

How to do (or not to do) a critical literature review

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Abstract

More and more students are required to perform a critical literature review as part of their undergraduate or postgraduate studies. Whilst most of the latest research methods textbooks advise how to do a literature search, very few cover the literature review. This paper covers two types of review: a critical literature review and a systematic review.

Keywords: *Critical literature review, postgraduate studies, systematic review, literature search*

Introduction

Over the past years there has been an enormous boost to pharmacy practice research through the work undertaken by undergraduate and postgraduate students through their research project. A study of teaching, learning and assessment in 16 UK schools of pharmacy documented the amount of effort put into the research project by both students and staff (Wilson, Jesson, Langley, Clarke, & Hatfield, 2005). This study noted that as a consequence of the new NHS research governance requirements, changes are being made in the type of research project undertaken in schools of pharmacy at undergraduate level. Whilst more group projects are being undertaken instead of individual work, there is the likelihood that more desk research and literature reviews will be required.

Good critical literature reviews tell a story and help to advance our understanding of what is already known. Although there is no tradition in pharmacy practice research of literature review as a research method in its own right, the newly emerging systematic or meta-analysis review has found favour. In the majority of academic journals, space limitations tend to lead to a 'stringing' approach to reviewing past work. Stringing involves making a short summary statement and then listing authors. It does not allow for critical analysis.

For example, Wilson and Jesson (2003) summarised key articles covering ways of improving repeat prescribing: "A variety of methods have been used, including visits of community pharmacists to GPs to discuss prescribing in specific therapeutic areas (NPC/NHSE, 1998), review of patient records by pharmacists (Sykes, Westwood, & Gillingham, 1996; Goldstein, Hulme, & Willits, 1997; Granas & Bates, 1997) and clinical medication reviews at the practice or patient's home (Burtonwood, Hinchcliffe, & Tinkler, 1998; Mackie, Lawson, Campbell, Maclaren, & Waight, 1999; Krska, Cromarty, Arris, Jamieson, & Handsford, 2000; Zermansky et al., 2001)".

The purpose of this paper is to show how to write an effective literature review. It provides a number of tried and tested techniques of what to do, and what not to do, from sorting the material accessed during the search to writing up the analysis. Part one covers the narrative critical review. Part two describes systematic review and meta-analysis. Why is this paper needed? There is ample advice on the search for published material in most research method textbooks. However, much less is written about what to do after you have found material and how you should go about writing a critical review of what you have found.

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Indeed, there is no one standard ‘model’ we can recommend on doing the review, it will vary by subject and discipline. The following suggestions work well for pharmacy related projects, but can equally be used for projects in other disciplines.

Writing a literature review is a neglected area of expertise in research. Although Hart has written the key textbooks devoted solely to the literature review (1998) and literature search (2001), you may not have time to read entire books. Although most textbooks describe the search process, what is missing is detail on the process of review, analysis and presenting the written result.

Part one

What is a literature review?

Hart (2001) defines of an academic literature review as:

The selection of available documents (both published and unpublished) on the topic, which contain information, ideas, data and evidence written from a particular standpoint to fulfil certain aims or express certain views on the nature of the topic and how it is to be investigated, and the effective evaluation of these documents in relation to the research being proposed (Hart, 2001, p. 13).

So, a literature review is a narrative account of information that is already currently available, accessible and published, which may be written from a number of differing paradigms or perspectives, depending on the standpoint of the writer.

- What you add is an effective, analytical, original assessment of previously published information.

Sometimes you may be involved in a project which is an extension of work already performed, or based on an existing theory, and therefore will be discussing published data in the same context as the original authors. Other times you may be involved in a reappraisal of published data using an entirely different paradigm or in a context that was not considered by the original authors. Here you will be providing an original analysis of published data.

Why undertake a literature review?

The aim of doing a literature review is to find out what is already known about a specific topic. Why is this important?

Knowledge doesn’t exist in a vacuum and your work only has value in relation to other people. Your work and your findings will be significant only to the extent that they’re the same as, or different from, other people’s work and findings (Jankowitz, 1995, pp. 128–9).

The objectives of a literature review may therefore be:

- To summarise current knowledge.
- To generate and refine your own research ideas.

- To provide a critical review which demonstrates:
 - awareness of the current state of knowledge in the subject area (description skills);
 - a synthesis of resources showing the strengths and limitations, omissions and bias (critical skills); and
 - how the research fits into this wider context (analytical skills).

When undertaking a literature review you should always be clear about why you are doing the review, and what outcomes you expect from the completed work. This will help you plan how best to undertake the task.

When would you write a literature review?

There are many occasions when you might write a literature review. Your purpose is probably for an academic qualification, but there are other circumstances when a literature review is required.

- a short section in a research proposal—showing the outcome of a preliminary search and review;
- the early chapter/s in a dissertation—here you need a more in-depth formal comprehensive review;
- an introductory section in an academic paper;
- a review in its own right (Brugha & Varvasovsky, 2000); and
- a systematic review to inform evidence based policy or practice.

In text book methodology terms, performing a literature review is desk research—the documentary review phase of the study using existing secondary sources. In all cases the review should be presented in the context of the purpose for which it is required; often in the context of your own proposed research.

For most purposes a considerable amount of searching and reading is essential just to identify existing information to be used for the review. Beware of using only one source of information, such as a textbook, which seems to provide a comprehensive review of current knowledge. Not only are you in danger of plagiarism, and bias, you may also be repeating a false interpretation of something. Compare and contrast a range of sources of information to satisfy both yourself and a reader that you have produced a valid and comprehensive review.

So, to summarise:

- undertake your own search; and
- ideally go back to the original source and read it yourself (this may not always be possible because of time, cost and access problems).

What is new is the interpretation and analysis that you put on what you read.

The search stage

Use several sources so that there is not an intentional bias in what you choose to review. Some articles are 'me too' papers, which add nothing new to existing knowledge, so avoid basing the review on one perspective. Seek out opposing theoretical stances. If it is an empirical research study, seek out similar studies, which use alternative methodologies. The quality of the review will, to a great extent, depend on the effort put into this stage of the review process. Without the identification and study of a comprehensive range of information, you cannot hope to produce a comprehensive and informed review!

It is a good practice to include the search details so that the reader can judge the scope of the review as shown in Box 1. It can always be placed in an Appendix, include key words or other details of the search strategy. This information will allow the reader to judge how appropriate the review is with respect to its stated purpose.

How you do your search will determine what is found: the ability to perform an effective literature search is a skill that all researchers have to develop. The University Library can usually advise on how to navigate library sources. More and more people use the Internet as a major source of information. An American resource is provided by Fink (2005) for students using the Internet as their search base. An earlier text has been revised so that the primary purpose of this textbook is to teach readers to identify, interpret and analyse published and unpublished Internet research literature. This resource can help

you to get the most benefit out of internet searches, but you must always consider the effect of limiting your search to one medium.

From search to analysis

Once you begin searching you will identify much information. The search will typically focus on academic books and journal articles. However, depending on the purpose of your research and the topic it may be possible (and necessary) to use popular media such as newspapers and business magazine articles. There will also be policy documents and reports. In some instances it may include 'grey' literature, which are research reports not in the public domain.

Summary:

- Do not rely solely on abstracts, try and obtain the complete article.
- Try not to rely solely on electronic websites. Not all good material is on the internet. Although the quantity and quality of information available electronically is increasing all the time, you should still be careful not to rely on electronic sources only and the assumption that nothing else is available.
- Undertake a manual search in the library. Sometimes you find work linked to your purpose in unexpected places. Scan the bookshelves. Look at the contents page of journals; they can often trigger new ideas, identify new concepts, theories and authors. Sometimes there are bibliographies of topics, but they may not be up to date.
- Examine and follow up the references at the end of each journal paper that will give you more ideas and sources.

Box 1. An example of a literature search report.

Topic and search terms: pharmacy + public health.

The review was based on a selection of published literature predominantly in the pharmaceutical press. The time frame was 1980–2003.

Key words: Public health. Pharmacy.

Only papers which discussed public health in relation to pharmacy were selected.

Two comprehensive bibliographies have previously been compiled on pharmacy health promotion. The first by Anderson (1989) documented all published UK research. The second by Anderson and Blenkinsopp (2002) reviewed international publications of pharmacy health development initiatives, using a systematic narrative synthesis review, which provides an annotated bibliography showing the essence of each programme and gist of the research findings in an appendix.

The search covered:

The Pharmaceutical Journal, International Journal of Pharmacy Practice, Journal of Social and Administrative Pharmacy.

Conferences abstracts:

Health Service Research and Pharmacy Practice, British Pharmaceutical Conference, UK Public Health Forum.

Other items were recommended by colleagues.

The search revealed a limited number of relevant published papers on public health and pharmacy, therefore there was scope for a new study

(Jesson and Bissell, 2006 (9:1 in press)).

Good journal articles should summarise the current theory, authors and work at the beginning of the paper (but beware this is stringing, not in-depth analysis).

When you are ready to start the analysis begin by reading two or three papers, see what they have in common. Then note down, how do they differ? What is the same? Then draw up an analytical framework using a set of key issues or concepts and questions through which the papers can be compared. For example, if you were an astronomer who believed the world was the centre of the solar system around which the stars rotated, then you should state this as it will obviously affect how you interpret the finding of other astronomer’s observations! The framework will vary according to the subject of focus and discipline but a common framework might consist of some or all of the following:

- theory: what theories, if any, are used in the papers?
- conceptual variations: how have authors operationalised (used) the key concepts?
- policy: is it policy intention, implementation or outcome that is being discussed?
- empirical findings: has anyone tested out the theory, if so, in what context?
- research methodology used: has the topic been approached from a range of methods, or all the same?

Figure 1 is an example of how we organised the different types of material that were obtained after doing a literature search for a project which aimed to investigate factors contributing to wastage of medicines in secondary care. A similar diagram could be produced for any topic. This preliminary categorisation of documents helped us to control the complexity of the material found, and prevented us being

submerged by masses of undifferentiated material. It was the start of the analytical process.

Once you know what type of material you have, then the next stage is an in-depth content analysis, with a focus on key issues or findings associated with each group of documents. In the example of the waste medicines project we found that

- There was a vast amount of published literature in primary care-based studies.
- Information on quantity, type and cost of waste medicines was available, particularly in primary care.
- Procedural, prescribing-related and patient-related causes of waste had been studied, again mainly in primary care.
- Few UK-based studies of medicines wastage in secondary care were identified.

Figure 2 shows the typical analytical process; that is the stages to go through when critically assessing the literature the search has identified. If the purpose of the literature review is to set up the knowledge context for a research project, the final step is recognising the knowledge gap—usually the area that your research plans will address. To fill the gap will be the aim of the research project!

Producing a narrative critical literature review

Different disciplines have differing expectations about the format that a narrative literature review takes, however, we have found the considerations below useful in our own work and in advising students. The key test is quality of review. A good review will be more than descriptive. It will be original, perceptive and analytical: that is it will be a critical review. It will be based on a fair selection of sources, and will critically compare and contrast the ideas and

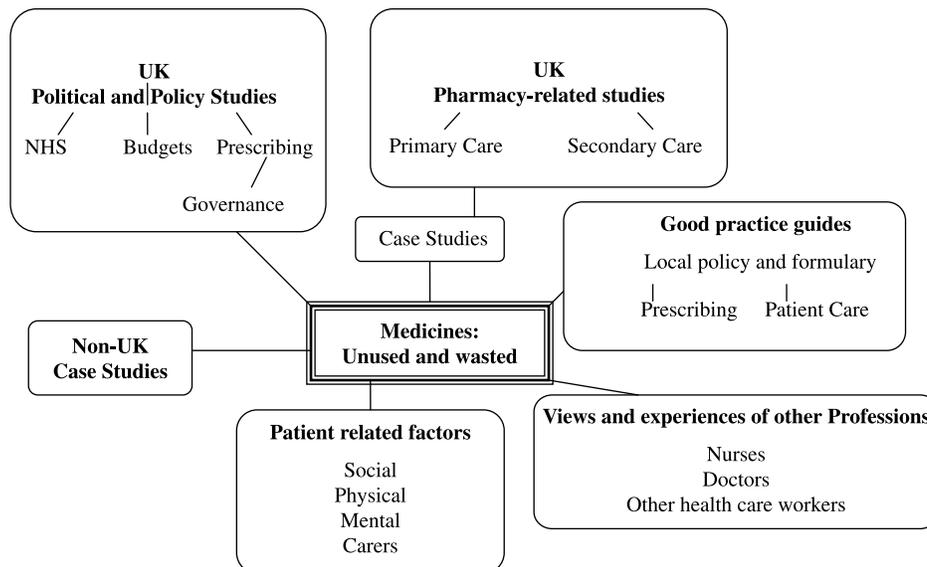


Figure 1. Example of sorting the resources you have identified to prepare for analysis.

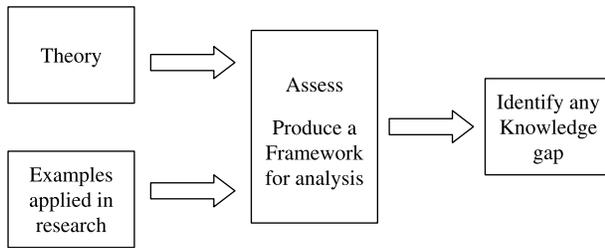


Figure 2. The analytical process.

evidence, thereby identifying the gap of what still needs to be known and researched. It will be presented in themes.

- An ‘ordinary’ review can be descriptive, mechanical, whereby you simply summarise the information from a range of documents.
- A literature review is not a list describing or summarising one article after another.
- A review in which every paragraph starts with the authors’ names is not a good review—it is a bibliography list.

The presentation

A literature review needs a structure. Think of it as a stand-alone essay with:

- an introduction telling the reader what topics and issues are covered, what else there might be, but which is not covered (Box 2);
- numbered and named sections, or use sub-headings to organise the themes within the material; and
- a conclusion or summary of findings at the end to reiterate the main points to the reader.

Box 2. Example of the structure of the literature review introduction to an applied research project proposal. A similar structure can be used for project reports.

Introduction section. What this literature review is about—the subject matter, how does it relate to your research aim and objectives?

Where did you look for sources of information, e.g. the *Pharmaceutical Journal*, *BIDS*, *Medline*, *Pharmline*, *Cochrane database*. Are there any core textbooks that you have used? If it is a topical issue, is there anything in recent quality newspapers, on quality websites (e.g. DOH) or professional journals?

What did you find, e.g. there were a lot of papers on your particular topics, or there was not very much. So, this tells the reader that it is a well discussed and widely researched issue, or it is new and you have the chance to make a valuable contribution to the debate.

What if you cannot find anything? Can you provide evidence that there really IS no relevant information out there (is your search strategy appropriate and robust?). If there really is nothing relevant available in the specific area interest, then you have to be creative and think around your topic, drawing on wider, but relevant material.

This introductory section then concludes by telling the reader what exactly follows, for example.

The review has shown that there are numerous theoretical perspectives and models on change management which have been developed in schools of management, psychology, sociology and economics. For the purposes of the research proposal the review will concentrate on just two aspects of change management: planned versus emergent change and developmental, transitional and transformational change.

Other points to remember:

- it needs to flow; it should not be an aimless description of unlinked theories, ideas and so on. Try and link up each paragraph with the next one; and
- at the end of the review ask yourself ‘so what?’. Then that takes you onto the summary and conclusion. If you have noticed a gap in knowledge, repeat it at this point.

Think what you want to communicate to the reader/marker. What points do you want to make, what information provides evidence for the validity of your views? Have you provided a reasoned argument for the points you want to make? You need to structure the review such that the reader is led through the text and is able to understand and evaluate the points you are trying to make. It is useful to start off with an introductory section where the reader is informed of the purpose of the review, how it was carried out, and what is included in the review (Box 2). This should lead on to the main body of the review.

The body of the review

The main part of the document is where you present the review. The following suggestions should help you present this section in a useful and easily followed format.

- Organise the review by the use of sub-headings (Box 3).
- Show how far existing literature goes in answering your research question.

Box 3. Example of a literature review structure (from an MPharm undergraduate project report).

A study exploring weight gain associated with antipsychotic drug use.

- 5.1. Introduction
- 5.2. Schizophrenia and its treatment
 - 5.2.1. Individual and public health aspects of schizophrenia
 - 5.2.2. The Mental Health Act
 - 5.2.3. Treatment of schizophrenia
- 5.3. Antipsychotic drugs
 - 5.3.1. Side effects of antipsychotic drugs
- 5.4 Prescribing issues
 - 5.4.1. Guidelines and clinical care
 - 5.4.2. Governance
- 5.5. The incidence and consequences of weight gain
 - 5.5.1. General health issues
 - 5.5.2. Social issues
 - 5.5.3. Issues specific for schizophrenic patients
- 5.6 Conclusion.

- Juxtapose (place side by side) different author's ideas within a paragraph.
- Group the material in concepts, ideas, topics, methods and so on, rather than jump from one topic to another then back, it confuses the reader and does not allow you to argue your points.
- Only use quotations that illuminate, or where you cannot summarise without plagiarising.
- Summarise the key ideas, compare and contrast these ideas.
- If you have a theory, to what extent has the theory been tested in your specific topic sector?
- Do check that your review is up to date (check the publication dates of textbooks).
- Do ensure you have presented an unbiased representation of the current understanding in your field of research. Have you included sources that contradict, show different perspectives or sides of an argument, not just presented sources that favour one position? For example, arguments for and against the use of HRT.
- Do highlight gaps in knowledge, lack of conceptual or theoretical or empirical clarity, as well as areas where all the literature is in agreement.

The final review should present to the reader a coherent and cohesive argument, setting the context for your research.

The structure of your review is very important. A well-structured review is both easier to write, and to understand! Each review is individual, however, so develop a structure which is appropriate for your own topic and the type and quantity of information to be included.

Some writers begin by presenting material from one author, then another, then another—but that is a list.

Do not write your review as a list of sources in separate unconnected paragraphs like a bibliography or a 'shopping list' (Macinko and Starfield (2002) for an example of an annotated bibliography on equity in health).

To help develop a critical analytical approach you could group work together by using linking words such as also, additionally, again, similarly and a similar opinion. Alternatively you could group contrasting ideas together, using words such as however, conversely, on the other hand, nevertheless, a contrasting opinion and a different approach. The use of such linking of ideas is also a device to avoid starting every sentence with an authors' name! When you report on the ideas or arguments proposed by an author use words such as "According to Smith" ... or "as Brown argues convincingly" or "the author states..." and avoid words such as "Brown thinks" or "Smith feels".

The summary and conclusion

You want the reader to remember the main points of your review; do this by providing a clear and brief final section. This section must give an overview of the review and a balanced conclusion. It is not the place to introduce new material. Note any gap in knowledge again, particularly where this provides a rationale for the project you are proposing.

Managing information—referencing the material accurately

As we noted earlier, knowledge does not exist in a vacuum. Most research methods textbooks and journals tell you how to reference (known as citation). This section covers the basic information you need to reference accurately.

Why should you reference all your work?

- It shows that the work is grounded on existing knowledge.
- It is an audit trail that enables the reader to identify and access the material that has been used or referred to.
- It is unethical not to acknowledge the work of others.
- It is cheating, fraud and plagiarism to present the ideas or work of others as your own (check that every paragraph is sourced).

Plagiarism. What should you reference?

Plagiarism of ideas occurs when you paraphrase facts or arguments without citation. Anything you get from somewhere else (be it a book, journal paper or news item) even if you express it in your own words needs to have a citation (that is the source must be referenced).

Plagiarism of words happens when you copy another author exactly without putting the words in italics or quotation marks. Even if you provide reference information you still need to put the text in quotation marks or italics. Where you make quotations you must give the page number.

So, to summarise, reference all directly copied quotations and any summary of ideas, paraphrased that derive from something you have read must be referenced. To check your work, look at every paragraph and ask yourself, 'how do I know that?'

How should you reference? The two most common referencing systems are Harvard and Vancouver. These systems set out common standard procedures for referencing within the text and at the end of your text. The *Journal of Pharmacy Education* uses the Harvard system of referencing, and instructions for authors can be found at <http://www.tandf.co.uk/journals/authors/gpheauth.asp>. The *Pharmaceutical Journal*, however uses the Vancouver style of referencing, where citations are numbered sequentially as they appear in the text, and a numbered reference list is provided at the end of the article. Details of the referencing system used by the *Pharmaceutical Journal* can be found at <http://www.pharmj.com/about/advicepj.html#papers>. You should ensure that you use the correct citation method recommended for your review, and use it fully and consistently during your review.

What your critical literature review needs to show

Just to recap, you should

- Provide the reader with the key academic theories in your topic area.
- Include the current opinions of the key writers, or scholars, in your topic.
- Demonstrate an up to date awareness of theory, and use of concepts.

- Assess the strengths and weaknesses of previous work.
- Through clear referencing enable others to follow up the work you cite.
- Use accurate and complete referencing.

Part two*A systematic review*

A systematic review is different to a narrative critical review. A systematic review is a research method in itself; it can be considered a "quasi experiment" which derives its results from data already described in the published literature. A systematic review is a comprehensive (and if possible complete) review of published articles selected to address a specific question that uses a systematic method of identifying relevant studies in order to minimise biases and error. The details of the approach used in a systematic review must be documented in the methods section of a project report.

Khan, Kunz, Kleijnen, and Antes (2003) provide a useful definition of a systematic review:

A systematic review is a research article that identifies relevant studies, appraises their quality and summarises their results using scientific methodology.

One technique used to summarise and combine the results of clinical studies is meta-analysis (see later). Detailed advice on undertaking systematic reviews on health and social care topics is available at the Centre for Reviews and Dissemination (Khan, Popay, & Kleijnen, 2001) and from the Campbell Collaborative website (www.campbellcollaboration.org/guidelines). A general guide to undertaking a systematic review to contribute to evidence based practice in healthcare was also published in the *Pharmaceutical Journal* (Li Wan Po, 1997). An example of a recent systematic review and meta-analysis of results was reported on-line in the *Lancet* (CTT Collaborators, 2005). This systematic review combined the results from 14 separate clinical trials of ACE inhibitors, and showed that statins could reduce the incidence of major vascular events by a third. This conclusion could not be reached from the results of any of the individual trials, showing the power of the method of systematic review and meta-analysis.

Three key features of a systematic review

Three features distinguish a systematic review from an ordinary narrative critical literature review. First, the search process is more rule-driven and rigorous than in an "ordinary" literature review. There has to be an explicit statement of the criteria that are being applied, an attempt if possible to cover all published material and any evidence in non published forms from: electronic

sources, print sources—journals, textbooks, research reports, hand searching or ‘grey’ literature. This helps to avoid selection or publication bias. Sometimes it is easy to take the more readily accessible material, which is in the major indexed databases, but this would defeat the purpose of a systematic review. Publication bias occurs where journals have a tendency to promote a given approach, and reject papers which have a negative stance or produce inconclusive findings; therefore it can be the case that one view predominates in the literature.

Second, there should be transparent criteria for abstracting the data from studies and for assessing the quality of evidence on which they are based. This should be made explicit in the methods section of any systematic review.

Before any analysis of the combined data from different studies is performed, a clear statement of the

inclusion and exclusion criteria applied to the studies identified must be made. This can be illustrated in Figure 3, which shows the decision steps at each stage of a systematic review designed to examine gender effects found in outcome measure of clinical trials conducted on new molecular entities (NMEs) approved by the FDA from 2001 to 2003.

There is often a “quality” threshold applied before a study is included in the review. Indeed, a “hierarchy of study designs” has been suggested, in which random controlled methodology is typically the gold standard (and therefore would have a high weighting in any analysis); qualitative interviews and narrative studies have least credibility. The methods used in each publication should be considered, and the power of each study determined before all the data available is summarised. For example, the results of a multi-national double blind clinical trial of

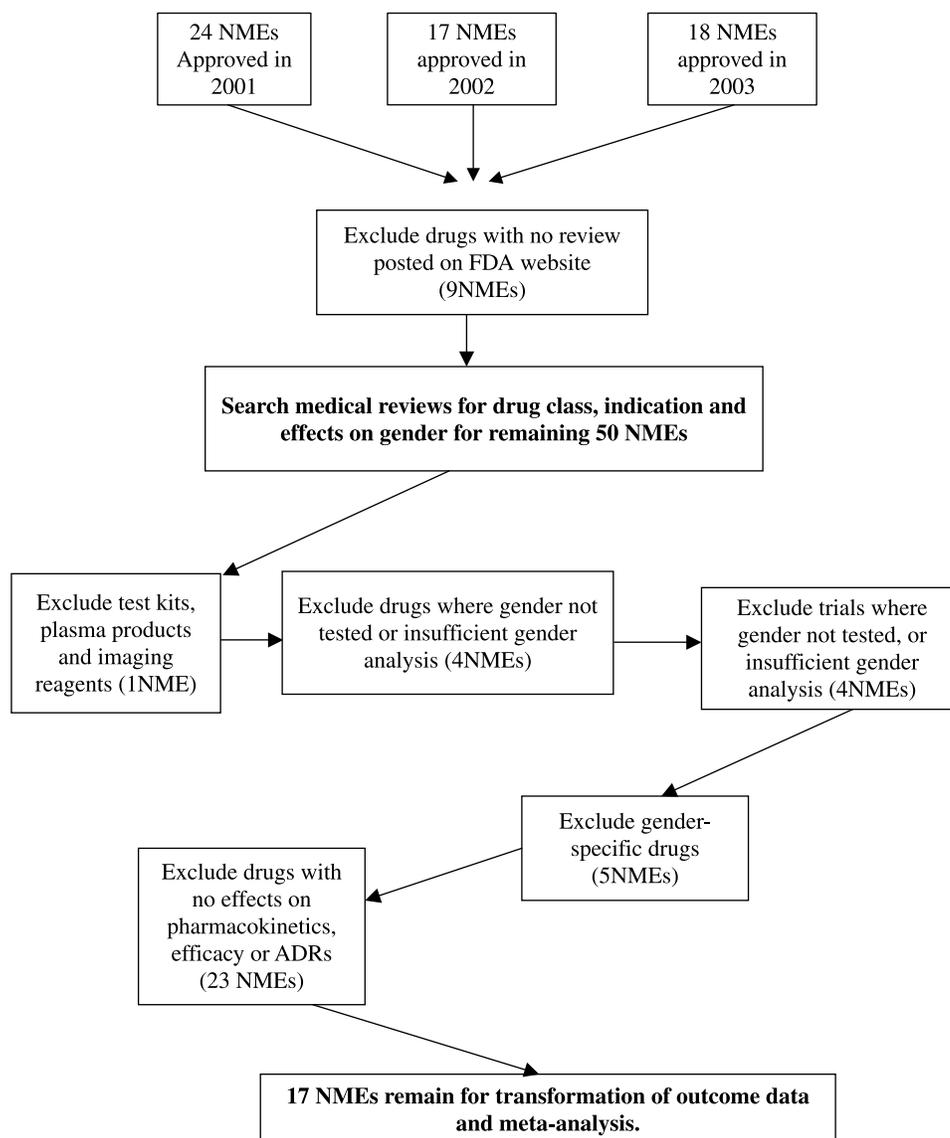


Figure 3. Application of inclusion criteria during a systematic review of gender effects in clinical trials of NMEs approved by the FDA between 2001 and 2004, from an MPharm undergraduate research project.

a drug involving thousands of patients should be given more weight in any meta-analysis than a report of the use of the same drug in a few self-selected patients.

This assessment of the quality and therefore of the power of the data from each report is crucial to reaching valid conclusions from a systematic review. Therefore, the third component which separates a systematic review from a “normal” literature review is the depth of understanding the reviewer needs of each report. The reviewer must be able to answer a number of detailed questions about each study in a systematic review, in order to assess their relative power. Questions used to assess power of a study must be appropriate for the topic under review, but the following factors are often taken into account:

- design of trial (with double blind clinical trial having most power, and case studies less);
- population, sample and size of study;
- nature of intervention;
- validity of measurements made; e.g. does the study measure and report relevant variables, is the blinding process effective? and
- is the reporting of the trial complete and transparent.

The use of quality assessments is an area of intense debate amongst researchers involved in producing systematic reviews. It is vital, however, that the questions used to assess the quality of the studies in a review is appropriate for the topic under consideration! When reporting the methods used in a systematic review there should be explicit statements about how the quality of the studies included in the review has been assessed, and how such quality assessments have been used (e.g. have you only included double blind clinical trials in your systematic review). This allows the reader to understand how a judgement was made about the cumulative impact of the research reported in the review.

Meta-analysis

A meta-analysis is sometimes used to combine the data identified during a systematic review. It is a statistical method used to combine the outcomes of individual trials (after conversion to suitable measures) in order to produce data with more power than the individual studies. Meta-analysis is most commonly used in quantitative research studies (typically clinical, but also policy studies), where the statistical analysis of a large collation of data produced from individual studies is possible. This exercise aggregates sample data from a number of primary research studies to provide a cumulative estimate of the likely effect (or impact) of a particular intervention (Davies, 2003). Meta-analysis is most frequently used in health service and clinical research.

Conclusion

In these days of evidence based practice the ability to critically assess published literature is a skill that all pharmacists should have. The ability to review several papers in a critical or systematic manner is part of that learning process. Doing a critical review requires a different approach, possibly involving a more creative design, than the abstraction of information implicit in a systematic review. This paper is designed to inform the improvement and skill development of anyone who has to review published pharmacy practice literature. It provides some ‘how to do it’ advice, based on current good practice for critical literature review and systematic reviews.

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Useful resources for systematic reviews

Campbell Collaboration has detailed guidelines for producing high quality systematic reviews on social and behavioural interventions and public policy, including education, criminal justice and social welfare www.campbellcollaboration.org/guidelines.

Cochrane Collaborative provides information on health care www.cochrane.org

Cochrane Handbook for Systematic Reviews of Interventions (Edition 4.2.5.) (Editors Green S, Higgins J). In: *The Cochrane Library*, Issue 5, 2005. Chichester: Wiley. This is a very useful text which takes you through the full process of systematic review and meta-analysis (from formulation of the question to presentation of results) and can be viewed and downloaded from <http://www.cochrane.org/resources/handbook/index.htm>

CRD Centre for Reviews and Dissemination. Reviews on health and social care effectiveness www.york.ac.uk/inst/crd

EPPI-Centre. Evidence for Policy and Practice. An information and Co-ordinating Centre for social interventions on education, health promotion, perspectives and participation <http://eppi.ioe.ac.uk>

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Social Care Institute for Excellence has an electronic library for social care www.scie.org.uk.