Development of methodological guidance, publication standards and training materials for realist and meta-narrative reviews

The RAMESES (Realist And Meta-narrative Evidence Syntheses: Evolving Standards) project

Geoff Wong[1], Trish Greenhalgh[1], Gill Westhorp[2] and Ray Pawson[3]

[1] Centre for Primary Care and Public Health, Queen Mary University of London, 58 Turner Street, London E1 2AB, UK

[2] Community Matters, P.O. Box 443, Mount Torrens, SA 5244, Australia

[3] School of Sociology and Social Policy, University of Leeds, Leeds LS2 9JT, UK

Corresponding author
Dr Geoff Wong
Senior Lecturer in Primary Care
Global Health Innovation and Policy Unit
Centre for Primary Care and Public Health
Blizard Institute
Barts and The London School of Medicine and Dentistry
Queen Mary, University of London
Yvonne Carter Building
58 Turner Street
London E1 2AB
(Tel):   +44 (0)20 7882 2483
(Fax):   +44 (0)20 7882 2200
(Email):   grckwong@gmail.com

Important

This scientific summary appears here in draft format. The summary has undergone full peer and editorial review as documented at NIHR Journals Library website and may undergo rewrite during the publication process. The order of authors was correct at editorial sign-off stage.

A final version (which has undergone a rigorous copy-edit and proofreading) will publish as part of a fuller account of the research in a forthcoming issue of the *Health Services and Delivery Research* journal.

Any queries about this early version of the scientific summary should be addressed to the NIHR Journals Library Editorial Office NIHRedit@soton.ac.uk.

Scientific summary

Background

Quality checklists and publication standards are common (and, increasingly, expected) in health services research. They have two main purposes: they help researchers design and undertake robust studies, and they help reviewers and potential users of research outputs assess validity and reliability. This project seeks to produce a set of quality criteria, comparable publication guidance and training materials for realist and meta-narrative reviews.

Objectives

1. To collate and summarise the literature on the principles of good practice in realist and meta-narrative reviews, highlighting in particular how and why these differ from conventional forms of systematic review and from each other.

2. To consider the extent to which these principles have been followed by published and in-progress reviews, thereby identifying how rigour may be lost and how existing principles could be improved.

3. Use an online Delphi method with an interdisciplinary panel of experts from academia and policy, to produce, in draft form, an explicit and accessible set of methodological guidance and publication standards.

4. To produce training materials with learning objectives linked to these steps and standards.

5. To refine these standards and training materials prospectively on real reviews-in-progress, capturing methodological and other challenges as they arise.

6. To synthesise expert input, evidence review and real-time problem analysis into more definitive guidance and standards

7. To disseminate these guidance and standards to audiences in academia and policy

Methods

To fulfil objectives [1] and [2] we undertook a narrative review of the literature that was supplemented by collating feedback from presentations and workshops. We synthesised our findings into briefing materials (one for realist synthesis and another for meta-narrative

reviews. We recruited members to two Delphi panels which had wide representation from researchers, students, policymakers, theorists and research sponsors. We used the briefing materials to brief the Delphi panel so they could help us in fulfilling objective [3].

For objective [4], we drew not only on our experience in developing and delivering education materials, but also relevant feedback from the Delphi panel, an email list we set up specifically for this project (www.jiscmail.ac.uk/RAMESES), training workshops and the review teams we supported methodologically. To help us refine our publication standards (objective [5]) we captured methodological and other challenges that arose within the realist or meta-narrative review teams we provided methodological support to.

To produce the definitive publication standards, quality standards and training materials (objective [6]), we synthesised expert input (from the Delphi panel), literature review and real-time problem analysis (e.g. feedback from the email list, training sessions and workshops, and presentations).

Throughout this study, we iteratively and contemporaneously fed any data we captured into our draft publication standards, quality standards and training materials, making changes gradually. The definitive guidance and standards were thus the product of continuous refinements. We addressed objective [7] through academic publications, online resources and delivery of presentations and workshops.

Results

An important early output of this study was an email mailing list (www.jiscmail.ac.uk/ RAMESES) to bring together researches in the field, especially since before the study began, many were dispersed across the globe and working in isolation. The list at present has over 200 members and it regularly serves as a resource for its members to ask and get help with methodological questions. The RAMESES list will continue to run after the end of this project.

Our literature review identified 35 and 9 realist and meta-narrative reviews respectively. Analysis and discussion within the project team produced a summary of the published literature, and common questions and challenges in briefing materials for the Delphi panel,

comprising 37 and 33 members (for realist and meta-narrative reviews respectively). There was an overlap in the membership of the panels. Within three rounds the panels had reached consensus on 19 realist and 20 meta-narrative key publication standards, with an overall response rate of 90% and 91% respectively. The RAMESES publication standards for realist syntheses and meta-narrative reviews have been published in open access journals and the EQUATOR Network (http://www.equator-network.org).

The quality standards and training materials drew on the following sources of data; [1] personal expertise as researchers and trainers; [2] data from the Delphi panels; [3] feedback from participants at training sessions we ran; and [4] comments made on RAMESES mailing list. We developed eight quality criteria for realist syntheses and nine for meta-narrative reviews. Versions of these quality criteria were developed for researchers, peer-reviewers and funders / commissioners of research. For our training materials we used the data we captured to identify the methodological topics that were identified by the majority of reviewers as most challenging. We developed training materials for four methodological topics in realist reviews (see *Appendix 9*) and three in meta-narrative reviews (see *Appendix 10*). The quality standards and training materials are freely available online (www.ramesesproject.org).

Conclusions

Realist and meta-narrative review are relatively new approaches to systematic review whose overall place in the secondary research toolkit is not yet fully established. As with all secondary research methods, if used, guidance on quality assurance and uniform reporting is an important step towards improving quality and consistency of reviews. This project has developed the first ever set of such standards and materials. We anticipate that as more reviews are undertaken, further refinement will be needed to the publication and quality standards and training materials.

Word count: 1016

Plain English Summary

Every year, a lot of research is published. No one is able to read all of this research and so some researchers produce summaries - called literature (or systematic) reviews. There are many different ways of doing systematic reviews; realist and meta-narrative review are two relatively new approaches which both seek to explain why and how interventions work. When we started this project, there were no standards setting out how to judge if realist or meta-narrative reviews were of high quality – something we have called 'quality standards'. Nor did any standards exist to guide researchers on how best to write up their reviews for publication –we have called these 'publication standards'. Whilst there were some training materials for these review methods, more were needed which showed researchers in detail how to rigorously undertake certain parts of a review.

In this project we developed quality and publication standards and training materials for realist and meta-narrative reviews. We used a range of information to help us choose and agree on what should be in the standards and training materials. We gathered together a group of experts. We set up an email list and invited people to join and contribute. We asked researchers we worked with on realist or meta-narrative reviews for their comments. And we got feedback from researchers we trained in workshops or presented to at conferences. We analysed and wove together all this information to produce quality and publication standards and training materials. We have made all the outputs of our work freely available online (www.ramesesproject.org).

Word count: 250