1 Research and Allied Concepts

Introduction

This book is designed to develop your appreciation of some of the key features of research methodologies and approaches. By completing the exercises in this book, you will gain a better knowledge and understanding of the research processes involved. From the outset we should state that this book is for healthcare professionals and students who are new to research and, therefore, we have assumed that you have no prior knowledge of research. Consequently, we have avoided using unnecessary jargon that may confuse you and make it difficult for you to feel confident about undertaking your own research proposal. After all, that is the most interesting and important part of your involvement with 'research'.

To begin with, this chapter offers some definitions and discussions about:

- research;
- clinical audit;
- comparison of clinical audit and research;
- clinical effectiveness; and
- evidence-based practice.

The discussions in this chapter are put into context and discussed within the current healthcare climate. The chapter concludes with activities relating to practice for you to undertake. These, and the activities in the other chapters, will help you to understand fully the content of the chapters by your undertaking something related to them.

What is research?

Let us start at the very beginning and discuss what we mean by 'research'.

The word 'research' is frequently used in everyday conversations, but has different meanings according to the context in which it is used. This chapter specifically relates to research undertaken within a healthcare context. In healthcare we are always looking for answers to questions that are related to the health and well-being of our patients/clients. For example, we may wish to find answers to questions such as:

- What are patients' perspectives concerning a new type of treatment?
- How does the effectiveness of one type of wound dressing compare with that of another?
- How do healthcare professionals feel about working in a multidisciplinary team?

And so on.

So, from what you have just read, you can see that research begins with a question. Now, you may think that we know the answers to some of these questions – and you may be right – but unless we subject these answers to a scientific process, then our knowledge and understanding could be said to be intuitive at best, and at worst quite possibly be based on guesswork and hunches.

The role of research, therefore, is to provide a systematic framework for obtaining answers to questions by studying and gathering the evidence in a scientific manner. In other words, the process of arriving at an answer to a question in the context of healthcare research has to follow certain rules. These rules are set out in different philosophies which underpin the type of research that is being undertaken. By following these rules our research can be judged by others to be objective, valid and reliable – three important tests of how good a piece of research is. So, to simplify: research is a way of thinking about a problem in a systematic and scientific way. We call this way of thinking about a problem a **research process**.

We can now take a few moments to look at the stages of the research process (see Table 1.1). As you can see from Table 1.1, the process of undertaking research involves eight stages which we need to work through when preparing a research proposal and doing the research study itself. These eight stages are:

1. Conceptual – conceiving your proposed study (chapters 1 and 2).
2. Question/hypothesis formulation – how you set about determining the question or hypothesis that will need to be answered or proved/disproved by the research (chapter 3).

3. The formulation of aims and objectives – these are very important because they follow the determining of the research question or hypothesis, and they let you set out what you hope to achieve with your research study within the context of the research question or hypothesis (chapter 3).
4. The planning and design of the research study – this is where you ask (and answer) the questions: Why are we doing this research? How are we going to do it? Where are we going to do it? You will need to make a number of decisions about how you are going to set about answering your research question or proving/disproving your hypothesis (chapter 5).
5. Collecting data – this stage consists of your collecting the data for your research study in order to achieve your aims and objectives as well as answer your research question or prove/disprove your hypothesis (chapter 8).
6. Analysing your data – this is the part of the study where you start to make sense of the data you have collected. Analysing your data will allow you to answer your research question or prove/disprove your hypothesis. However, this is not the end of your research; the next stage, presenting your research findings, is an important part of any research study (chapter 9).
7. Presenting your results and findings – this is the stage in which you organise your findings in such a way that they are clear, interesting, accessible, understandable and relevant to others who may read the report of your research study (chapter 10).
8. Disseminating your results – this is the final stage of your research when you send your results to all relevant and interested people/organisations, by writing papers and/or presenting them at conferences (chapter 10).

You may have come across some words that are new to you in this list, but do not worry, as you work through this book and the accompanying web program, you will become familiar with all these terms, and many others, and understand them and their significance to the process of undertaking and reading research studies. If you think of research as being a foreign language, then, just as you have to learn a new vocabulary and grammar, and their contexts, so it is with learning about research. Research has its own vocabulary and 'grammar' (methodology and philosophy) and you have to learn these within the context of a research study. Similarly, just as it is better and much easier to learn a foreign language when you are living with it – for example, living in the country where the language you are studying is spoken – so you will learn about research and understand it much better and far more easily if you are learning it in a 'live' situation – when doing some research. This is the reason for encouraging and helping you to write a research proposal (whether for an actual research

Table 1.1 Stages of research.

Stage 1 Conceptual	**What?**	This involves thinking, reading, theorising, rethinking and discussing your ideas with colleagues and experts in the field or in your area of interest.
Stage 2 Question/ hypothesis formulation		At this point, you would be reading the related literature to (i) get an idea of what has been done and how it has been done; (ii) assess the results of the research and gaps in the literature; and (iii) formulate your question/hypothesis which will provide direction for the research. (A hypothesis is a tentative statement to explain observations or facts and which requires experimental investigation for verification.)
Stage 3 Formulate aims and objectives		Aims are statements of what the research sets out to achieve. In other words, what do you want to find out? Objectives are a set of specific statements pertaining to the aim of the research and must fulfil the requirements of the aim. Aims and objectives are therefore interrelated and the latter can be seen as being more detailed information about the aims. They are the intellectual activities that the researcher will perform throughout the research process.
Stage 4 Design and planning	**How?** **Whom?** **Where?**	The researcher must make a number of decisions about how to go about doing the research. These methodological decisions have implications for the *validity* and *credibility* of the study findings. If the methods used to collect and analyse the data are flawed, then the conclusions will be flawed also and doubtful. At this stage of the research process, you will be involved in: • *Selecting the research design*: i.e. the overall plan, how to get answers to the question being studied and how to handle some of the difficulties encountered in the study. • *Thinking about a theoretical framework*: you may wish to use a theoretical framework to structure and analyse the research. • *Identifying the population* to be studied. • *Selecting measures for the research variables*: i.e. defining the research variables and clarifying exactly what each means. • *Designing the sampling plan*: decide on your sample and how you will collect data, bearing in mind time and cost, and level of skill required. Sampling procedures include probability sampling and non-probability sampling (these are discussed later in the book). • *Deciding on location*. • *Finalising and reviewing the research plan*: showing your research plan to colleagues to get constructive criticism. The research plan is sometimes referred to as the research proposal. • *Ethical considerations*: you will need to discuss this with your R&D lead (or their equivalent) to ascertain what other approval may be required. Approval **must** be obtained **before** data collection. • *Pilot study*, if appropriate.

Table 1.1 (*Continued*)

Stage 5 Empirical stage – data collection	**How?**	This involves the collection of the data and approaches used to answer the research question/hypothesis. More than one method may be used; the commonest are interviews and questionnaires.
Stage 6 Analytic stage	**How?**	This is the process of systematically explaining the data so that their meaning, structure and relationships are clearly articulated. The analysis will depend on whether the approach used is quantitative or qualitative. The key point is that the information gathered will be transformed so that it provides useful information and lets you reach conclusions. Qualitative data involve integration and synthesis of narrative data, whereas quantitative data are analysed through statistical procedures to describe, summarise and compare data. Whatever approach you use, the analysis must be carried out in relation to the research problem.
Stage 7 Presentation of results/findings	**How?**	You should put a lot of thought into how you present your results or findings. For example, consider whether figures or graphs are the best way to bring out your data and whether these will help the reader follow what you have found. Tables are also useful for presenting information as they can provide a complete picture for the reader.
Stage 8 Dissemination	**How?**	Results of data are of little use if they are not communicated to others. Ideally, the final step of a first-class study is to plan for its utilisation in practice.

study or as a virtual project) as you work through the accompanying web program.

The other thing to point out about the list on pages 2–4 and Table 1.1 is that all these stages are covered fully in this book by being assigned a whole chapter so that we can introduce you to the eight stages and help you to understand them as you work though the book and accompanying web program.

At this stage, it is important to stress that the research proposal is essential to the whole process of undertaking research because it encapsulates everything that we need to go through in order to undertake a research study. Consequently, the better the proposal, the better and easier is the process of undertaking a research study. It is this process

of absorbing information, knowledge and understanding in its natural and 'live' context that is the rationale for this book and web program, both of which are focused on helping you to prepare a research proposal.

The next section discusses the 'audit' and explains the differences between research and audit.

What is clinical audit?

Many healthcare students undertaking a project as part of their degree programme, or other academic studies – and indeed many qualified healthcare professionals who wish to look at a problem in their own practice – are uncertain if their work will be classified as research or as an audit, as the two activities are closely related. For example, they both:

- involve questions relating to quality of care;
- can be done prospectively (looking forward) or retrospectively (looking back);
- use:
  - sampling,
  - questionnaires,
  - the analysis of findings;
- are usually professionally led.

Nevertheless, audit and research are very different processes.

The National Institute for Health and Clinical Excellence (2002: 1) defines an audit as a:

> 'quality improvement process that seeks to improve patient care and outcomes through systematic review of care against explicit criteria and the implementation of change. Aspects of the structures, processes and outcomes of care are selected and systematically evaluated against explicit criteria. Where indicated, changes are implemented at an individual, team or service level and further monitoring is used to confirm improvement in healthcare delivery.'

An earlier UK government White Paper, *Working for Patients* (Secretary of State for Health (1989: 39), describes medical audit as:

> 'a systematic, critical analysis of the quality of medical care, including the procedures used for diagnosis and treatment, the use of resources, and the resulting outcome for the patient.'

The Healthcare Commission (2004) expands this:

> 'The overall aim of clinical audit is to improve patient outcomes by improving professional practice and the general quality of services delivered. This is achieved through a continuous process where healthcare professionals review patient care against agreed standards and make changes, where necessary, to meet those standards. The audit is then repeated to see if the changes have been made and the quality of patient care improved' (http://www.healthcarecommission.org.uk/ihealthcareproviders/serviceprovidersinformation/nationalclinicalaudit.cfn).

Whereas,

> 'Research is the attempt to derive generalisable knowledge by addressing clearly defined questions with systematic and rigorous methods' (Department of Health 2005: 3).

In other words, research is the systematic process of collecting and analysing information to increase our understanding of the topic being investigated. The researcher is therefore charged with contributing to knowledge. (If you are uncertain or concerned at this stage, then go back to the earlier discussion in this chapter about research.)

The method or process that we use in clinical audit is called the clinical audit cycle, whereas in research it is the research process, as outlined in Table 1.1 above.

The clinical audit cycle is a process of continuous improvement within the context of healthcare and treatment. The purpose of the clinical audit cycle is to identify problems and ask questions about healthcare practice in order to help healthcare practitioners reflect, review and act so that they can start to resolve these problems and questions, and so make changes that will improve patient/client care. It is called a clinical audit because it is often represented as an audit cycle or spiral, in which, following the identification of a problem or asking a question, the following processes are put into practice:

1. Setting and putting into practice a standard related to the problem/question, which it is hoped will improve the care/treatment offered by healthcare practitioners in a specialty/environment.
2. Determining and putting into practice action to meet the standard to improve the care/treatment.
3. The development of an audit tool to help to determine whether the standard that is now in practice is being met.
4. The collection of data concerned with the problem/question using the audit tool that has been developed to determine whether or not there has been any improvement in care/treatment as a result of the standard being implemented.
5. The analysis and interpretation of the data collected in stage 3 above.

6. Confirmation of the standard and the action to achieve that standard, if it has been met.

Thus the circle has been closed: initial poor practice → action/standard to improve the practice → audit of the standard/action → confirmation of the standard/action → carry on with the improved care/treatment.

However, if the action has not improved the care/treatment and so has not achieved the standard, then the clinical audit cycle becomes a clinical audit spiral, because the circle is not closed. Instead, the audit process continues in this way:

7. Determining what action to take if the standard has not been met and the care has not improved.
8. Putting into place new/amended action to improve the situation.
9. Re-auditing, analysing and interpreting the data that have been collected from the second audit.
10. Either confirming the new action because it has met the standard or repeating the whole process by changing the action, and so on.
11. Doing this until the standard has been met or looking at the standard again – it may not be achievable in that situation and so may need modifying, in which case you then repeat the modified/new clinical audit cycle/spiral until it has been met.

Basically, clinical audit is used to compare current practice with evidence of good practice, and so it is used to make changes that improve the delivery of care.

To Do

This brief look at clinical audit may seem complicated at first so, using the principle that we learn and understand better by 'doing' rather than 'seeing' or 'reading', use the information above to draw your own clinical audit cycle/spiral about some aspect of care in your practice, which should encompass all the points discussed.

After all that, we can now turn our attention to the main differences between clinical audit and research. These are outlined in Table 1.2, which summarises the differences.

However, research and audit, whilst being discrete processes (i.e. they can operate independently, without the other), also have common links and can work together to improve the care we offer to our patients/clients.

Table 1.2 Differences between research and clinical audit.

Research	Clinical audit
Creates new knowledge about what works and what does not	Answers the question, 'Are we following best practice?'
Is based on a hypothesis	Measures against standards
Is **usually** carried out on a large scale over a long period	Is **usually** carried out on a relatively small population over a short time span
May involve patients receiving completely new treatment	**Never** involves a completely new treatment
May involve experiments on patients	**Never** involves anything being done to patients beyond their normal clinical management
May involve patients being allocated to different treatment groups	**Never** involves allocation of patients to different treatment groups
Is based on a scientifically valid sample size (this may not apply to pilot studies)	Depending on circumstances, **may** be pragmatically based on a sample size that is acceptable to senior clinicians
Always requires ethics approval	Does not require ethics approval
Results are generalisable and hence publishable	Results are relevant within the local setting only (although the audit process may be of interest to a wider audience; hence audits are also published)
Findings influence the activities of clinical practice as a whole	Findings influence activities of local clinicians and teams

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We can summarise the link between audit and research like this:

- Clinical audit can be seen as the final stage of a research study, that is, the study is implemented and then audited for its effectiveness.
- Undertaking an audit can highlight areas for research, and vice versa.
- Undertaking an audit can highlight whether research evidence is lacking.
- The audit process is part of the dissemination of evidence-based practice.

So much for the links between audit and research. There are also differences, which are summed up by the United Bristol Healthcare Trust (2008) in three questions for potential researchers/auditors:

1. Are you undertaking this project because you want to improve the quality of patient care in your local setting?
2. Will your project compare current practice with established standards?
3. Will your project involve changes to treatment or services?

The Trust suggests that if your answer is 'yes' to the first two questions and 'no' to the third, then it is likely that the project is a clinical audit. If your response is different from what has been suggested, your project may be research, in which case you will need ethics approval (http://hospital.blood.co.uk/library/pdf/safe_use/The_Difference_between_Clinical_Audit_and_Research.pdf (see chapter 6 and the web program).

Is that clear? Can you see how the two processes – clinical audit and research – differ, but at the same time can be complementary?

Reflection

Think of an audit that you have carried out, or one that has been been carried out by others in your practice (ward, unit or other place of work). Now reflect on the following questions:

- What was the audit about?
- Who organised and undertook it?
- How did they do it?
- What was the result? Was the practice satisfactory or were there problems in the care/treatment that the audit highlighted?
- What happened next?

Next, we turn to another process that is linked to research and audit: service evaluation. You may already have encountered this; if not, you probably will encounter it at a future stage in your practice.

Service evaluation

A question students, as well as qualified healthcare professionals, often ask is whether service evaluation is the same as clinical audit. Harris & Hardman (2001: 70) provide a useful definition:

> 'A service evaluation is a type of applied research which investigates the effectiveness and appropriateness of a particular service, i.e. is it achieving what it set out to do?'

In other words, undertaking a service evaluation means assessing systematically all the important steps involved in any field of healthcare service. As a consequence, the method(s) used to evaluate a service should provide enough information to let us know whether or not the service should continue. It may employ elements of research and clinical audit, and it consists of one or more of the following:

- qualitative or quantitative data (see chapter 5 and the web program);
- aspects of the research process, for example, the collection of additional data (see chapter 8 and the web program);
- cost-benefit analysis;
- identification of strengths and limitations of the service.

To give you some idea of the processes of research, clinical audit and service evaluation Table 1.3 gives examples of different studies using research, clinical audit and service evaluation: Referring to Table 1.3a, try to work out which of the three processes – clinical audit, service evaluation or research – would be used for each of the three questions or problems, then check the answers in Table 1.3b. If you didn't arrive at the right solution, try to figure out where you went wrong.

Did you get all three right? If not, try to work out where you went wrong, but this time use Table 1.4, which summarises the difference between research, audit and service evaluation.

Table 1.3a Topics illustrating type of studies.

Topic	Type of study
What is the association between women with breast cancer and smoking?	
To decide whether targets set by the government are being achieved: All patients telephoning a GP surgery are offered an appointment within 48 hours	
Data collection: (a) from service users to see if the service is appropriate for their needs; and (b) from staff about various aspects of the new service.	

Table 1.3b Topics illustrating type of studies.

Topic	Type of study
What is the association between women with breast cancer and smoking?	Research study
To decide whether targets set by the government are being achieved. All patients telephoning a GP surgery are offered an appointment within 48 hours	Clinical audit
Data collection: (a) from service users to see if the service is appropriate for their needs; and (b) from staff about various aspects of the new service	Service evaluation

Table 1.4 Difference between research, audit and service evaluation.

Research	Clinical audit	Service evaluation
Creates new knowledge about what works and what does not	Answers the question, 'Are we following best practice?'	Undertaken solely to define or assess current care
Is based on a hypothesis	Measures against standards	Measures current service without reference to a standard
Is **usually** carried out on a large scale over a prolonged period	Is **usually** carried out on a relatively small population over a short time span	Size of the evaluation is variable
May involve patients receiving a completely new treatment	**Never** involves a completely new treatment	***Never*** involves a completely new treatment
May involve experiments on patients	**Never** involves anything being done to patients beyond their normal clinical management	**Usually** involves analysis of existing data but may include administration of interview or questionnaire
May involve patients being allocated to different treatment groups	**Never** involves allocation of patients to different treatment groups	**Never** involves allocation of patients to different treatment groups
Is based on a scientifically valid sample size (this may not apply to pilot studies)	Depending on circumstances, **may** be pragmatically based on a sample size	Depending on circumstances, **may** be pragmatically based on a sample size
Results are generalisable and hence publishable	Results are relevant within local setting only (although the audit process may be of interest to a wider audience and hence audits are also published)	Results are relevant within a local setting only (although the audit process may be of interest to a wider audience and hence audits are also published)
Findings influence the activities of clinical practice as a whole	Findings influence activities of local clinicians and teams	Findings influence activities of local clinicians and teams
Although any of these may raise ethical issues, under current Guidance (National Research Ethics Service 2007), the following applies for each of them.		
Always requires ethics approval	Does not require ethics approval	Does not require ethics approval

Source: Adapted with permission from NHS National Patient Safety Agency /National Research Ethics Service (2007) and Smith (1992).

Scenario

You are working in the community caring for people with drug addictions and HIV. You find that people are not coming to see you at your 'drop-in' centre.

- How would you find out why?
- Which method would you use – research, clinical audit or service evaluation?
- Why?

Possible suggestions can be found at the end of this chapter.

Issues to consider when undertaking research, audit and service evaluation

There are four very important principles to consider that are common to all three processes discussed in this chapter, and these all come under the heading of 'confidentiality'. They are:

1. Confidentiality – patient confidentiality must be ensured at all times.
2. Data Protection Act 1998 – the data collected should be adequate, relevant and not excessive. The data should be stored securely and not kept for longer than necessary.
3. Caldicott Principles – patient-identifiable data must only be collected and/or transferred for justifiable purposes.
4. Good practice in clinical audit suggests that data about a patient should be assigned a unique identification code rather than using the patient's personal details.

You will come across these in different guises throughout this book and the web program, but mainly you will explore them in chapter 6. However, the summary above introduces you to the important concepts of confidentiality and anonymity.

The next sections of this chapter explore two other methods of ensuring that you employ best practice in your work: clinical effectiveness and evidence-based practice. We start with a discussion of evidence-based practice.

Evidence-based practice

Confusion may lie in understanding what evidence-based practice (EBP) is – i.e. what it is and where it sits in relation to research, clinical audit and service evaluation.

Sackett et al.'s (1996: 71) often quoted definition of evidence-based practice can answer these questions. It states that EBP is:

> 'the conscientious, explicit and judicious use of current best evidence about the care of individual patients. The practice of evidence-based healthcare means integrating individual clinical expertise with the best available external, clinical evidence from systematic research.'

This strategy has been applied to the broader practice of healthcare, including nursing and the allied health practices. The demand for high quality care has come from a number of sources, including government, patients and their carers, the public and the nursing profession. This demand is accompanied by organisational change in healthcare provision and the need to ensure that limited resources are used to provide healthcare that is based on the best available evidence (Department of Health 1998).

So we can see that EBP is not research, but rather is gathering evidence to allow us to provide the best possible care, although it may not have been subject to a formal research study.

Evidence-based practice has five stages:

1. The development of clear questions arising from the patient's problem.
2. These questions are used to search the literature for evidence relating to the problem.
3. This evidence is appraised critically for its validity and usefulness.
4. The best available current evidence, together with clinical expertise and the patient's perspectives, are used to provide care.
5. Patient outcomes are evaluated through the process of audit, peer assessment (including self-evaluation) or the research process.

These stages are explained in chapters 3 and 4.

Clinical effectiveness

Clinical effectiveness is a general term that covers the provision of care in accordance with quality improvement methods such as clinical audit, evidence-based clinical guidelines, benchmarking, standards, practice development and research (Department of Health 2004, National Institute for Clinical Excellence 2002).

Clinical effectiveness has been defined as:

> 'The extent to which clinical interventions, when deployed in the field for a particular patient or population, do what they are intended to do – i.e. maintain and improve health and secure the greatest possible health gain from the available resources' (NHS Executive 1996).

In other words, clinical effectiveness is about doing the right thing, to the right person, at the right time, and is concerned with demonstrating improvements in quality performance, care/treatment, effectiveness and cost effectiveness – i.e. giving patients total quality experience of their care (Effectiveness Matters 2001).

The steps for improving effectiveness in clinical practice are:

- Producing and accessing the evidence that already exists (e.g. looking at research, patterns of care and population needs). In other words, it is not concerned with providing new evidence as research, for example, does.
- Reviewing and changing practice, for example, then the use of clinical audit, benchmarking and national guidelines.
- Monitoring and evaluation (e.g. measuring health benefits and health improvement, patient and carer experience) (NHS Executive 1996).

Clinical effectiveness comes in five parts. These are included to introduce you to the topic of clinical effectiveness, but as clinical effectiveness is not a part of our aim, which is to introduce you to, and help you to write, research proposals. This is only a brief look at what clinical effectiveness means.

Selecting a specific aspect of practice to explore

1. Obtaining evidence from:
   - research journals;
   - databases;
   - national-level studies based on research, e.g. clinical guidelines (National Institute for Clinical Excellence [NICE]);
   - systematic reviews;
   - national standard frameworks (NSFs); and
   - professional networks.
2. Implementing the evidence by changing practice to include the research evidence and where possible adapting national standards or guidelines to suit local circumstances.
3. Ensuring that you are providing best practice on a day-to-day basis, as well as pointing you in the direction of making improvements in your practice.
4. Evaluating the impact of the changed practice and readjusting practice as necessary, usually through clinical audit and patient feedback.

A number of studies have already been undertaken in the practice settings to assess clinical effectiveness. Here are just two of them to give you a flavour of what is possible.

Harvey (2004) used clinical performance information to underpin quality improvement strategy for her clinical area. Patients and staff

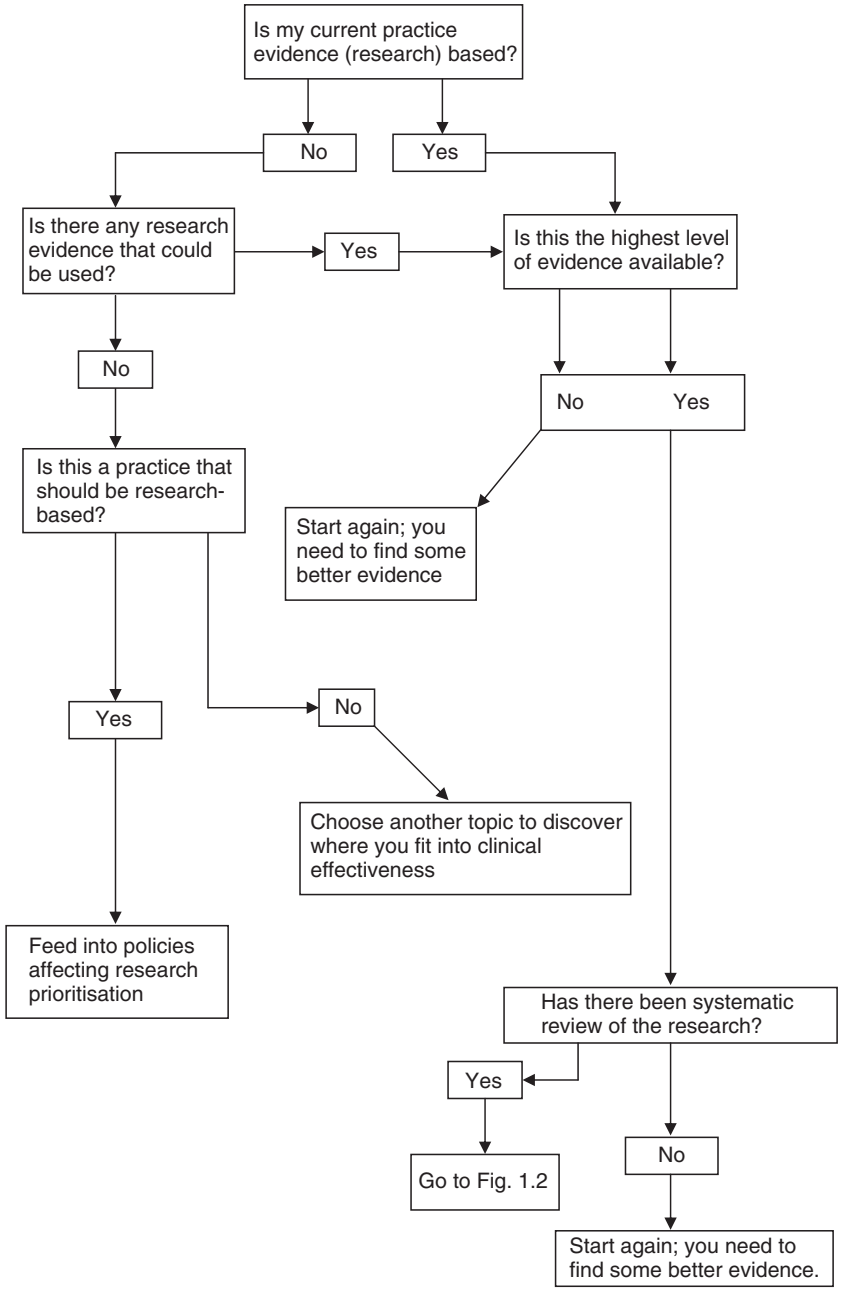

Figure 1.1 Clinical effectiveness – checking your practice is evidence-based (adapted from McClarey & Duff (1997))

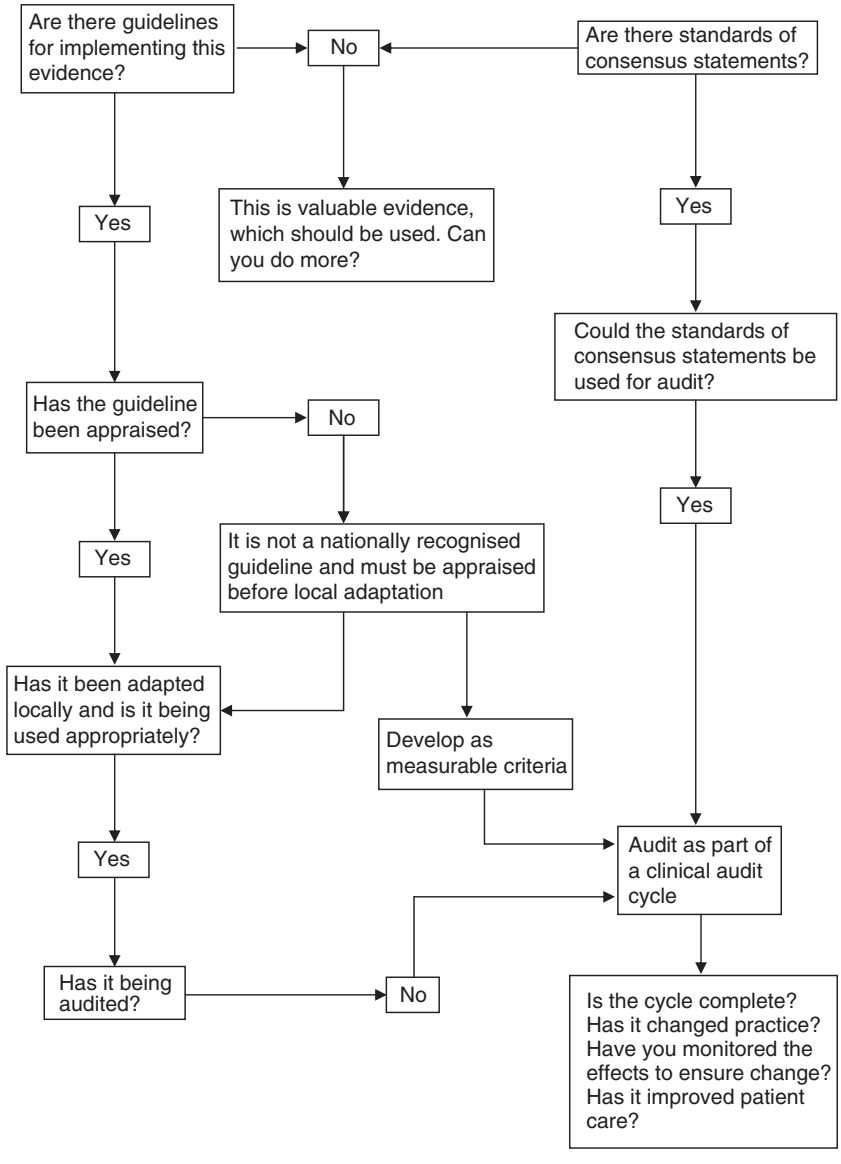

Figure 1.2 Implementing and auditing change (adapted from McClarey & Duff (1997))

were involved in the development of a clinical effectiveness framework and Healthcare and Trust-specific indicators to monitor the quality and effectiveness of healthcare at a system-wide level.

Woods (2006) used a mixed-methods approach to explore the initial management and treatment of neonates by experienced consultant neonatologists and advanced neonatal nurse practitioners. The analysis

showed no statistical difference in the standard and quality of care provided by the two categories of healthcare staff in the majority of areas evaluated. However, Woods found that trends in the data suggest that the nurses did not perform as well as the medical consultants in terms of the overall completeness or comprehensiveness of the standard of care provided in a number of areas.

Summary

This chapter has offered discussion and explanations of the following key concepts:

- research;
- clinical audit;
- service evaluation;
- evidence-based practice;
- clinical effectiveness.

In addition, it has demonstrated the differences between research, clinical audit and service evaluation and provided examples of how to distinguish whether a proposal can be classified as research, clinical audit or service evaluation. The activities below are intended to embed the information in this chapter into the reality of the workplace.

Activities

Activity 1

- Explain what you understand by research, clinical audit, service evaluation and evidence-based practice.
- From your own experience, explain the barriers to the use of evidence-based practice, using the following headings:
  - the individual;
  - the organisation;
  - the environment.

Activity 2

Using the checklist provided in Figures 1.1 and 1.2, ascertain whether your practice is evidence-based/clinically effective. Compile a list of some of the causes or barriers to evidence-based/clinically effective practice.

- Why is clinical effectiveness important?
- What impact does it have on your clinical activities?
- How many times have you changed your practice in the last two years?

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Scenario – Possible suggestions/answers

This is a tricky one, and the simple answer is that you could use any of the three processes depending on what you were looking at. For example:

Research: You may decide that you are going to ask people with drug dependency and HIV in the community – in other words, your target group (as well as other community workers) what they think the reason is, and also what would encourage them to attend. This would probably be a qualitative research project, using a phenomenological approach (see chapters 2 and 5 and the web program).

Clinical audit: If you already have a standard, you may wish to develop an audit tool and measure your actual practice against the standard. In this way you may see what you are doing inappropriately and change your practice accordingly. If, on the other hand, there is no standard, then you will need to look at setting a standard for your practice. This could involve contacting others performing a similar role elsewhere in the country and seeing if they have standards you can use; if not, working with a group and setting your own standards which you can then put into practice, and later audit.

Service evaluation: You may decide to do a full service evaluation to see if the service you are providing is of any real merit. Perhaps there is no need of the service in your area, or it is in the wrong place, or the opening hours are not suitable for the potential clientele. You would also look at the cost – is it worthwhile, given the attendance? Could the money be utilised in a different service, whilst still helping the potential clientele? Can you identify the strengths and weaknesses (or limitations) of what you are offering?

So you can see that the method you opt to use – research, clinical audit or service evaluation – depends on what you want to examine in the service that you wish to provide/are providing. This is a useful lesson for you to absorb for when you come to look at the methodology of research and have to decide which type of research you are going to undertake.