

QUALITY STANDARDS FOR META-NARRATIVE REVIEWS (for researchers and peer-reviewers)				
1. The research problem				
Meta-narrative review is a relatively new method of systematic review, designed for topics that have been differently conceptualized and studied by different groups of researchers. To understand the many approaches, reviewers have to consciously and reflexively step out of their own world-view, learn some new vocabulary and methods, and try to view a topic through multiple different sets of eyes. An over-arching narrative of the different perspectives, based on an increased understanding of them, is produced which highlights what different research teams might learn from one another's approaches.				
Criterion	Inadequate	Adequate	Good	Excellent
The research topic is appropriate for a meta-narrative approach	<p>The research topic is:</p> <ul style="list-style-type: none"> <li>not appropriate for secondary research; and/or</li> <li>does not require understanding of how a topic has been conceptualised and studied differently by different groups.</li> </ul>	The research topic is appropriate for secondary research. It would benefit from illumination of how a topic has been conceptualised and studied differently by different groups.	Adequate plus: Framing of the research topic reflects a thorough understanding of the value, importance and implications of different approaches on research practice and findings.	Good plus: There is a coherent argument as to why a meta-narrative review is more appropriate for the topic than potential alternatives.
The research question is constructed in such a way as to be suitable for a meta-narrative review	<p>The research question is not structured to reflect the elements of meta-narrative explanation. For example, it:</p> <ul style="list-style-type: none"> <li>requires only description; and/or</li> <li>requires only a numerical aggregation of outcomes; and/or</li> <li>requires only a summary of processes; and/or</li> <li>specifies methods that are inadequate to generate meta-narrative understanding (e.g. 'a thematic analysis of ...')</li> </ul>	The research question includes a focus on how a topic has been conceptualised and studied differently by different groups.	Adequate plus: The research question includes an element that addresses the implications of different conceptualisations and approaches to a topic on research findings.	Good plus: The research question is a model of clarity and as simple as possible.

<b>2. Understanding and applying the purpose and underpinning principles of meta-narrative reviews</b>				
<p>Meta-narrative review (which is rooted in a constructivist philosophy of science), is inspired by the work of Thomas Kuhn, who observed that science progresses in paradigms. Meta-narrative reviews often look historically at how particular research traditions or epistemic traditions have unfolded over time and shaped the 'normal science' of a topic area. The review seeks first to identify and understand as many as possible of the potentially important different research traditions which have a bearing on the topic. In the synthesis phase, by means of an over-arching narrative, the findings from these different traditions are compared and contrasted to build a rich picture of the topic area from multiple perspectives. The goal of meta-narrative review is sense-making of a complex (and perhaps contested) topic area. During analysis and synthesis, six guiding principles (pragmatism, pluralism, historicity, contestation, reflexivity and peer review) should be used.</p>				
	<b>Inadequate</b>	<b>Adequate</b>	<b>Good</b>	<b>Excellent</b>
<p>The review demonstrates understanding and application of the purpose and principles underpinning a meta-narrative review.</p>	<p>Significant misunderstandings of purpose and principles underpinning a meta-narrative review. Common examples include:</p> <ul style="list-style-type: none"> <li>Analysing only one paradigm/epistemic tradition</li> <li>No application of the six underlying principles</li> </ul>	<p>Some misunderstandings of purpose and principles underpinning a meta-narrative review, but the overall approach is consistent enough that a recognisable set of distinct meta-narratives together with a higher-order synthesis of these results from the process.</p>	<p>The review's assumptions and analytic approach are consistent with the purpose and underpinning principles of a meta-narrative review.</p> <p>In particular, the philosophical position is explicitly constructivist. A sufficient range of paradigms/epistemic traditions has been included to make sense of an unfolding and complex topic area from multiple perspectives and to use contrasts between these as higher-order data.</p>	<p>Good plus: Review methods, strategies or innovations used to address problems or difficulties within the review are philosophically coherent and make a clear and illuminative contribution to the knowledge base on the topic area.</p>

<b>3. Focussing the review</b>				
<p>A meta-narrative review asks some or all of the following questions: (1) Which research (or epistemic) traditions have considered this broad topic area?; (2) How has each tradition conceptualized the topic?; (3) What theoretical approaches and methods did they use?; (4) What are the main empirical findings?; and (5) What insights can be drawn by combining and comparing findings from different traditions?</p> <p>Because a meta-narrative review may generate a large number of avenues that might be explored and explained, and because resources and timescale are invariably finite, it may be necessary to 'contain' a review by progressively focusing both its breadth (how wide an area?) and depth (how much detail?). This important process needs to be considered from the start and may involve iterative rounds of discussion and negotiation with (for example) content experts, funders and/or users. It is typical and legitimate for the review's objectives, question and/or the breadth and depth of the review to evolve as the review progresses.</p>				
	<b>Inadequate</b>	<b>Adequate</b>	<b>Good</b>	<b>Excellent</b>
The review question is sufficiently and appropriately focussed.	The review question is too broad to be answerable within the time and resources allocated. There is no evidence that progressive focussing occurred as the review was undertaken.	Attempts were made by the review team to progressively focus the review topic in a way that takes account of the priorities of the review and the realities of time and resource constraints.	Adequate plus: There is evidence that the focussing process was iterative.  Commissioners of the review were involved in decision-making about focussing.  Decisions made about which avenues were pursued and which left open for further inquiry are clearly documented and made available to users of the review.	Good plus: The review team draws on external stakeholder expertise to drive the focussing process in order to achieve maximal end-user relevance.

<b>4. Scoping the literature</b>				
An important process in a meta-narrative review is to identify a sufficiently broad range of sources to be able to build as comprehensive a map as possible of research undertaken on the topic. This scoping step is used to identify in broad terms the different research traditions, situated in different literatures, which have addressed the topic of interest. Initial attempts to make sense of a topic area may involve not just informal 'browsing' of the literature but also consulting with experts and stakeholders.				
	<b>Inadequate</b>	<b>Adequate</b>	<b>Good</b>	<b>Excellent</b>
The scoping of the literature has been sufficiently and appropriately undertaken	The scoping of the literature has been limited and cursory (e.g. only a single source is used – perhaps the Medline database – and/or the review has inappropriately concentrated on a single research tradition – for example 'evidence based medicine')	Attempts made to utilise a broad range of relevant sources and to build as comprehensive a map as possible of the research traditions on the topic.	Adequate plus: A coherent and through search strategy, deliberately including exploratory methods such as browsing and modified in the light of emerging findings, is used to identify research traditions.	Good plus: Systematic use is made of experts and stakeholders in identifying research traditions.

**5. Developing a search strategy**

Searching in a meta-narrative review is guided by the objectives and focus of the review, and revised iteratively in the light of emerging data. Searching is directed at finding sufficient data to develop and make sense of the relevant research traditions that have been identified, and may lie in a broad range of sources that may cross traditional disciplinary, programme and sector boundaries. This stage is likely to involve searching for different kinds of data in different ways.

	<b>Inadequate</b>	<b>Adequate</b>	<b>Good</b>	<b>Excellent</b>
The search process is such that it would identify data to enable the review team to develop and refine the map of seminal papers and primary research studies.	<p>The search is incapable of supporting the development of a rigorous meta-narrative review. Errors may include:</p> <ul style="list-style-type: none"> <li>• The search is driven by a methodological hierarchy of evidence (e.g. privileging RCTs) rather than the need to identify the range of research paradigms (concepts, theories, methods and instruments) that have been brought to bear on a topic</li> <li>• The search process is not informed by the objectives and focus of the review</li> <li>• The database(s) selected are narrow in the subject matter that they contain (e.g. limited to biomedical topics and approaches rather than extending to social science, psychology etc.)</li> <li>• Searching is undertaken once only at the outset of the review and there is no iterative component</li> </ul>	<p>Searches are driven by the objectives and focus of the review and are piloted and refined to check that they are fit for purpose.</p> <p>Documents are sought from wide range of sources which are likely to contain relevant data on research traditions.</p> <p>There is no predefined restriction on the study or documentation type that is searched for</p>	<p>Adequate plus: further searches are undertaken in light of greater understanding of the topic area, particularly through the use of citation-tracking of seminal papers. These searches are designed to find additional data that would allow greater sense to be made of component research traditions and/or draw higher order insights from contrasts between traditions.</p>	<p>Good plus: The search reflects a high degree of scholarly insight into the key research traditions of the review.</p>

## 6. Selection and appraisal of documents

Meta-narrative review is not a technical process, rather, it is a process of sense-making of the literature, selecting and combining data from primary sources to produce an account of how a research tradition unfolded and why, and then (in the synthesis phase) comparing and contrasting findings from these different traditions to build a rich picture of the topic area from multiple perspectives. This process requires a series of judgements about the unfolding of research in particular traditions, and about the relevance and robustness of particular data within that tradition.

Meta-narrative review takes its quality criteria from the traditions included in the review. Studies in these separate traditions should be appraised using the quality criteria that a competent peer-reviewer in that tradition would choose to use.

The description of the selection and appraisal process should be sufficiently detailed to enable a reader to judge how likely it is that researchers inadvertently excluded data that may have significantly altered the findings of the review.

	Inadequate	Adequate	Good	Excellent
The selection and appraisal process ensures that sources relevant to the review containing material likely to help identify, develop and refine understanding of research traditions are included.	<p>The selection and appraisal process does not support a rigorous and complete meta-narrative review. For example:</p> <ul style="list-style-type: none"> <li>• Selection is overly driven by methodological hierarchies (in particular the restriction of the sources to RCTs to the exclusion of other forms of evidence)</li> <li>• Sources are appraised using a technical checklist focused on methodological procedure rather than by making a defensible judgement on the contribution that a source might make.</li> <li>• Selection and appraisal processes are overly restrictive and exclude materials that may help sense-making of research traditions.</li> <li>• Selection and appraisal processes are not sensitive enough to exclude irrelevant materials</li> </ul>	<p>Selection of a document for inclusion into the review is based on what it can contribute to making sense of research traditions.</p> <p>All the key high-quality sources are identified and included in the review and the poor-quality ones accurately excluded.</p>	<p>Adequate plus: During the appraisal process studies in the separate traditions are appraised competently using the quality criteria acceptable to that tradition.</p>	<p>Good plus: The judgements made when appraising papers are a model of good scholarship in the relevant tradition.</p>

7. Data extraction				
In a review, data extraction assists analysis and synthesis. Of particular interest to the meta-narrative reviewer are data elements that would contribute to constructing a story of how research on a topic unfolded over time in a particular tradition.				
	Inadequate	Adequate	Good	Excellent
The data extraction process captures the necessary data to enable a meta-narrative review	<p>The data extraction process does not capture the necessary data to enable a meta-narrative review. For example:</p> <ul style="list-style-type: none"> <li>• Data extraction is undertaken mechanically and with no attention to how the data informs the review</li> <li>• No or very limited piloting is undertaken to test aspects of the data extraction process and improve it</li> </ul>	<p>Data extraction focuses on identification and elucidation of data that informs how research on a topic unfolded over time in a particular tradition.</p> <p>Piloting and refinement of the data extraction process is undertaken where appropriate.</p> <p>Quality control processes are in place to check that all review team members apply common processes and standards in data extraction.</p>	<p>Adequate plus: Data extraction processes support later processes of analysis (e.g. by organising data into sets relevant for later analysis). The data extracted are comprehensive enough to identify important topics that concern a research tradition, for example:</p> <ul style="list-style-type: none"> <li>• upstream (antecedent) traditions from which these emerged; background philosophical assumptions;</li> <li>• research questions and how they were framed;</li> <li>• key conceptual and theoretical issues;</li> <li>• preferred methodologies, study designs, and quality criteria;</li> <li>• key actors and events in the unfolding of the tradition;</li> <li>• landmark empirical or theoretical studies;</li> <li>• significant findings and how these shaped subsequent work; and</li> <li>• key debates and areas of dispute within the tradition, including links with or breaches from other traditions.</li> </ul>	<p>Good plus: The data extraction process is continually refined as the review progresses, so as to capture relevant data as the review question is focussed and/or research traditions identified and elucidated.</p>

<b>8. Synthesis phase</b>				
Having identified the individual meta-narratives, the next phase in a meta-narrative review is to compare and contrast these to generate higher-order data (e.g. to identify and explain 'conflicting' findings).				
	<b>Inadequate</b>	<b>Adequate</b>	<b>Good</b>	<b>Excellent</b>
The meta-narrative should include a synthesis phase where philosophical, conceptual, methodological and empirical differences between traditions are discussed and explained.	The synthesis phase is missing or fails to engage with the underlying philosophical, conceptual or theoretical contrasts between traditions.	Some attempt is made to show how different groups of researchers produced different findings as a result of different philosophical assumptions, different ways of conceptualising the topic, different theoretical explanations or different study designs and methods.	Adequate plus: The contrasting accounts of different traditions are synthesised in a way that generates robust higher-order data (for example, about the contestation between different research storylines at policy level).	Good plus: The review generates additional philosophical, conceptual, theoretical or methodological insights that inform innovations in research.
<b>9. Reporting</b>				
Meta-narrative reviews may be reported in multiple formats – lengthy reports, summary reports, articles, websites and so on. Reports should be consistent with the publication standards for meta-narrative reviews. (See RAMESES publication standards: meta-narrative reviews at: <a href="http://onlinelibrary.wiley.com/doi/10.1111/jan.12092/full">http://onlinelibrary.wiley.com/doi/10.1111/jan.12092/full</a> or <a href="http://www.biomedcentral.com/1741-7015/11/20">http://www.biomedcentral.com/1741-7015/11/20</a> ).				
	<b>Inadequate</b>	<b>Adequate</b>	<b>Good</b>	<b>Excellent</b>
The meta-narrative review is reported using the items listed in the relevant RAMESES Reporting standard	Key items are missing. For example <ul style="list-style-type: none"> <li>• No defined research question</li> <li>• Limited or no reporting of the review's processes (i.e. methods used)</li> <li>• Limited or no explanations and justifications provided for any adaptations made on the meta-narrative review process</li> <li>• Insufficient detail is reported to enable readers to judge the plausibility and coherence of the findings</li> </ul>	Most items reported. In particular the following items should be reported: <ul style="list-style-type: none"> <li>• Rationale for review</li> <li>• Objectives and focus of review</li> <li>• All method section items (i.e. items 5 to 12 in the RAMESES publication standards: meta-narrative reviews)</li> </ul>	All items are reported clearly and in sufficient detail for an external reader to understand and to judge the methods used and the plausibility and coherence of the findings.	Good plus: The report is well written and easy to understand. Additional materials are made available for external readers to investigate aspects of the review in more detail.

For details on how these quality standards were developed, please see:

Wong G, Greenhalgh T, Westhorp G, Pawson R..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. Health Serv Deliv Res 2014;2(30)