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Using Rapid Reviews in Nursing and Midwifery Research: An Example From a Study Commissioned to Inform Policy-Making

Denise O'Leary
Technological University Dublin, denise.oleary@tudublin.ie

Mary Casey

Laserina O'Connor

See next page for additional authors

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Authors

Denise O'Leary, Mary Casey, Laserina O'Connor, Diarmuid Stokes, Gerard Fealy, Denise O'Brien, Rita Smith, Martin McNamara, and Claire Egan

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Key words

Systematic reviews and meta analyses, policy

Abstract

Aim: To illustrate the potential use of rapid review approaches in nursing and midwifery research by presenting a worked example from a study conducted to inform policy decision making.

Background: Rapid reviews, which can be defined as outputs of a knowledge synthesis approach that involves modifying or omitting elements of a systematic review process due to limited time or resources, are becoming increasingly popular in health research. This paper provides guidance on how a rapid review can be undertaken and discusses the strengths and challenges of the approach.

Data source and research design: Data from a rapid review of the literature undertaken in 2015 is used as a worked example to highlight one method of undertaking a rapid review.

Implications for nursing: Seeking evidence to inform health policy making or evidence based practice is a process that can be limited by time constraints, making it difficult to conduct comprehensive systematic reviews.

Conclusions: Rapid reviews provide a solution as they are a systematic method of synthesising evidence quickly.

Introduction

In nursing and midwifery, practitioners, managers and policy makers often require speedy access to research information to inform decision-making. Yet systematic reviews, which are viewed as the gold standard in informing decision-making, can require significant financial resources of at least $100,000 (Tricco *et al.*, 2015) and significant time resources of an average of 1,139 hours (Allen and Olkin, 1999). However, as highlighted by Rotstein and Laupacis (2004), there is a gap between the "ideals of scientific rigour and the realities of policy making" which often requires quicker and less expensive sources of information for use in decision making. Rapid reviews provide an alternative approach to systematic reviews by facilitating the synthesis of evidence in environments characterised by limited time and resources, political urgency or urgent clinical needs. Instead of taking years to complete, rapid reviews generally take less than a year, with many taking less than six months, with some authors reporting a timescale of only weeks (Tricco *et al.*, 2015, Cameron *et al.*, 2007). Increasingly, the rapid review methodology is emerging as a pragmatic means of informing emergent decisions in healthcare, as evidenced by the Cochrane Collaborations recent registration of a Rapid Reviews Methods Group to inform rapid review methodology (King *et al.*, 2014).

Rapid reviews "aim to be rigorous and explicit in method and thus systematic but make concessions to the breadth or depth of the process by limiting particular aspects of the systematic review process" (Grant and Booth, 2009). They have been used in nursing and

midwifery for various purposes, usually in situations characterised by limited time or resources.

Rapid reviews are also characterised by a closer relationship with the end user than is generally seen in the conduct of systematic reviews (Hartling *et al.*, 2015b). Accordingly, rapid reviews undertaken to inform evidence based practice, focus on issues of urgency to practitioners within the clinical environment. Some are available in repositories such as the Joanna Briggs Institute, which provides rapid reviews on topics of clinical interest (Munn *et al.*, 2015).

Increasingly, rapid reviews are used in policy development or evaluation and are often undertaken in response to requests from agencies involved in the health policy-making process (Watt *et al.*, 2008). An example is provided by Caird *et al.* (2010) who describe a review conducted in response to a request from the UK's Department of Health for evidence to inform the Prime Minister's Commission on the Future of Nursing and Midwifery. The review had to be undertaken in a reliable but timely manner in order to address the needs of the commission body, making the rapid review approach an appropriate one (Sutcliffe *et al.*, 2012).

Rapid reviews can also be used to inform nursing and midwifery education. Parker and Fuller (2016) reported on a study to examine if nurses, rather than other health professionals, are best placed to act as care coordinators in primary care with regard to chronic disease management. The rapid review coincided with an evaluation of a programme focused on training nurses to undertake this role; thus the review had to be conducted within a tight timeframe in order to inform the evaluation.

There is debate in the literature as to whether rapid reviews should be considered inferior to systematic reviews. It has been suggested that the results of rapid reviews are less generalisable and dependable than full systematic reviews, as they may rely on lower quality research (Featherstone *et al.*, 2015). Nevertheless, although there is little empirical evidence comparing the outcomes of rapid reviews and systematic reviews, what evidence there is suggests that the conclusions that emerge are similar (Hartling *et al.*, 2015a). Cameron *et al.* (2007) compared seven rapid reviews with systematic reviews on the same topic and found that there were no differences in the broad conclusions drawn in each, but that the systematic reviews provided more in-depth information and more comprehensive recommendations to practitioners or policy makers. They suggest that some topics require the presentation of this greater depth of information, especially more complex topics. According to Watt *et al.* (2008) these topics include ethics, safety or economic implication, which they suggest, should not be evaluated in a short time frame. Ganann *et al.* (2010) argue that rapid reviews should not be viewed as an alternative to systematic reviews, but this view is not universal as others have highlighted the important role that rapid reviews can play in informing clinical and policy decision making in a timely fashion, as long as there is transparent reporting of methodology and limitations (Tricco *et al.*, 2016, Featherstone *et al.*, 2015).

Rapid reviews provide a pragmatic and manageable way to find and synthesise information in a short timeframe. Nevertheless, the methodology and the concept of rapid review synthesis remain poorly defined (Khangura *et al.*, 2012). This paper does not attempt to synthesise the literature on the topic as that has been done elsewhere (Ganann *et al.*, 2010, Featherstone *et al.*, 2015, Tricco *et al.*, 2015, Hartling *et al.*, 2015a). Instead, it highlights how researchers, faced with limited time or resources, might take a systematic and rigorous approach to

undertaking and reporting the findings of a review of the literature on a nursing and/or midwifery related issue. Accordingly, the dual aims of this paper are to provide an exemplar for researchers and practitioners and to add some clarity to the methodological and conceptual ambiguity on rapid reviews that currently exists.

Background

Grant and Booth (2009) in a typology of review types highlight fourteen review types. Three of the fourteen, rapid reviews, scoping reviews and mapping reviews, are characterised by searches that are time-constrained. Both mapping reviews and scoping reviews are preliminary assessments of the literature; mapping reviews map out and categorise the literature and scoping reviews assess the potential size and scope of literature on a topic. This means that the rapid review is the only review type identified that assesses evidence on policy or practice issues though the use of a systematic review method, albeit within a limited timeframe.

The methodology for conducting a rapid review is a streamlined systematic review methodology, in which components of the systematic review process are simplified or omitted due to a short time frame for completion (Tricco *et al.*, 2015). Thus to determine what a rapid review is and how components of a systematic review are simplified or omitted, it is first necessary to define a systematic review. The Cochrane Handbook for Systematic Reviews of Interventions defines systematic review with reference to its functions and approach as follows:

> A systematic review attempts to collate all empirical evidence that fits pre-specified
> eligibility criteria in order to answer a specific research question. It uses explicit,

systematic methods that are selected with a view to minimizing bias, thus providing more reliable findings from which conclusions can be drawn and decisions made (Higgins & Green, 2006, p. 6).

The components of a systematic literature review include: defining a review question and criteria for including and excluding studies in the review; conducting a systematic search to identify eligible studies; selecting studies; data abstraction; assessing the risk of bias in the studies; data analysis (often through meta-analysis); and drawing conclusions (Higgins & Green, 2011).

The components of systematic reviews that are simplified or omitted in rapid reviews vary from review to review and can take a variety of forms. Simplification or omission of steps can relate to the team involved, the sources of literature accessed, the type of studies included, the search criteria, quality appraisal and data synthesis (Tricco *et al.*, 2016). Harker and Kleijnen (2012) identify a positive correlation between the number of systematic review steps utilised and the length of time taken to undertake a rapid review. In other words, the less a rapid review deviates from systematic review methodology, the longer it takes.

With regard to the team involved, the Cochrane handbook recommends that the search stage of the systematic review should include either a Trials Search Co-ordinator, or healthcare librarian/information specialist with experience in systematic reviews, and that screening of studies for inclusion and extracting data from study reports should be undertaken by two team members individually. Rapid reviews, on the other hand, may only have one reviewer involved in the screening process and/or may not include a health care librarian or information specialist on the team (Tricco *et al.*, 2016).

Systematic review authors are urged to seek expert input and peer review at all stages of a review (Higgins & Green, 2011). In an assessment of rapid reviews Cameron *et al.* (2007) found that this advice was sometimes followed by those conducting such reviews. Over half of the 36 reviews they examined included use of external experts or peer review. In the majority of cases, this prolonged the time it took to complete the review.

Restricting sources of data or the types of papers included provides a means of simplifying a systematic review step. The Cochrane handbook lists a range of sources of data, including citation indexes, bibliographic databases, controlled trials registers, dissertations and theses databases, conference abstract sources, evidence based guideline databases, trials registers and grey literature databases (Higgins & Green, 2011). Although authors are not expected to search every possible source, it is recommended that they search at least CENTRAL, MEDLINE and EMBASE bibliographic databases, the grey literature and national and subject specific databases according to the review topic (Higgins & Green, 2011). Analyses of rapid reviews highlight that the search criteria are usually not as broad as recommended for a Cochrane systematic review. Searchs may be restricted to a limited number of databases, exclude unpublished literature, apply date and language limitations and/or limit the type or scope of studies included (Tricco *et al.*, 2016, Ganann *et al.*, 2010). Other restrictions applied in rapid review methodologies can be to exclude hand searching of reference lists and/or the use of a research question with a limited scope (Tricco *et al.*, 2015, Featherstone *et al.*, 2015). Additionally, it appears that searching and retrieving in rapid reviews is often limited to readily available literature (Ganann *et al.*, 2010, Cameron *et al.*, 2007).

Quality assessment is a recommended step in a systematic review and the Cochrane Handbook recommends a specific tool to assess the risk of bias within each study included in a systematic review, which assesses domains such as selection bias, performance bias and reporting bias (Higgins & Green, 2011). Other quality assessment tools that can be used either alone or in combination include checklists, domain based tools and scales (Zeng *et al.*, 2015). However, using these tools is time consuming and there is a trade-off between assessing studies to restrict the inclusion of poor quality studies and the time it takes to do so. Some rapid reviews include a full quality assessment step, others include a brief one and yet others exclude a quality assessment step altogether (Featherstone *et al.*, 2015). Data synthesis can also be more limited in a rapid review than a systematic review. Meta-analyses, recommended for systematic reviews are generally not undertaken in rapid reviews. Instead, rapid reviews typically record the synthesis of the literature in narrative and tabular format (Grant & Booth, 2009).

Data sources

This study, which was commissioned by the Irish Department of Health, involved a rapid review of the relevant national and international literature, regulatory and policy documents relating to the establishment and definition of nurses' and midwives' specialist and advanced practice roles. The study included a rapid review and primary data collection using semi-structured interviews. The interview data are not included in this paper, which focuses solely on the rapid review methodology as an exemplar to inform nursing and midwifery research.

Study design

The review used as an exemplar in this paper had to be undertaken in two months due to policy decision-making timelines. This meant that a full systematic review was not a feasible

option and, accordingly, a rapid review was undertaken. There were seven reviewers involved in the process and their roles are outlined in Table 1. Streamlining occurred at a number of junctures, namely the search and selection steps, quality assessment and data synthesis.

An expert panel was established at the outset, consisting of two academics with extensive experience in the area of specialist and advanced nursing and midwifery practice. The expert panel was consulted throughout the rapid review process. The remainder of the discussion will highlight how streamlining occurred. An overview of the rapid review methodology with details of how each step was operationalised in the context of this study is provided in Table 1.

Table 1: Overview of the rapid review methodology

Stage	Activities
1. Establish the purpose of the rapid review and define the research question	Consultation with the Department of Health to establish the purpose of the rapid review Department of Health identified topic areas Research team defined three research questions linked to the topic areas
2. Conduct a search of the literature	Research team and an expert panel discussed the literature search strategy and agreed the search criteria Independent searches were conducted for each of the three research questions involving searches of two electronic databases (MEDLINE and PUBMED) The reference lists of highly relevant papers were searched manually Three team members, working together, conducted the literature search
3. Screen the literature	Two team members working together conducted title and abstract screening Papers related to each of the three research questions were assigned to a team member for full text screening
4. Appraise the quality of included studies and conduct data abstraction	Three team members conducted data abstraction and quality appraisal concurrently Each of the three reviewers reviewed data related to a single research question and a fourth team member reviewed summary tables.
5. Conduct data synthesis	The same three team members conducted data synthesis individually on their assigned question. A fourth team member undertook synthesis across all three topic areas, resulting in a narrative synthesis of the topic The full team and expert panel were consulted during the process and provided feedback

Establishing the purpose of the rapid review and defining the research question

It is important to establish a clear question and a clearly defined context at the initiation of a rapid review process (Ganann *et al.*, 2010). In this study, the Department of Health established three topic areas to be covered in the review. A consultation meeting was held with Department officials to confirm the topic areas and to establish the purpose of the review, which was to inform nursing and midwifery policy making. Research questions aligned with each of the topic areas were then defined by the research team as follows:

- **Research Question 1:** What are outcomes and impact of specialist and advanced nursing and midwifery practice in relation to quality of care, cost and access to services and what are the methods of capturing these outcomes and impacts?

- **Research Question 2:** What are the enablers and barriers to the development of specialist and advanced nursing and midwifery practice roles from a legislative, regulatory, policy, education and service delivery perspective?

- **Research Question 3:** What are the current and potential models of specialist and advanced nursing and midwifery practice taking into account emerging and future service needs?

Although it is more common to focus on one research question, this approach of developing three was taken for two reasons. Firstly, the review focused on three distinct topics areas related to specialist and advanced nursing and midwifery practice, thereby suggesting three distinct questions. Secondly, using three distinct research questions enabled the review process to be streamlined as it allowed different team members to undertake work simultaneously rather than concurrently (Table 2). This streamlining of the review was

consistent with the tenets of rapid review, since it also retained the elements of systematic

searching, data abstraction and quality appraisal.

Table 2 Activities and roles

Research question	Activity	Team member
Question 1, 2 and 3	Literature search	DS
Question 1, 2 and 3	Literature Search Title screening Abstract screening	MC, DOL
Question 1	Full paper screening Data abstraction Data synthesis	RS
Question 2	Full paper screening Data abstraction Data synthesis	GF
Question 3	Full paper screening Data abstraction Data synthesis	DOB
Question 1, 2 and 3	Review of data abstraction Data synthesis	LOC

Conducting a search of the literature

Three reviewers met over two days to conduct searches in each of the three key areas. Firstly,

an initial preliminary search of MEDLINE and CINAHL was undertaken to identify the

keywords, subject headings, alternate terminology associated with the topic area and articles.

Secondly, as limiting a search to fewer databases than might be used in a systematic review is

a common approach in conducing rapid reviews (Featherstone *et al.*, 2015), a comprehensive

search of only two databases was conducted. These databases were the Cumulative Index to

the Nursing and Allied Health Literature (CINAHL) and PubMed (MEDLINE).

In any rapid review, a decision on what type of literature to include must take the research question(s) into account. Although methodological filters used most often in rapid reviews limit the types of papers to systematic reviews and/or randomised controlled trials (Featherstone *et al.*, 2015), it may be argued that this is an approach more suited to a specific clinical question. Although information garnered from multiple sources, including empirical studies, policy documents and regulatory frameworks can be considered to provide a lower level of evidential support within evidence-based practice hierarchies, the nature of the research questions in this study necessitated their inclusion. Therefore no methodological filters were used, with the result that the search included descriptive, discursive and empirical literature. Information gathered using these approaches provided valuable and valid insights into the evolution of the notion that nurses and midwives should have a defined scope of practice and that the expansion of the scope of practice enables the development of expanded clinical specialist and advanced practice roles.

The review was limited to readily available literature in English, as the timeframe did not allow for translation, requesting materials from other sources or contacting authors; this is an approach commonly used in rapid reviews (Ganann *et al.*, 2010). Since the field of specialist and advanced nursing and midwifery practice is continually evolving, the electronic search was initially limited to studies conducted in the previous three years (2012-2015) and this was in order to focus on the most recent developments in the field. In the case of research question 3, the time frame of 2012–2015 was extended back to 2005 as very few empirical studies or literature in the initial time frame pertaining to models for advanced and specialist practice were uncovered. This resulted in the inclusion of relevant literature and evidence surrounding conceptual models for advanced practice.

Standard Boolean operators AND, OR, NOT were used to combine search terms. To facilitate a systematic approach to searching the literature, the PICO framework, a framework commonly used in evidence based medicine and nursing (Yensen 2013), was adapted and used to structure the key words used in the search strategy. 'P' in the PICO framework can refer to patient, population or problem. In the case of this study 'P' referred to the population, namely specialist and advanced nurses and midwives. 'I' refers to an intervention and this was different for each of the three research questions, thus, as illustrated in Table 3, key words were different. 'C' refers to comparison or control group and is only used if appropriate, which was not the case in this study. 'O' refers to outcome, and this differed for each research question (Table 3).

Table 3: PICO search terms used in the review of the literature

Question	PICO	Search Terms
Question 1 Outcomes and impact of specialist and advanced nursing and midwifery practice	P	"Advanced nurse" OR "Advanced midwife" OR "Nurse Consultant" OR "Midwife Consultant" OR "nurse specialist" OR "midwife specialist" OR "Clinical Nurse Specialists" OR "Advanced Practice Nurses" OR "Nurse Practitioners" OR "Nurse Practitioner" OR "Acute Care Nurse Practitioners" OR "Advanced Nursing Practice" OR "Nurse Consultants" OR "Clinical Nurse Specialists" AND
	I	Evaluate OR Evaluation OR Different OR better OR Improve OR measure AND
	O	Quality OR Impact OR Cost OR "Patient Outcome" OR effectiveness OR efficient OR "Quality of Health Care" OR "Quality of Health Care" OR "Quality Assessment" OR "Quality Improvement" OR "Quality of Nursing Care" OR "Quality Assurance" OR "Health Impact Assessment" OR "Costs and Cost Analysis" OR "Health Care Costs" OR "Cost Benefit Analysis" OR "Cost Savings" OR "Nursing Costs" OR "Outcomes (Health Care)" OR "Outcome Assessment" OR "Access to Service" "Health Services Accessibility"
Question 2 Enablers and barriers to the development of specialist and advanced nursing and midwifery roles	P	"Advanced nurse" OR "Advanced midwife" OR "Nurse Consultant" OR "Midwife Consultant" OR "nurse specialist" OR "midwife specialist" OR "Clinical Nurse Specialists" OR "Advanced Practice Nurses" OR "Nurse Practitioners" OR "Acute Care Nurse Practitioners" OR "Advanced Nursing Practice" OR "Nurse Consultants" OR "Clinical Nurse Specialists"
	I	AND Facilitators OR Barriers OR enablers OR "influencing factors" OR Influences OR inhibitors OR enabling OR preventing OR empowering OR "Professional Autonomy" OR "Organizational Culture") OR "Nursing Leaders" OR "Nursing Informatics"

	O	AND "Role Development" OR CPD OR "Continuing Professional Development" OR "Scope of Practice" OR Education OR "Professional Development" OR Professional Competence" OR "Role Models" OR "Systems Development" OR "Professional Development" OR "Scope of Practice" OR "Scope of Nursing Practice" OR "Practice Guidelines" OR "Nursing Practice" OR "Practice Patterns" OR "Professional Competence" OR "Clinical Competence" OR "Competency Assessment" OR "Scope of Midwifery Practice" OR "Midwifery Practice"
Question 3 Current and potential future models of specialist and advanced nursing and midwifery practice	P	"Advanced nurse" OR "Advanced midwife" OR "Nurse Consultant" OR "Midwife Consultant" OR "nurse specialist" OR "midwife specialist" OR "Clinical Nurse Specialists" OR "Advanced Practice Nurses" OR "Nurse Practitioners" OR "Acute Care Nurse Practitioners" OR "Advanced Nursing Practice" OR "Nurse Consultants" OR "Clinical Nurse Specialists"
	I	AND "models of practice" OR "model" OR " framework" OR "framework for Practice" OR "Practice Framework" OR "Practice Patterns"
	O	AND "Role definition" OR "Role Boundaries" OR "Scope of nurse Practice" OR "Scope of midwifery Practice" OR "Practice Patterns" OR "Service Needs" OR "Health Service Needs" OR "practice Standards" OR "Role Models" OR Health Services Needs and Demand OR Health Services Accessibility

Although eliminating a manual search of reference lists is a streamlining approach sometimes used in rapid reviews, combining both electronic and manual searches has been found to provide more comprehensive results (Hopewell *et al.*, 2007). Therefore a manual search of the reference lists of the most pertinent reports, polices and articles was conducted resulting in the addition of relevant papers, reports and policy documents on both health and professional policy dimensions of the roles, including legislative, regulatory, credentialing and licensing, and service delivery perspectives. Literature suggested by the expert panel and team members was also included. Excluding grey literature is a commonly used approach in rapid reviews (Tricco *et al.*, 2015). In this study, the grey literature was only accessed to locate policy documents, reports and regulatory frameworks that were identified in the manual search of reference lists or by the expert panel and team. An exhaustive search of the grey literature would have been impractical in the limited timeframe.

Screening the Literature

As highlighted in Table 2, two team members screened the title and abstracts to assess their match with inclusion criteria. A systematic review approach would have involved screening titles first, and then abstracts, but the two steps were combined into one in order to save time. Additionally, in systematic reviews, it is recommended that screening is undertaken by two or more reviewers independently and results are then compared (Higgins & Green, 2011). However, the use of a single reviewer can be used in rapid reviews as a means of streamlining (Tricco *et al.*, 2016). In this study, a combination of these approaches was taken. In order to undertake the initial screening steps in as short a time as possible, while still maintaining the advantage of more than one viewpoint, two reviewers met together to conduct title and abstract screening in collaboration.

The outcome of the search and screening processes was three distinct, but related, collections of papers relating to the three distinct research questions. Each of the three groups of papers was assigned for full-text screening to one team member who was experienced and knowledgeable in the field. Thus, the process was streamlined by dividing the literature and not including a second reviewer to independently screen each group of papers, as is recommended in full systematic reviews (Higgins & Green, 2011). Given the relatedness of the three research questions, there was some inevitable overlap, with 27 papers appearing in two groups and 1 appearing in all three groups. Papers were excluded at this stage if they were deemed not to be relevant.

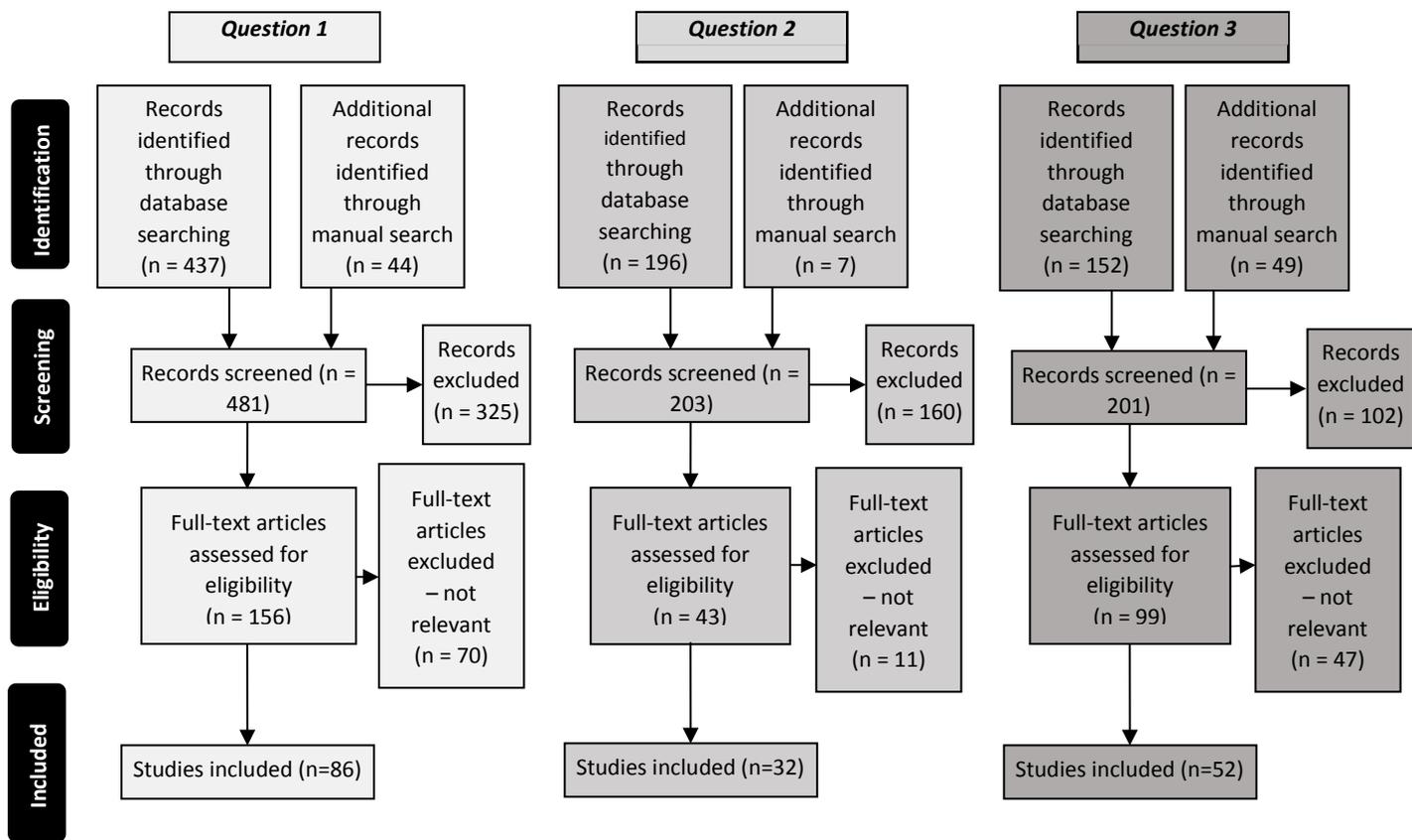The searching and screening process is outlined in Figure 1.

Identification

Question 1		Question 2		Question 3	
Records identified through database searching (n = 437)	Additional records identified through manual search (n = 44)	Records identified through database searching (n = 196)	Additional records identified through manual search (n = 7)	Records identified through database searching (n = 152)	Additional records identified through manual search (n = 49)

Screening

Records screened (n = 481)	Records excluded (n = 325)	Records screened (n = 203)	Records excluded (n = 160)	Records screened (n = 201)	Records excluded (n = 102)

Eligibility

Full-text articles assessed for eligibility (n = 156)	Full-text articles excluded – not relevant (n = 70)	Full-text articles assessed for eligibility (n = 43)	Full-text articles excluded – not relevant (n = 11)	Full-text articles assessed for eligibility (n = 99)	Full-text articles excluded – not relevant (n = 47)

Included

Studies included (n=86)		Studies included (n=32)		Studies included (n=52)	

Figure 1: Outcomes of the search strategy

The database search yielded 437 articles relevant to research question 1, 196 articles relevant to research question 2 and 152 articles relevant to research question 3 with additional articles added in a manual review of reference lists (Figure 1). Subsequently 86 articles related to research question 1, 32 related to research question 2 and 52 related to research question 3 were included as they fulfilled the eligibility criteria.

Quality Assessment, Data Abstraction and Data Synthesis

Due to the limited timeframe of the study, a full analysis of the risk of bias in each study was not practical. However eliminating the quality assessment step completely can distort the results of the review (Ganann *et al.*, 2010). Because the review included qualitative, quantitative and mixed methods studies, as well as systematic review and policy reports, it

was not possible to compare and categorise the data and to synthesise the results. Using a checklist as a tool to help assess quality in a review process is a common approach (Zeng *et al.*, 2015), as is tabulating data in the data abstraction step since presenting data in this way provides an assessable means of exploring relationships between studies (Popay *et al.*, 2006). Accordingly, in this study, a table was created by adapting and combining the STROBE (Vandenbroucke *et al.*, 2007) checklist and McMasters University Occupational Therapy Evidence-Based practice Research Group (Letts *et al.*, 2007) matrix. Three reviewers used the table to abstract data by describing items such as the purpose, the methods used, results and limitations of each paper and to conduct a limited assessment of quality. A fourth reviewer reviewed the abstracted data. In the case of disagreements, the initial reviewer re-analysed the paper in question and a discussion was held to reach joint agreement. Papers were not excluded based on the quality assessment but the quality of the data was taken into account in data synthesis.

Narrative synthesis is an approach to the synthesis of review findings from multiple sources in textual format providing an integrated interpretation of the topic area (Popay *et al.*, 2006). Each of the team members who abstracted data were also involved in synthesising that data, with the addition of a fourth team member to engage in data merging and synthesis across all three topic areas. The data abstraction tables were used to construct in narratives focusing on each research question. Data synthesis was an iterative process which included discussions between reviewers and rereading of the most significant data as well as discussions with the expert panel who provided feedback on the process and outputs. The process yielded a narrative critical synthesis of the substantive topic of concern to the study and culminated in the development of a theoretical model based on the synthesis of literature data from all three

areas. The results, including the model, were presented in a final report to the Department of Health, the study commissioner.

Conclusion

This paper has provided an account of one methodological approach to conducting a rapid review, in which the systematic review process was streamlined by: limiting the search parameters and number of databases searched; having two reviewers screen the titles and abstracts in partnership rather than comparing the outputs of an independent screening process; having three reviewers each screen full text articles without independent verification by another team member; and limiting the quality appraisal step. Close collaboration and frequent communication between team members was a feature of the approach, making it more suited to situations where reviewers are co-located.

This approach is not without its limitations. Undertaking limited quality appraisal is an approach commonly used by those undertaking rapid reviews, but it also means that uncertainty is introduced as there is the possibility of overdependence on lower quality studies (Tricco *et al.*, 2016). The fact that the research team and expert panel in this study were experienced both in the topic area and in conducting systematic and integrative literature reviews can reduce this risk, but cannot eliminate it.

This study also highlights an important general limitation of the rapid review approach. Because of the restricted timeline, there is limited time for training on the conduct of reviews (Hartling *et al.*, 2015a). Accordingly, a team conducting a rapid review must be characterised by a high level of expertise and skills in both the topic area and the methodology, which

raises a question about the accessibility of this approach for nurses or midwives who do not engage with the academic literature on a regular basis.

Another limitation was introduced by streamlining the search processes, which creates a risk of missing some pertinent evidence and therefore introduces the potential for bias. Cameron *et al.* (2007) highlight the fact that there is contradictory evidence on the correlation between extensive literature reviews and unbiased conclusions, since very broad literature reviews can actually introduce bias because harder to find studies are often of lower quality. However, as a comparable full systematic review was not carried out on this topic, it is impossible to say what was overlooked in the search and whether bias was introduced.

Nevertheless there are also advantages to the rapid review approach, the most obvious being the ability to conduct a review in the required limited time frame, which in turn, allows the evidence to inform a time sensitive policy making process. In the present study with a pre-defined and restricted timeframe and the policy imperative associated with the review, a full systematic review process would have been impossible. Systematic reviews and rapid reviews have been shown to lead to the same broad conclusions (Cameron *et al.*, 2007); thus researchers using a rapid review process can have confidence in the value of the review to inform pressing policy decisions.

Additional benefits of this rapid review approach were provided by ongoing engagement with stakeholders throughout the process. Firstly, the Department of Health was consulted at intervals throughout the rapid review process, ensuring that the resultant review was useful for their purposes and closely addresses their needs. This type of consultation has been highlighted previously as a distinguishing feature of rapid reviews and an advantage of the

approach over a systematic review approach (Hartling *et al.*, 2015a, Khangura *et al.*, 2012). Secondly, an expert panel was consulted several times during the short study and they provided input on search parameters and topics considered for the review, advice on manual searches for additional papers and feedback on data abstraction and synthesis. Their input was invaluable, which reinforces the view that expert panels should play a role in ensuring that the nuances of the topics in a rapid review are taken into account (Cameron *et al.*, 2007).

Establishing one clearly defined methodological approach for all rapid reviews in nursing and midwifery was not the aim of this paper. Indeed, this would be counterproductive, since the major advantages that rapid reviews have over systematic and other reviews are their flexibility, adaptiveness and responsiveness to user needs (Cameron *et al.*, 2007, Hartling *et al.*, 2015a). As exemplified by the review process presented in this paper, researchers or practitioners planning to undertake a rapid review should be guided in their approach by taking account of timelines, the nature of the research question(s) and the acceptable level of methodological rigour (Featherstone *et al.*, 2015). Clearly defined research questions are particularly important in undertaking rapid reviews as well as having team members skilled in conducting reviews (Khangura *et al.*, 2012, Featherstone *et al.*, 2015). Key considerations for any researchers when reporting their results should be transparency in reporting the particular rapid review methodological approach used, as well as highlighting the limitations of that approach. Good quality evidence synthesis should remain at the heart of any review, whatever the process used.

There are a number of phrases used in the literature to describe a rapid review, including rapid systematic review, rapid evidence assessment, ultra rapid review, rapid response, rapid health technology assessment, rapid narrative review and rapid assessment, highlighting a

need for consistency in terminology used. Additionally, more research is needed to compare the results of rapid reviews with systematic reviews on the same topic to assess the impact of streamlining the systematic review process.

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