programs	2011	*Journal of Information Technology Education*

Appendix 5 List of meta-ethnographies reviewed by professional end-users

Interview guide (stage 2.1b)

The eMERGe project (www.stir.ac.uk/health-sciences-sport/research/groups/emerge/; accessed 26 March 2018) is NIHR funded and aims to develop a reporting guideline and standards for a type of qualitative evidence synthesis called meta-ethnography. Meta-ethnography is a systematic way to bring together evidence on a specific topic from many existing qualitative studies. In addition to pooling together study findings, meta-ethnography compares and contrasts the findings from each study in order to provide new insights and reach new interpretations or conclusions on a specific topic.

Published meta-ethnographies can vary in the quality of reporting, so it can be difficult to fully evaluate the evidence they provide. Unlike quantitative systematic reviews, there is no specific guideline on how a meta-ethnography should be reported. We aim to develop such a guideline and standards and, as part of this, we wish to include the views of potential 'end-users' of meta-ethnography (i.e. those people or organisations likely to use qualitative evidence to inform policy and practice).

The aim of this interview

We want to collect your views on the meta-ethnographies you have been provided with in order to identify those areas of meta-ethnography reporting that are important to people or organisations likely to use qualitative evidence to inform policy and practice.

TABLE 7 Meta-ethnographies reviewed by professional end-users (stage 2.1b)

Journal article (see *Appendix 4* for full details of publications)	Seminal	Lower quality	Number of organisations providing comment
Vittner *et al.*[124]	✓		3
Campbell *et al.*[6]	✓		3
Britten *et al.*[46]	✓		1
Gomersall *et al.*[122]	✓		2
Malpass *et al.*[49]	✓		2
Pound *et al.*[11]	✓		2
Garside *et al.*[59]	✓		1
Lundgren *et al.*[130]		✓	2
Child *et al.*[127]		✓	1
Furuta *et al.*[128]		✓	1
Cairns and Murray[126]		✓	2
Brohan *et al.*[125]		✓	2
Smith *et al.*[135]		✓	3
Rudolfsson and Berggren[133]		✓	1
Smith *et al.*[136]		✓	1
Steen *et al.*[137]		✓	1

What we want your views on

A) General response to the paper

- What were your initial thoughts/reactions to the paper?
- Overall, how clear and useful was the way the paper was reported?
- How easily could you make sense of what the authors had done and found?
- Which bits, if any, were unclear or confusing?
- How could it have been improved?
- Was anything missing from the report?

B) Views on the reports' results and implications for policy and practice

- Were the results/findings clearly reported?
- Were the study's implications for policy and practice clearly reported?
- How much confidence would you have in using the findings in your professional capacity?
- What, if anything, is missing from the report that you would need to know to be able to implement the evidence/findings?
- What, if anything, would you change about the way the findings and conclusions were presented?

Appendix 6 Search details for the audit sample of meta-ethnography publications (stage 2.2)

Search terms and databases searched

SCOPUS (inception to date)

- (ABS (meta ethnography) OR TITLE (meta ethnography) OR ABS (metaethnography) OR TITLE (metaethnography))

MEDLINE (1946 to date) and PsycINFO (1806 to date)

- ((meta ethnography) OR (metaethnography)).ti,ab

EBSCOhost Cumulative Index to Nursing and Allied Health Literature (inception to date)

- TI (meta ethnography OR metaethnography) OR AB (meta ethnography OR metaethnography)

International Bibliography of Social Sciences (inception to date)

- ab(metaethnography OR meta ethnography) OR ti(metaethnography OR meta ethnography)

Web of Science Core Collection (inception to date)

Also searched

Cochrane database of qualitative evidence syntheses

- Terms used: metaethnography, meta ethnography, metaethnographic, meta ethnographic, Noblit.
- Registers are populated by a keyword strategy of Web of Science, Cumulative Index to Nursing and Allied Health Literature Scopus and PubMed, plus Google Scholar alerts and citation searches of key works (which includes Noblit and Hare).
- Inclusion is from 1988 onwards.

Appendix 7 Standards met for phases 0–7 in audit sample of meta-ethnographies

TABLE 8 Audit standards with percentages for phase 0

Meta-ethnography phase 0	Standard number	Reporting criteria	Meta-ethnography publications, *n* (%)	
Number of standards applicable to any meta-ethnography: 7 **Number of standards applicable only to some meta-ethnographies: 0**			**Standard met in full or in part**	**Standard not met or not reported**
Phase 0: choosing meta-ethnography	1	Studies report why meta-ethnography was considered most appropriate QES methodology	14 (73.6)	5 (26.3)
	2	Reviewers state their initial intention was to produce a new theory, interpretation or model (even if this was not ultimately possible)	12 (63.1)	7 (36.8)
	3	Reviewers state the type of social explanation(s) review findings are expected to produce	17 (89.4)	2 (10.5)
	4	Reviewers state type of social explanation(s) review is expected to produce in line with Turner's theory[45]	2 (10.5)	17 (89.4)
	5	The qualitative expertise of reviewers is stated	0 (0)	19 (100)
	6	Review context is stated (e.g. any funding sources, time scales for meta-ethnography), findings to inform guideline development, Health Technology Assessment or promote evidence implementation	15 (78.9)	4 (21.0)
	7	Reviewer(s) perspectives contributing to this interpretive process is/are stated [e.g. epistemological position(s), positions held, academic disciplines, organisation(s) or health bodies represented, cultural diversity]	7 (36.8)	12 (63.1)

QES, qualitative evidence synthesis.

TABLE 9 Audit standards with percentages for phase 1

Meta-ethnography phase 1	Standard number	Reporting criteria	Meta-ethnography publications, *n* (%)	
Number of standards applicable to any meta-ethnography: 5 Number of standards applicable only to some meta-ethnographies: 4 (shaded green)			Standard met in full or in part	Standard not met or not reported
Phase 1: getting started with meta-ethnography	8	Information (e.g. in a literature review) on the availability of qualitative data that potentially could be synthesised is provided	10 (52.6)	9 (47.3)
	9	A statement on the research/knowledge gap to be filled by meta-ethnography (or an updated meta-ethnography) is given	18 (94.7)	1 (5.2)
	10	Explicitly stated review aim(s)	19 (100)	0 (0)
	11	Explicitly stated review questions or objectives	6 (31.5)	13 (68.4)
	12	Review aim(s) and/or questions congruent with meta-ethnography (e.g. reviewers intend to produce new interpretation, model or theory)	12 (63.1)	7 (36.8)
	13	If the meta-ethnography approach was reported as adapted/modified: Adaptations/ modifications should be clearly described	1	–
	14	If the meta-ethnography approach was reported as adapted/modified, a rationale for any adaptations or modifications is given	1	–
	15	If the meta-ethnography approach was reported as adapted/modified, reviewers state whether or not they considered using another QES approach rather than adapting/modifying meta-ethnography	0	–
	16	If reviewers reported changing/refining their initial aims and/or questions following literature review, details of changes or refinements to the initial aims and/or research questions are given	1	–

QES, qualitative evidence synthesis.

TABLE 10 Audit standards with percentages for phase 2

Meta-ethnography phase 2	Standard number	Reporting criteria	Meta-ethnography publications, *n* (%)	
Number of standards applicable to any meta-ethnography: 17 Number of standards applicable only to some meta-ethnographies: 12 (shaded green)			Standard met in full or in part	Standard not met or not reported
Phase 2: deciding what is relevant	17	A statement(s) regarding the choice of overall search strategy is given (e.g. how this was informed by review purpose and intended audience)	10 (52.6)	9 (47.3)
	18	Details on the electronic database(s) search strategies used (e.g. thesaurus, free text and broad-based terms)	13 (68.4)	6 (31.5)
	19	Details on the electronic databases searched	19 (100)	0 (0)
	20	Details on the searching approach(es) used (e.g. comprehensive, purposive or combined)	19 (100)	0 (0)
	21	Details on the alternative searching methods (e.g. if e-databases were not used)	5 (26.3)	14 (73.6)

TABLE 10 Audit standards with percentages for phase 2 (*continued*)

Meta-ethnography phase 2	Standard number	Reporting criteria	Meta-ethnography publications, *n* (%)	
Number of standards applicable to any meta-ethnography: 17 Number of standards applicable only to some meta-ethnographies: 12 (shaded green)			Standard met in full or in part	Standard not met or not reported
	22	Details of all the data search processes and procedures including number of reviewer(s) involved in literature searching	6 (31.5)	13 (68.4)
	23	Details of all the data search processes and procedures including which reviewer(s) were involved in literature searching	5 (26.3)	14 (73.6)
	24	Details of all the data search processes and procedures including whether or not reviewers worked independently and then collaboratively to review searching decisions	6 (31.5)	13 (68.4)
	25	Details of all the data search processes and procedures including if complementary searching conducted (e.g. hand and/or internet searches and/or original authors were contacted)	17 (89.4)	2 (10.5)
	26	Details of all the data search processes and procedures including years data search covered	16 (84.2)	3 (15.7)
	27	Details of all the data search processes and procedures including rationale for years data search covered	6 (31.5)	13 (68.4)
	28	Details of all the data search processes and procedures including time period over which searches were conducted (e.g. weeks/months that reviewers took to search for studies)	4 (21.0)	15 (78.9)
	29	Details of all the data search processes and procedures including whether or not potential studies were screened by titles and abstracts prior to reading full texts	15 (78.9)	4 (21.0)
	30	Details of all the data search processes and procedures including rationale for stopping searching is provided	0 (0)	19 (100)
	31	Detailed study inclusion/exclusion criteria, for example whether or not: • only peer-reviewed data or grey literature also used • only traditional qualitative data (e.g. focus groups/interviews) or whether or not free-text survey data used too • studies from different traditions/approaches/methods of inquiry included/excluded • purely descriptive studies were excluded (i.e. those reporting only first order constructs) • specific data/publication time periods were used • studies were excluded on the basis of a specific context • study inclusion/exclusion were based solely on study narrative or whether or not original authors were contacted for more information/data	19 (100)	0 (0)

continued

TABLE 10 Audit standards with percentages for phase 2 (*continued*)

Meta-ethnography phase 2	Standard number	Reporting criteria	Meta-ethnography publications, *n* (%)	
Number of standards applicable to any meta-ethnography: 17 Number of standards applicable only to some meta-ethnographies: 12 (shaded green)			Standard met in full or in part	Standard not met or not reported
	32	Explicit information on the number of qualitative studies found for inclusion in meta-ethnography	18 (94.7)	1 (5.2)
	33	Explicit information on the number of studies actually synthesised	19 (100)	0 (0)
	34	If initial searches were updated later, details are provided	0	–
	35	Appropriate literature searching reporting formats (e.g. PRISMA, STARLITE[89]) if the meta-ethnography used comprehensive literature searches in the style of quantitative systematic reviews	11	–
	36	If reviewers used a sample rather than all studies meeting inclusion/exclusion criteria: details of the type of sample (e.g. exhaustive or purposive) are provided	3	–
	37	If reviewers used a sample rather than all studies meeting inclusion/exclusion criteria, a rationale for the type of sample used is given (e.g. only heterogeneous studies were included)	3	–
	38	If the review limited included studies to a maximum (e.g. 50), the maximum number is clearly stated	0	–
	39	If the review limited included studies to a maximum (e.g. 50), the rationale for this maximum number is stated	0	–
	40	If the review limited included studies to a maximum (e.g. 50), studies excluded because maximum number was exceeded are identified	0	–
	41	If included studies were quality appraised, the type of quality processes/tools/methods used are specified	15	–
	42	If included studies were quality appraised, a rationale is given for the choice of quality assessment processes	8	–
	43	If included studies were quality appraised, it is clear which reviewer(s) conducted the quality appraisal	6	–
	44	If included studies were quality appraised, the outcome of any quality appraisal processes are provided	13	–
	45	If included studies were quality appraised, any studies excluded following quality appraisal are clearly identified	5	–

TABLE 11 Audit standards with percentages for phase 3

Meta-ethnography phase 3	Standard number	Reporting criteria	Meta-ethnography publications, *n* (%)	
Number of standards applicable to any meta-ethnography: 13 Number of standards applicable only to some meta-ethnographies: 5 (shaded green)			Standard met in full or in part	Standard not met or not reported
Phase 3: reading included studies	46	How many reviewers read full papers/reports is stated	10 (52.6)	9 (47.3)
	47	Whether or not papers were read in full is stated	14 (73.6)	5 (26.3)
	48	What order papers were read in (e.g. starting point for reading was an index paper or a particular year)	3 (15.7)	16 (84.2)
	49	Why that reading order was chosen is specified	0 (0)	19 (100)
	50	Data extraction processes: which reviewer(s) extracted data for participant and context details is stated	5 (26.3)	14 (73.6)
	51	Which reviewer(s) extracted data for first- and second-order constructs is stated	7 (36.8)	12 (63.1)
	52	Where data were extracted from is stated (e.g. if used findings in original studies or findings and discussion sections, etc.)	8 (42.1)	11 (57.8)
	53	Whether or not data were extracted independently by reviewers is stated	9 (47.3)	10 (52.6)
	54	Whether or not extracted data were checked for accuracy is stated	6 (31.5)	13 (68.4)
	55	What order data were extracted is stated in (e.g. chronological or started with index paper)	4 (21.0)	15 (78.9)
	56	Reason why data extracted in that order is stated	0 (0)	19 (100)
	57	Where data were extracted to is stated (e.g. into Microsoft Word documents, diagrams or qualitative data analysis software)	11 (57.8)	8 (42.1)
	58	The context (characteristics or summaries) of included studies is provided for readers in narrative and/or tabular form and includes key information [e.g. original study aim(s) re: study country/countries, health setting, any funding; data collection methods (e.g. focus groups); details of participants (e.g. number, age, gender, socioeconomic status); any significant contextual developments impacting on the included papers (e.g. launch of a new health strategy or an international public health outbreak)]	18 (94.7)	1 (5.2)
	59	Studies excluded on detailed reading because their contexts are clearly identified	2	–
	60	Studies excluded on detailed reading because their contexts have an explanation provided for their exclusion (e.g. studies not homogeneous)	3	–
	61	Studies excluded on full-text reading because of the lack of rich conceptually deep data are clearly identified	2	–

continued

TABLE 11 Audit standards with percentages for phase 3 (*continued*)

Meta-ethnography phase 3	Standard number	Reporting criteria	Meta-ethnography publications, *n* (%)	
Number of standards applicable to any meta-ethnography: 13 Number of standards applicable only to some meta-ethnographies: 5 (shaded green)			Standard met in full or in part	Standard not met or not reported
	62	Studies excluded on full-text reading because of the lack of rich conceptually deep data have a rationale provided for these exclusions (e.g. survey data only)	3	–
	63	Studies excluded on full text reading because of the lack of rich conceptually deep data: reviewers state whether or not authors of these studies were contacted for additional data (e.g. full study reports)	1	–

TABLE 12 Audit standards with percentages for phase 4

Meta-ethnography phase 4	Standard number	Reporting criteria	Meta-ethnography publications, *n* (%)	
Number of standards applicable to any meta-ethnography: 6 Number of standards applicable only to some meta-ethnographies: 0			Standard met in full or in part	Standard not met or not reported
Phase 4: determining how studies are related	64	Details on how multiple perspectives were introduced into the translation and synthesis processes (e.g. if there was a single reviewer, was their interpretation presented to a wider group?)	7 (36.8)	12 (63.1)
	65	How reviewers decided how studies were related: the basis on which they determined how studies were related is given (e.g. by theoretical approach and/or in metaphors, aims, focus, context)	15 (78.9)	4 (21.0)
	66	How reviewers decided how studies were related: whether or not studies were excluded during phase 4 and, if so, why (e.g. concepts or metaphors could not be deciphered or identified, theoretical approach or meta-ethnography focus)	2 (10.5)	17 (89.4)
	67	How reviewers decided how studies were related: report states how studies were compared/ juxtaposed to decide how they relate	14 (73.6)	5 (26.3)
	68	How reviewers decided how studies were related: report states how studies relate to each other [e.g. are the studies commensurable (about roughly similar things)]	15 (78.9)	4 (21.0)
	69	How reviewers decided how studies were related: authors' concepts/themes/metaphors (second-order constructs) (i.e. raw data) from original studies are clearly reported (e.g. in grids/tables, visual diagrams/maps)	16 (84.2)	3 (15.7)

TABLE 13 Audit standards with percentages for phase 5

Meta-ethnography phase 5	Standard number	Reporting criteria	Meta-ethnography publications, *n* (%)	
Number of standards applicable to any meta-ethnography: 20 Number of standards applicable only to some meta-ethnographies: 0			Standard met in full or in part	Standard not met or not reported
Phase 5: translating studies	70	Translation processes (reciprocal and/or refutational): the different levels of interpretation (e.g. first-, second- and third-order constructs) within the translation/synthesis process are clearly differentiated for readers	16 (84.2)	3 (15.7)
	71	Translation processes (reciprocal and/or refutational): reviewers report steps taken to preserve context and meaning of the relationships between concepts within and across studies	8 (42.1)	11 (57.8)
	72	Translation processes (reciprocal and/or refutational): the order in which studies were translated/synthesised	8 (42.1)	11 (57.8)
	73	Translation processes (reciprocal and/or refutational): the reason for the order in which studies were translated/synthesised is given	4 (21.0)	15 (78.9)
	74	Translation processes (reciprocal and/or refutational): state which kind(s) of translation or synthesis was done – reciprocal, refutational, and/or line of argument	17 (89.4)	2 (10.5)
	75	Translation processes (reciprocal and/or refutational): methods used to translate concepts from one study into another are specific and clearly stated	12 (63.1)	7 (36.8)
	76	Translation processes (reciprocal and/or refutational): reviewers involved in translation are identified	5 (26.3)	14 (76.3)
	77	Translation processes (reciprocal and/or refutational): studies included within translation are clearly identified	19 (100)	0 (0)
	78	Translation processes (reciprocal and/or refutational): a rationale is provided for studies excluded from translation	2 (10.5)	17 (89.4)
	79	Translation processes (reciprocal and/or refutational): the outcome of the translation is given – this could be in table, grid format or narrative	18 (94.7)	1 (5.2)
	80	Refutational analysis: reviewers state in which phase(s)/at which point refutational translation was considered	11 (57.8)	8 (42.1)
	81	Refutational analysis: reviewers state whether or not social and cultural factors were considered during refutational translation (e.g. whether or not age/gender of participants, settings/contexts may have contributed to disconfirming cases or whether or not reviewers considered how findings might be interpreted from different cultural or social perspectives)	10 (52.6)	9 (47.7)

continued

TABLE 13 Audit standards with percentages for phase 5 (*continued*)

Meta-ethnography phase 5	Standard number	Reporting criteria	Meta-ethnography publications, *n* (%)	
Number of standards applicable to any meta-ethnography: 20 Number of standards applicable only to some meta-ethnographies: 0			Standard met in full or in part	Standard not met or not reported
	82	Refutational analysis: reviewers state if refutational translation was not possible and why	2 (10.5)	17 (89.4)
	83	LOA synthesis: reviewers state what they mean by LOA	10 (52.6)	9 (47.7)
	84	LOA synthesis: reviewers state which reviewer(s) were involved in the LOA	7 (36.8)	12 (63.1)
	85	LOA synthesis: reviewers state which studies were included in the LOA	14 (73.6)	5 (26.3)
	86	LOA synthesis: reviewers state explicitly and transparently steps taken in LOA	9 (47.7)	10 (52.6)
	87	LOA synthesis: reviewers state whether or not social and cultural factors were considered within the LOA	6 (31.5)	13 (68.4)
	88	LOA synthesis: reviewers state clearly their LOA findings; this could be in text or grid or table format	15 (78.9)	4 (21.0)
	89	LOA synthesis: reviewers state if LOA was not possible and why not	0 (0)	19 (100)

TABLE 14 Audit standards with percentages for phase 6

Meta-ethnography phase 6	Standard number	Reporting criteria	Meta-ethnography publications, *n* (%)	
Number of standards applicable to any meta-ethnography: 3 Number of standards applicable only to some meta-ethnographies: 2			Standard met in full or in part	Standard not met or not reported
Phase 6: synthesising translations	90	Synthesising translations: reviewers state the methods used to develop overarching concepts ('synthesised translations')	13 (68.4)	6 (31.5)
	91	Synthesising translations: reviewers state their new (third order) interpretation(s) in text and/or visually (e.g. as a model, theory or film)	19 (100)	0 (0)
	92	Synthesising translations: reviewers state which reviewer(s) were involved in this process	8 (42.1)	11 (57.8)
	93	Synthesising translations: reviewers state if development of a new theory, interpretation or model was not possible and why not	1	–
	94	If the meta-ethnography included lots of studies (≥ 50), reviewers state if they adapted their methods to remain grounded with original data/ avoid losing conceptual richness (e.g. if they translated and synthesised original studies in clusters?)	1	–

TABLE 15 Audit standards with percentages for phase 7

Meta-ethnography phase 7	Standard number	Reporting criteria	Meta-ethnography publications, *n* (%)	
Number of standards applicable to any meta-ethnography: 15 **Number of standards applicable only to some meta-ethnographies: 0**			**Standard met in full or in part**	**Standard not met or not reported**
Phase 7: expressing the synthesis	95	Include the term meta ethnography (or meta-ethnographic approach) in the title, abstract and/or keywords	17 (89.4)	2 (10.5)
	96	Provide clear abstracts for readers: number of included studies stated	17 (89.4)	2 (10.5)
	97	Provide clear abstracts for readers: number of studies synthesised stated	16 (84.2)	3 (15.7)
	98	Provide clear abstracts for readers: differentiate reporting of primary study findings from new interpretation	16 (84.2)	3 (15.7)
	99	Provide clear abstracts for readers: connect key findings to policy or practice	17 (89.4)	2 (10.5)
	100	State target audience(s) for findings	11 (57.8)	8 (42.1)
	101	Present interpretive findings	19 (100)	0 (0)
	102	When quotations are used, state where they originate from (e.g. original study participants, original study authors, reviewer's own field notes)	16 (84.2)	3 (15.7)
	103	Present to readers translations and syntheses clearly related to the original data	17 (89.4)	2 (10.5)
	104	State how reviewers encouraged reflexivity in the development of their new interpretation, for example deliberated their findings from different perspectives (e.g. their target audience, epistemology, academic discipline, health background, culturally, etc.)	5 (26.3)	14 (76.3)
	105	State how reviewers took steps to keep their interpretations grounded with original data	6 (31.5)	13 (68.4)
	106	Highlight limitations of the review to readers	16 (84.2)	3 (15.7)
	107	Discuss how limitations of the review may have affected validity and reliability, for example: • the order of studies reviewed and synthesised • impact of any sampling (e.g. if only used studies with similar methods or epistemology) • influence of team member backgrounds • context of original studies • context of review (e.g. sole reviewer or funding) • number of included studies affected translation and/or synthesis • limitations of the primary studies	13 (68.4)	6 (31.5)
	108	Possible limitations of the new theory, interpretation or model (e.g. if findings apply only to certain groups, countries)	13 (68.4)	6 (31.5)
	109	Clearly indicate how findings relate to potential end-users (e.g. application of findings to policy and/or practice)	17 (89.4)	2 (10.5)

Appendix 8 Consensus ratings from the final round (round 3) of the eDelphi studies

TABLE 16 Consensus ratings of the final round (round 3) from both meta-ethnography expert and key stakeholder expert groups

		Final round consensus[a]			
		Meta-ethnography expert group		Key stakeholder expert group	
Item	Group	Number of important/ very important responses	%	Number of important/ very important responses	%
Include the term 'meta-ethnography' in the title, abstract and/or keywords	Abstract	38/39	97	20/21	95
While acknowledging publication requirements and house style, the abstract should ideally contain brief details of the study's background; aim and research question or objectives; search strategy; methods of selection, appraisal, analysis and synthesis of primary study accounts	Abstract	38/39	97	22/23	96
While acknowledging publication requirements and house style, the abstract should ideally contain: main findings including a description of the model, conceptual framework, theory and the number of studies synthesised	Abstract	39/39	100	23/23	100
While acknowledging publication requirements and house style, the abstract should ideally differentiate between reported findings of the primary studies and of the synthesis	Abstract	25/39	64	18/23	78
While acknowledging publication requirements and house style, the abstract should ideally contain implications for policy, practice and/or theory	Abstract	33/39	85	21/22	95
State the research or knowledge gap to be filled by the synthesis	Introduction	39/39	100	23/23	100
Describe the availability of qualitative data that potentially could be synthesised (e.g. from an exploratory scoping of literature, if done)	Introduction	29/39	74	21/22	95
Explicitly state review aim(s) compatible with the intention to produce a new theory, new conceptual framework, configuration (interpretation) of data or new model and give details of any refinements to the initial aim(s)	Introduction	37/39	97	23/23	100
Explicitly state review question(s) (or objectives) and give details of any changes or refinements to the initial question(s)/objectives	Introduction	36/39	92	23/23	100

continued

TABLE 16 Consensus ratings of the final round (round 3) from both meta-ethnography expert and key stakeholder expert groups (*continued*)

Item	Group	Final round consensus[a]			
		Meta-ethnography expert group		Key stakeholder expert group	
		Number of important/ very important responses	%	Number of important/ very important responses	%
State the context of the synthesis (e.g. any funding sources for the synthesis; time scales for the synthesis conduct; political, cultural, social, policy or other relevant contexts). Refer to existing frameworks for guidance on how to specify the review context	Introduction	22/39	56	23/23	100
State why meta-ethnography was considered the most appropriate qualitative synthesis approach and whether or not use of other approaches was considered	Method	31/39	79	23/23	100
Approach to searching. Indicate whether or not the search(es) was (were) pre-planned (comprehensive search strategies to seek all available studies) or iterative (to seek all available concepts until theoretical saturation is achieved)	Method	39/39	100	23/23	100
State the rationale for the literature search strategy (e.g. how this was informed by purpose of the synthesis). Refer to existing frameworks for guidance on how to determine if the context in primary study accounts is sufficiently relevant to the context specified in the review question	Method	35/39	90	22/22	100
Searching processes. While considering specific requirements of the journal or other publication outlet, state and provide a rationale for how the literature searching was done. Provide details on all the sources accessed for information in the review (e.g. use of any electronic databases, grey literature databases, relevant organisational websites, experts, information specialists, generic web searches, hand searching, reference lists). Where searching in electronic databases has taken place, the details should include, for example, name of database, search terms, dates of coverage and date last searched. Provide the rationale for selection of the data sources	Method	39/39	100	23/23	100
If iterative or expansive searches were used, provide a rationale for deciding when to stop searching	Method	39/39	100	23/23	100
Rationale for years covered by data searches	Method	37/39	95	22/23	96
Study screening methods. Describe the process of study screening (e.g. by title, abstract and full-text review, number of reviewers who screened studies)	Method	38/39	97	22/22	100
Study selection. Specify the inclusion/exclusion criteria (e.g. in terms of population, language, year limits, type of publication, study type, methodology, epistemology, country, setting, type of qualitative data, methods, conceptual richness of data, etc.). Refer to existing frameworks for guidance on how to determine if the context in primary study accounts is sufficiently relevant to the context specified in the review question	Method	38/39	97	23/23	100

TABLE 16 Consensus ratings of the final round (round 3) from both meta-ethnography expert and key stakeholder expert groups (*continued*)

Item	Group	Final round consensus[a]			
		Meta-ethnography expert group		Key stakeholder expert group	
		Number of important/ very important responses	%	Number of important/ very important responses	%
State if and how quality appraisal of primary study accounts was conducted and give a rationale for this decision	Method	38/39	97	23/23	100
State whether papers were read in full or in part and specify the reading process or strategy used	Method	37/39	95	22/23	96
Data extraction methods and process. Indicate which sections of the primary study accounts were extracted and analysed (e.g. if used data from anywhere in the publication or just findings and discussion sections, etc.)	Method	35/38	92	23/23	100
Data extraction methods and process. State how the extracted data from the primary studies were recorded (e.g. how was a computer software program or other method used). If publication requirements prevent full reporting, state where readers can access these data in full (e.g. a project website, online files)	Method	38/39	97	21/22	95
Data extraction methods and process. State in which order primary study accounts had data extracted from them (e.g. chronological or starting with an 'index' paper, and rationale for that order)	Method	30/39	77	14/21	67
Contributions of reviewers. Identify who was involved in literature searching and screening, reading of studies, data extraction, translation and synthesis. State whether or not processes were conducted independently by reviewers and whether or not data were checked for accuracy (e.g. for screening/data extraction). (Depending on publication requirements, this information could be provided in the 'Methods' or the 'Author contributions' section)	Method	35/38	92	22/23	96
Reviewers should state what they understand by the synthesis terminology they have used (whichever terms are used) (e.g. metaphor, concept, theme, first-, second- and third-order constructs, LOA synthesis, refutational translation, reciprocal translation)	Method	38/39	97	21/22	95
Determining how studies are related. State which aspect(s) of the studies was (were) compared in order to determine how they are related (e.g. the theoretical approach and/or concepts/metaphors, aims, focus, contexts, overarching explanations for the phenomenon). State how the studies were compared (i.e. the methods and process of comparison). State how studies relate to each other (e.g. reciprocally, refutationally, and/or are about different aspects of the topic)	Method	39/39	100	22/22	100

continued

TABLE 16 Consensus ratings of the final round (round 3) from both meta-ethnography expert and key stakeholder expert groups (*continued*)

Item	Group	Final round consensus[a]			
		Meta-ethnography expert group		Key stakeholder expert group	
		Number of important/ very important responses	%	Number of important/ very important responses	%
Translation and synthesis processes. Clearly differentiate between the different levels of interpretation in the translation and synthesis process by: listing the data from primary studies to be synthesised (concepts, themes, metaphors, second-order constructs, explanations); stating the translated and synthesised concepts developed by reviewers (this could be in a table, grid and/or narrative format); showing the inter-relationships between the data from primary studies and the reviewers' concepts (e.g. in grids, tables, visual diagrams). Depending on publication requirements, this information could be provided across the methods and findings sections and elsewhere (e.g. project website, online files)	Method	39/39	100	20/20	100
Translation and synthesis processes. Report steps taken to preserve the context and meaning of the relationships between concepts within and across studies. Refer to existing frameworks for guidance on how to determine the context of primary study accounts	Method	38/39	97	22/22	100
Translation and synthesis processes. State the order in which studies were translated/synthesised (e.g. chronologically from the earliest or most recent) and the rationale for this	Method	28/39	72	11/21	52
Translation and synthesis processes. State whether the translation conducted was reciprocal or refutational, or both (depending on how reviewers have conceptualised reciprocal and refutational translation). State if refutational synthesis was not conducted and say why not	Method	34/39	87	17/18	94
Translation and synthesis processes. Translation methods used (for reciprocal and/or refutational translation) to translate meaning from one study into another are specific and clearly stated (e.g. give one or more examples of how this was done)	Method	38/39	97	22/22	100
Translation and synthesis processes. State whether or not and how the contexts of the primary study accounts were considered throughout the analysis and synthesis process. Refer to existing frameworks for guidance on how to determine the context of primary study accounts	Method	32/39	82	22/22	100
Translation and synthesis processes (synthesising translations). State the methods used to develop overarching concepts ('synthesised translations')	Method	39/39	100	22/22	100
Translation and synthesis processes. State if a LOA synthesis was conducted and if not, say why not	Method	33/39	85	21/21	100
Translation and synthesis processes. State explicitly how the LOA synthesis was conducted	Method	37/39	95	20/20	100

TABLE 16 Consensus ratings of the final round (round 3) from both meta-ethnography expert and key stakeholder expert groups (*continued*)

Item	Group	Final round consensus[a]			
		Meta-ethnography expert group		Key stakeholder expert group	
		Number of important/ very important responses	%	Number of important/ very important responses	%
If a single reviewer conducted the synthesis, give details of how potential alternative interpretations or explanations were considered in the translation and synthesis processes	Method	38/39	97	23/23	100
Clearly describe and give a rationale for any adaptations or modifications to Noblit and Hare's[25] approach	Method	32/39	82	20/20	100
Translation and synthesis processes (synthesising translations). Describe the new theory, conceptual framework, model, configuration or interpretation of data developed from the synthesis. If development of a new theory, conceptual framework or model was not possible, state why not	Method	38/39	97	23/23	100
Provide details on the number of primary study accounts assessed for eligibility and included in the review with reasons for exclusion at each stage as well as an indication of their source of origin (for example, from searching databases, reference lists and so on). You may consider using the example templates (which are likely to need modification to suit the data) that are provided. If publication requirements prevent full reporting, state where readers can access these data in full (e.g. a project website, online files)	Findings	37/38	97	22/23	96
State how many and which studies were synthesised	Findings	39/39	100	23/23	100
Study characteristics. Present the characteristics of the included studies (e.g. year of publication, country, population, number of participants, data collection, methodology, analysis, research questions, setting, study funder, participant characteristics relevant to the aim such as, but not limited to, gender, age, socioeconomic status). If publication requirements prevent full reporting, state where readers can access these data in full (e.g. a project website, online files)	Findings	37/39	95	23/23	100
Study characteristics. Describe the context of included studies (depending on which contexts are relevant to the aim). Refer to existing frameworks for guidance on how to specify the context of primary study accounts	Findings	38/39	97	22/22	100
Study selection results. Identify the number of studies screened and provide reasons for study exclusion (e.g. for comprehensive searching provide numbers of studies screened and reasons for exclusion indicated in a figure/flow chart; for iterative searching describe reasons for study exclusion and inclusion based on modifications to the research question and/or contribution to theory development)	Findings	37/39	95	22/22	100

continued

TABLE 16 Consensus ratings of the final round (round 3) from both meta-ethnography expert and key stakeholder expert groups (*continued*)

Item	Group	Final round consensus[a]			
		Meta-ethnography expert group		Key stakeholder expert group	
		Number of important/ very important responses	%	Number of important/ very important responses	%
Translation and synthesis processes (synthesising translations). State the interpretive findings of the translation, the synthesis of translations, the LOA synthesis, and any new model, conceptual framework or theory developed in a narrative, grid, table and/or visually (e.g. as an illustration, diagram or film)	Findings	39/39	100	20/20	100
When quotations are used, state where they originate from (e.g. primary study participants, primary study authors, reviewer's own field notes)	Findings	38/39	97	23/23	100
Summarise the main interpretive findings of the translation and synthesis, taking into account the synthesis objective(s), review question(s), focus and intended audience(s)	Discussion	38/38	100	22/23	96
State the qualitative research expertise of reviewers. (Depending on publication requirements, this information could be provided in a different section, e.g. the 'Author contributions' section)	Discussion	20/39	51	15/23	65
State reviewer(s)' background(s) or perspectives that may have influenced the interpretive process such as, but not limited to, epistemological position(s), professional position(s) held, academic discipline, organisation(s) or professional bodies represented. [Depending on publication requirements, this information could be provided in a different section (e.g. the 'Author contributions' section)]	Discussion	33/39	85	21/23	91
Discuss the strengths and limitations of the synthesis and its findings. These should include (but need not be restricted to) (a) consideration of all the processes in conduct of the synthesis and (b) comment on the characteristics and content of the primary studies supporting the synthesis findings and how these may have affected the synthesis findings	Discussion	39/39	100	23/23	100
Identify any areas where further research is needed	Discussion	38/39	97	23/23	100
Where applicable, compare and contrast the synthesis findings (concept, model, theory) with the existing literature (e.g. other syntheses on the same topic)	Discussion	38/39	97	23/23	100
State the implications of the synthesis findings for policy, practice and/or theory	Discussion	37/39	95	23/23	100
Provide details of funding source (if any) for the synthesis, the role played by the funder (if any) and any conflicts of interests of the reviewers	Discussion	37/39	95	23/23	100
Introduction: rationale for the synthesis	Headings	36/39	92	22/22	100
Introduction: objectives, focus and context of the synthesis	Headings	38/39	97	22/22	100
Methods: rationale for using meta-ethnography	Headings	35/39	90	22/22	100

TABLE 16 Consensus ratings of the final round (round 3) from both meta-ethnography expert and key stakeholder expert groups (*continued*)

Item	Group	Final round consensus[a]			
		Meta-ethnography expert group		Key stakeholder expert group	
		Number of important/ very important responses	%	Number of important/ very important responses	%
Methods: searching processes and rationale for these	Headings	38/39	97	22/22	100
Methods: selection and appraisal of primary study accounts	Headings	37/39	95	22/22	100
Methods: reading of primary study accounts and data extraction	Headings	37/39	95	22/22	100
Methods: analysis and synthesis processes: determining how studies are related; translating studies; synthesising translations; LOA synthesis; model, conceptual framework or theory generation					
Findings: primary study flow diagram	Headings	38/39	97	21/21	100
Findings: primary study characteristics	Headings	35/39	90	20/21	95
Findings: main findings	Headings	38/39	97	22/22	100
Discussion: summary of findings	Headings	38/39	97	22/22	100
Discussion: reflexivity	Headings	35/39	90	22/22	100
Discussion: strengths, limitations and future research directions	Headings	38/39	97	20/20	100
Discussion: comparison with existing literature	Headings	37/39	95	22/22	100
Discussion: conclusion, recommendations and implications for policy and practice	Headings	38/39	97	22/22	100
Discussion: funding and conflicts of interest	Headings	33/38	86	22/22	100

a The levels of consensus were calculated on the number of actual responses to each item. Participants had the opportunity to indicate that they had no expertise on specific items.

Appendix 9 Final guidance table of reporting criteria that are common to all meta-ethnographies

No.	Criteria headings	Reporting criteria
Phase 1: selecting meta-ethnography and getting started		
Introduction		
1	Rationale and context for the meta-ethnography	Describe the gap in research or knowledge to be filled by the meta-ethnography, and the wider context of the meta-ethnography
2	Aim(s) of the meta-ethnography	Describe the meta-ethnography aim(s)
3	Focus of the meta-ethnography	Describe the meta-ethnography question(s) (or objectives)
4	Rationale for using meta-ethnography	Explain why meta-ethnography was considered the most appropriate qualitative synthesis methodology
Phase 2: deciding what is relevant		
Methods		
5	Search strategy	Describe the rationale for the literature search strategy
6	Search processes	Describe how the literature searching was carried out and by whom
7	Selecting primary studies	Describe the process of study screening and selection, and who was involved
Findings		
8	Outcome of study selection	Describe the results of study searches and screening
Phase 3: reading included studies		
Methods		
9	Reading and data extraction approach	Describe the reading and data extraction method and processes
Findings		
10	Presenting characteristics of included studies	Describe characteristics of the included studies
Phase 4: determining how studies are related		
Methods		
11	Process for determining how studies are related	Describe the methods and processes for determining how the included studies are related: Which aspects of studies were compared **AND** How the studies were compared
Findings		
12	Outcome of relating studies	Describe how studies relate to each other
Phase 5: translating studies into one another		
Methods		
13	Process of translating studies	Describe the methods of translation: • Describe steps taken to preserve the context and meaning of the relationships between concepts within and across studies • Describe how the reciprocal and refutational translations were conducted • Describe how potential alternative interpretations or explanations were considered in the translations

No.	Criteria headings	Reporting criteria
Findings		
14	Outcome of translation	Describe the interpretive findings of the translation
Phase 6: synthesising translations *Methods*		
15	Synthesis process	Describe the methods used to develop overarching concepts ('synthesised translations') Describe how potential alternative interpretations or explanations were considered in the synthesis
Findings		
16	Outcome of synthesis process	Describe the new theory, conceptual framework, model, configuration or interpretation of data developed from the synthesis
Phase 7: expressing the synthesis *Discussion*		
17	Summary of findings	Summarise the main interpretive findings of the translation and synthesis and compare them to existing literature
18	Strengths, limitations and reflexivity	Reflect on and describe the strengths and limitations of the synthesis: • Methodological aspects – e.g. describe how the synthesis findings were influenced by the nature of the included studies and how the meta-ethnography was conducted • Reflexivity – e.g. the impact of the research team on the synthesis findings
19	Recommendations and conclusions	Describe the implications of the synthesis

Appendix 10 Training materials and resources

The eMERGe project developed reporting guidance for meta-ethnography, the leading method of qualitative evidence synthesis. eMERGe was funded by the NIHR Health Services and Delivery Research programme (grant number 13/114/60).

Training materials

Film: What is a qualitative evidence synthesis and what is meta-ethnography?

YouTube video by Dr Emma France, University of Stirling, available at www.youtube.com/watch?v=oPYL3oAwb4Q&feature=youtu.be (accessed 26 March 2018).

Description

A 22-minute Microsoft PowerPoint® 2010 (Microsoft Corporation, Redmond, WA, USA) version 14 presentation for lay advisors and participants involved in the eMERGe project. This is an excellent overview of meta-ethnography and includes a summarised example of the seminal meta-ethnography by Pound *et al.*[11]

Film: meta-ethnography then and now

Video film featuring Professor George Noblit, Professor of Sociology of Education, University of North Carolina available at www.youtube.com/watch?v=w3BB0IschGk (accessed 26 March 2018).

Description

A short film (approximately 10 minutes) from one of the originators of meta-ethnography. The film provides a brief overview of meta-ethnography (which complements information in the film provided by EFF) and highlights some contemporary issues.

Film: overview of the eMERGe project and development of the reporting guidance

Video film featuring Dr Emma F France and Lynne Gilmour, University of Stirling, available at www.youtube.com/watch?v=A9HzPnYm0RA (accessed 26 March 2018).

Description

A short film (approximately 10 minutes) focusing on different aspects of the eMERGe project including the background to the study, information on the different project stages and participants. The film focuses on a junior researcher who wants to find out more about the eMERGe study and the development of the reporting guidance through conversation with the eMERGe project leader.

Film: eMERGe reporting guidance – the wider context and its possible use

Video film featuring Professor Jane Noyes, Bangor University and Lynne Gilmour, University of Stirling, available at www.youtube.com/watch?v=1CvXm526AbY (accessed 26 March 2018).

Description

A short film (approximately 10 minutes) providing information about the wider context of the eMERGe reporting guidance (e.g. how eMERGe fits with other developments in the field of qualitative evidence synthesis and how the reporting guidance could be used by, for instance, journal editors and reviewers). The film focuses on a junior researcher who wants to find out more about these issues through conversation with an eMERGe project team member.

Film: eMERGe reporting guidance – their format, content and use

Video film featuring Dr Nicola Ring, Edinburgh Napier University and Lynne Gilmour, University of Stirling, available at www.youtube.com/watch?v=SenAIq8ck0s (accessed 26 March 2018).

Description

A short film (approximately 10 minutes) focusing on the format and content of the eMERGe reporting guidance. This film also explains how the reporting guidance, supporting explanatory notes and extensions to the guidance can be used. The film focuses on a junior researcher who wants to find out more about these issues through conversation with an eMERGe project team member.

Webinar recording of Introducing the New Meta-Ethnography Reporting Guidance – What it is and how to use it

Recording of a webinar led by Dr Nicola Ring, Edinburgh Napier University available at www.youtube.com/watch?v=58zv3PTttok&t (accessed 26 March 2018).

Description

A 1-hour recording of an introduction to the eMERGe meta-ethnography reporting guidance. This webinar was delivered ahead of publication but provides an overview of the three parts of the reporting guidance [(1) the summary guidance table, (2) supporting explanatory notes and (3) guidance extensions]. The recording focuses on a Microsoft PowerPoint presentation with a short question and answer session. Copies of the slides are also available from http://emergeproject.org/resources/ (accessed 26 March 2018).

Other resources

France E, Ring N, Noyes J, Maxwell M, Jepson R, Duncan E, *et al.* Protocol-developing meta-ethnography reporting guidelines (eMERGe). *BMC Med Res Methodol* 2015;**15**:103.

Uny I, France E, Noblit G. Steady and delayed: explaining the different development of meta-ethnography in health care and education. *Ethnography Educ* 2017;**12**:243–57.

France EF, Cunningham M, Ring N, Duncan EAS, Jepson RG, Maxwell M, *et al*. Improving reporting of Meta-Ethnography: the eMERGe Reporting Guidance. (Under review by *Journal of Advanced Nursing*, March 2018.)

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