

Evaluating meta-ethnography: systematic analysis and synthesis of qualitative research

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Executive summary

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Executive summary

Background

Methods for reviewing and synthesising findings from *quantitative* research studies in health care are well established. Although there is recognition of the need for *qualitative* research to be brought into the evidence base, there is no consensus about how this should be done and methods for synthesising qualitative research are at a relatively early stage of development.

Aim

Our aim was to undertake methodological research to evaluate meta-ethnography as a method for synthesising qualitative research studies in health and health care.

Methods of synthesis for qualitative research

A review of methods of qualitative synthesis was undertaken to examine the ways in which meta-ethnography, first described by Noblit and Hare (Noblit G, Hare R. *Meta-ethnography: synthesising qualitative studies*. 11th edn. London: Sage Publications; 1988), was being used, and to identify what other methods of qualitative synthesis were available. A range of methods for synthesising qualitative research was identified; none has become established, but meta-ethnography was the most widely cited method. Methods of qualitative synthesis could be broadly categorised as integrative or interpretative. In integrative syntheses, data in the primary studies are considered comparable and can therefore be pooled or aggregated. Methods falling into this category include numeric methods that involve the systematic pooling of qualitative data as a precursor to a quantitative analysis, narrative methods and cross-case techniques. Interpretative syntheses entail an emic approach with concepts and explanatory frameworks emerging through a process of induction. Meta-ethnography and grounded theory are examples of methods included in this second category.

Meta-ethnography has been applied in ways consistent with the approach originally described by Noblit and Hare (1988), but it has also been used as a procedure within an all-embracing form of synthesis called meta-study. Critical interpretative synthesis has also been proposed as a new method which evolved from an attempt to use meta-ethnography to bring together findings from a large and methodologically diverse group of studies.

Identification and selection of studies for synthesis

For this research, two full-qualitative syntheses were conducted using meta-ethnography: the first a synthesis of qualitative studies of medicine-taking and the second a synthesis of studies exploring patients' experiences of living with rheumatoid arthritis (RA). Searching the literature to identify studies for possible inclusion in a qualitative synthesis remains problematic. Our findings suggest that multiple search strategies should be employed and that hand-searching key journals is particularly worthwhile. The yield of relevant papers produced by electronic databases appeared to be topic dependent, suggesting that a variety should be searched. Similarly, the effectiveness of the electronic search strategy depended on the subject of the search, making it advisable to try more than one approach. Potentially relevant studies identified in literature searches, conducted in July and August 2002, were appraised using a modified version of the

Critical Appraisal Skills Programme [Critical Appraisal Skills Program. (*CASP*) *collaboration for qualitative methodologies*. 1998 URL: www.casp-uk.net] questions for understanding qualitative research. Candidate papers for both of our syntheses were excluded only on the grounds of lack of relevance to the aims of the synthesis or because the work failed to employ qualitative methods of data collection *and* analysis. Papers were not excluded on quality grounds alone. Quantifiable data from the appraisal process showed inter-rater agreement to be low.

Reproducibility

Before proceeding with the full syntheses, the first four papers to be synthesised in each of the two topic areas were independently synthesised by two researchers to explore the reproducibility of the meta-ethnographic method. The findings from these two preliminary syntheses produced mixed evidence of reproducibility. There were broad similarities in interpretation, but differences of detail. It is not possible to predict whether the differences would have become more or less pronounced as more papers were drawn into the syntheses.

Medicine-taking synthesis

Thirty-eight studies were entered into the synthesis, one of which did not contribute to the final synthesis. Most of the papers were about medicine-taking for chronic illness. Studies were initially synthesised by reciprocal translation within groups of papers defined by the type of medication. This process produced diagrams and textual summaries of medicine-taking within each group. The textual summaries were then synthesised thematically across the medicine groups as a lines-of-argument synthesis and the models were synthesised to produce a general model of medicine-taking. The synthesis revealed a general caution about taking medicine, and that the practice of lay testing of medicines was widespread. People were found to take their medicine passively or actively or to reject it outright. Some, in particular clinical areas, were coerced into taking it. Those who actively accepted their medicine often modified the regimen prescribed by a doctor, without the doctor's knowledge. This synthesis concluded that people do not take their medicines as prescribed because of concerns about the medicines themselves. 'Resistance' emerged from the synthesis as a concept that best encapsulates the lay response to prescribed medicines. It was suggested that a future policy focus should be on the problems associated with the medicines themselves and on evaluating the effectiveness of alternative treatments that some people use in preference to prescribed medicines.

Synthesis of studies of lay experiences of living with rheumatoid arthritis

This synthesis began with 29 papers. Four of these could not be synthesised, leaving 25 papers (describing 22 studies) contributing to the final synthesis. Most of the papers were concerned with the everyday experience of living with RA. Papers were synthesised chronologically. The earliest paper in the series was used as an index paper and each subsequent paper entered into the synthesis was compared with it and all preceding papers. The smaller number and coherence of papers in this synthesis permitted the reciprocal translation of findings for all papers to be tabulated. These reciprocal translations were then subject to a process of reordering and reanalysis. The final synthesis was presented as a textual distillation of the findings supported by novel tabular summaries of the needs of people with RA and the general and specific coping strategies that they deployed to accommodate the disease. This synthesis did not produce significant new insights, probably because the early papers in the area were substantial and theoretically rich, and later papers were mostly confirmatory.

Conclusions

This methodological research, conducted between April 2002 and September 2004, has shown that meta-ethnography is an effective method for synthesising qualitative research. The

meta-ethnographic method enables a body of qualitative research to be drawn together in a systematic way. The process of reciprocally translating the findings from each study into those from all the other studies in the synthesis, if applied rigorously, ensures that qualitative data can be combined. Following this essential process, the synthesis can then be expressed as a 'line of argument' that can be presented as text and in summary tables and diagrams or models. Meta-ethnography can produce significant new insights, as was achieved in the medicine-taking synthesis. However, as the synthesis of studies about lay experiences of arthritis showed, not all meta-ethnographic syntheses will lead to new insights. This does not signal failure, however, because, as our RA synthesis showed, the meta-ethnographic method is able to identify fields in which saturation has been reached and in which no theoretical development has taken place for some time, an outcome that can ensure that resources are not wasted in future. Both of our syntheses found that only a minority of the studies included referenced each other, suggesting that unnecessary replication occurred. In addition to being able to demonstrate what the cumulative knowledge is in a particular area, meta-ethnographic syntheses are also able to identify absences of knowledge and can reveal aspects of a body of literature that may have been obscured.

Meta-ethnography as described by Noblit and Hare (1988) is a highly interpretative method, and considerable immersion in the individual studies is necessary to achieve a synthesis. It is a method that places substantial demands upon the synthesiser and requires a high degree of qualitative research skill. Experience to date suggests that the inclusion of > ~40 papers would result in a trade-off between the breadth of included papers and the depth of scrutiny and thought invested in each stage of the synthesis. Meta-ethnography has great potential as a method of synthesis in qualitative health technology assessment, but it is still evolving and cannot, at present, be regarded as a standardised approach capable of application in a routinised way.

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The research reported in this issue of the journal was commissioned by the National Coordinating Centre for Research Methodology (NCCRM), and was formally transferred to the HTA programme in April 2007 under the newly established NIHR Methodology Panel. The HTA programme project number is 06/90/12. The contractual start date was in May 2002. The draft report began editorial review in November 2010 and was accepted for publication in July 2011. The commissioning brief was devised by the NCCRM who specified the research question and study design. The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The HTA editors and publisher have tried to ensure the accuracy of the authors' report and would like to thank the referees for their constructive comments on the draft document. However, they do not accept liability for damages or losses arising from material published in this report.

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