Succeeding in Literature Reviews and Research Project Plans for Nursing Students

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Chapter 1
Getting started on your final-year project

Chapter aims
After reading this chapter, you should have developed an understanding of these areas:

• nursing and research;
• an overview of literature reviews, project plans and dissertations;
• key terms in research;
• an introduction to quantitative and qualitative research paradigms and mixed methods approaches;
• research designs from particular traditions (including action research, evaluation research, participatory and emancipatory research, case studies);
• research attitude.

Introduction
You are about to embark upon a process that is likely to change the way you think. You will gain tools for challenging your own thinking and the thinking of others and get a glimpse ‘behind the scenes’ at how knowledge is created. As a result, you are likely to experience more freedom than with any other part of the course for intensive study of a topic that interests you.

Historically, nursing has seen itself as a ‘practical’ subject and has drawn upon other disciplines to provide a research base to inform its interventions. Medicine, sociology, psychology and biology have been the disciplines that have been the most influential; all of these have relatively well-established research bases. As nursing has evolved as a discipline and is now in the process of becoming an all-graduate profession, there has been a shift towards developing nursing’s own research base.

The use of evidence to inform professional nursing practice (as opposed to looking after people based on custom-and-practice or tradition) is now widely established as essential (Ellis, 2016). Thus developing an understanding of research and related concepts such as literature searching and ethics is an important part of the pre-registration nursing degree, usually occurring in the later course years. So you will have become accustomed to traditional academic writing and competence-based assessments such as placement portfolios; however, the prospect of learning a new vocabulary and set of skills can be a little daunting. For example, although all students must demonstrate numerical proficiency before qualifying, this may not translate into confidence in
critically appraising statistical information. Even the language of research design, methodology and data analysis can seem technical and remote from students’ experiences.

Activity 1.1

Reflection

Take a sheet of blank paper. Think of the term ‘research’ and jot down any ideas that occur to you.

Take a separate sheet of paper and jot down the emotions provoked by the idea of engaging in research.

As this is a personal reflective activity, there is no outline answer at the end of the chapter.

Some students find that a lot of negative emotions are forthcoming. Reinforcing negative emotions by going over them repeatedly will not help you to overcome them. It is very important that these are supplanted by some positives, so try the following: visualise yourself successfully completing your dissertation or module assignment, handing it in and getting a really good mark. How good would that feel? Next, think about how much you want to be a nurse – hopefully quite a lot at this stage of your programme. This is one module or assignment that is between you and your goal of becoming a nurse but it is achievable; thousands of students do something similar every year. Visualise yourself at your graduation, in your best clothes, with your friends and family clapping as you receive your certificate. Return to this imagery if things get tough when you are writing. You now have a positive goal in sight rather than negative emotions, and successfully completing your dissertation is just part of that.

For many nurses, ‘research’ is something that is either intimidating or boring – perhaps both. It is done by other people, such as psychologists or doctors, using highly complex and technical procedures. We hope to challenge these myths throughout this book and demonstrate to you that research is something that can be interesting and straightforward. For nurses, the point of research is not as a purely academic exercise but rather about how it contributes to improvements in everyday nursing practice and patient care. This is reflected in the Nursing and Midwifery Council (NMC) Standards for Pre-registration Nursing Education (NMC, 2010a) as well as their Essential Skills Clusters (NMC, 2010b) and the Quality Assurance Agency (QAA, 2001) subject benchmarks for nursing, listed in the Introduction. While few nursing students will undertake a piece of research as a final-year project, many will be asked to undertake a literature review, often in conjunction with a research proposal. This book therefore focuses on these aspects: it is about understanding and doing literature reviews and applying research concepts to proposal writing, rather than about research per se.

The purpose of such extended pieces of work is that they provide an opportunity to explore and develop key, transferable academic skills such as project management, analysis and synthesis, and critiquing and developing a deeper understanding of research and evidence to underpin practice.
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By reviewing the literature in an area, you will also gain in-depth knowledge of a topic that you are interested in from the practice setting. As an overview, undertaking a literature review involves an exhaustive search and retrieval exercise using a systematic process of:

- searching electronic databases using key words;
- specifying criteria for the retrieval of articles from the search;
- using critical appraisal to examine the articles’ strengths and weaknesses, usually against some agreed criteria;
- synthesis of the literature to uncover some insights (possibly new ones) as evidenced by this body of knowledge.

An important development in nursing and healthcare in this field is that of systematic reviews and meta-analyses. This usually applies to quantitative work, although there are qualitative, narrative approaches to it. We explore these concepts more fully in Chapter 8.

Writing a project proposal will be useful and you will gain from the experience because, as well as requiring you to understand research concepts more fully and plan a coherent study, it may inform future studies such as a Master’s degree. You will also be addressing the professional standards listed in the Introduction and these in turn will influence your patient care when you are qualified.

Research project proposals need to include a summary of the literature on the topic you have chosen. This summary may or may not need to be sourced in a systematic review, but it will need to contain a background and rationale for the proposal and some idea about how the existing literature informs your study. You will need to have a research question, a sentence with a question mark at the end, as well as aims and objectives. Ensure that these are achievable and not too ambitious! You will probably be asked to write about your underlying approach, whether qualitative or quantitative. You would then develop an outline of how you intend to conduct the study, indicating what methods of data collection and analysis you will use (this is why we spend time below outlining some of the different ways in which this can be understood), as well as a timetable, resources and plan for dissemination of the findings.

‘Dissertation’ is a term that is applied to some form of extended study, usually undertaken as part of an academic award. For our purposes, it can denote a third-year piece of work, with an element of choice involved. Dissertations do not usually take an essay format, in which students are asked to answer a question; rather, they require students to choose an area of practice of their own interest and explore that in some way. A dissertation would normally have some element of research in it, and the term is most frequently associated with a research project where data collection and analysis are carried out, although this is not common in nursing courses. In nursing, a dissertation could be a project where literature is reviewed and conclusions and recommendations drawn, and may include a research proposal. You may not even have a ‘dissertation module’; if you do have one, be careful to write following the structure requirements given at your institution. As it is usually worth more than the normal number of credits it is perhaps 5,000 words or longer, and will involve an element of critical appraisal, analysis and synthesis.
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Transferable skills

Completing your project will provide you with the following range of transferable skills:

- project management skills, from first conception through to completion. These include time management and planning skills as well as evaluation and implementation skills;
- the ability to find and begin to critically evaluate research studies, rather than accepting them at face value. This can lead to increased confidence to question your own practice and the practice of others;
- the ability to think and study independently and take responsibility for your own learning as an autonomous practitioner. This can lead to increased curiosity and openness to new ideas.

These are all essential skills that will increase your employability and positively improve your practice.

Professional development and reflective practice

Great emphasis is placed on developing skills of reflection about, in and on practice. This has developed over many years in nursing. It is important also that you reflect on practice. Developing a questioning approach that looks in a critical way at how you approach the research task and seeks to heighten your skills will help you to refine your practice and deepen your understanding of research concepts. Reflection is central to good nursing practice, but only if action results from that reflection.

Reflecting about, in and on your practice is not only important during your nurse preparation programme; it is considered key to continuing professional development. As we move to a profession that acknowledges lifelong learning as a way of keeping up to date, ensuring that research informs practice and honing skills and values for practice, it is important to begin the process at the outset of your development. This is reinforced by the NMC (2010a, b) and QAA (2001) standards discussed in the Introduction.

The role of research in your projects

We will now look over the key terms and approaches in research, some of which you may have come across before, to help you recall these prior to starting on your project. Although you may not be working with all these methods within your course, you will need to be familiar with them, and their application in nursing, in order to complete a research proposal or plan, and to assess literature as part of your literature review.

Future chapters will look at each of these in more detail to enable you to select the most appropriate methods for your research proposal. So consider the notes below as a ‘refresher’, which we will then go on to cover in more detail and relate more closely to study design. We have begun by asking you to reflect upon your initial thoughts about engaging in research. Below, you will
be introduced to key terms. The distinction between quantitative and qualitative approaches will be discussed. You will be asked to consider a range of research designs from particular traditions to illustrate the wide diversity of approaches.

Key terms in research

As with any new area of study, you need to understand new terminology that can seem technical and confusing. Here are a few key terms that you will come across when studying for, and considering the design of, your research proposal or project. There is considerable debate about the exact use of specific terms, but the definitions below are generally agreed upon and are the meanings that are used in this book.

Data refers to the information that you are going to collect in order to answer your research question; for example, the words used by your interview participants or numerical information from your questionnaires. Strictly speaking, data is a plural rather than a singular noun (the singular is ‘datum’) and this convention will be kept throughout this book.

Epistemology is the study of knowledge and addresses the question of what counts as legitimate knowledge. Research projects contain assumptions about what is legitimate knowledge, and this is known as its epistemological position or stance.

Methodology refers to the totality of how you are going to undertake your research. It includes the research approach that you will use, including your epistemological position and the specific research methods you will choose, such as interviews or questionnaires.

Research approach or paradigm refers to the traditional division between quantitative and qualitative traditions in research, which will be discussed further in this chapter.

Research method refers to the practical way in which you are going to collect your data. Commonly used methods in healthcare research are interviews, questionnaires, focus groups and rating scales.

Sampling refers to the process of selecting the participants (or other data sources, e.g. documents) that will be involved in your study. Your sample (the selection of people or other data sources) is chosen from the total possible data sources, known as the population.

Research participants replaces the outmoded term ‘research subjects’, because the latter term suggests that people involved in research should have a passive role in a process to which they are ‘subjected’. The term ‘participants’ suggests a more active and equal role, in which participation is informed and freely chosen.

Quantitative research tends to emphasise quantification and measurement, which can be analysed using statistical tests to establish a relationship between variables (e.g. poor mental health and social exclusion). Where there are testable hypotheses – which are predictions such as that higher levels of mental ill health are likely to be linked to higher levels of social exclusion – statistical tests can be used to establish relationships in these data, either through judging the strength of a difference or a correlation.
Qualitative research tends to emphasise words as data, such as the words of participants in interviews or written data from documents. Rather than testing hypotheses, qualitative research seeks to explain the meaning of social phenomena through exploring the ways in which individuals understand their social worlds. More recently, data in visual forms such as photographs or films have been an increasingly popular subject of study.

Quantitative versus qualitative research

In its simplest formulation, quantitative research asks ‘what is going on here?’ or ‘which option is better than the other?’ Qualitative research, on the other hand, asks ‘what is the meaning of what is happening?’ For example, a quantitative study may measure the rates for mental ill health and social exclusion for a sample of mental health service users and find that there is a link (i.e. people with higher rates of mental ill health are likely to experience higher rates of social exclusion). A qualitative study would explore the meaning of what is happening, for example whether people with mental health problems are experiencing stigma and prejudice, whether participants are isolating themselves as a means of coping with distressing symptoms or some other explanation. Both approaches can provide useful insights into a particular research topic and there is a growing recognition of the strengths of mixed methodologies (Plano Clarke and Cresswell, 2008). Actually, neither approach is ‘better’ than the other; it is simply deciding which is more appropriate for the research question, and the question should come before the choice of methodology because the type of question asked determines how it will be investigated. When planning a research project or developing a proposal for a module or in a clinical setting, deciding on your research question leads you to choose a research approach which is best suited to answering it. Qualitative and quantitative research approaches are considered in more detail later in the book.

Quantitative research

Quantitative research tends to follow a traditional scientific model, which emphasises ‘objectivity’ by seeking to remove the values and attitudes of the researcher from the study. There is an emphasis on studying causal relationships and formulating fixed rules for the process of inquiry (Humphries, 2008). Sampling issues are particularly important because of the emphasis on being able to create statistical generalisations that are applicable to the wider population.

Quantitative research and positivism

Quantitative research has been influenced by positivism as an approach to knowledge. Every approach to research has underlying assumptions about the nature of knowledge and the social world, which is referred to as its epistemological position (see above, page 13). Positivism as an epistemological position traces its intellectual heritage back to Auguste Comte and argues that the traditional scientific method applied in the natural sciences is appropriate to the study of society (Giddens, 1993). From a positivist stance, the researcher is seen as an objective observer whose role is to infer laws that explain relationships between observed phenomena (Giddens, 2006).
Gray (2004) identifies three major claims of positivism:

1. Reality is viewed as consisting only of what can be experienced through the senses. Consequently, phenomena that cannot directly be sensed (e.g. people’s intentions, wishes and fears) are not suitable as a subject for scientific inquiry.
2. Inquiry should be based upon scientific observations rather than philosophical speculation, and therefore on empirical inquiry.
3. The natural and human sciences are similar as they share common logical and methodological principles. This includes the belief that facts can be distinguished from values.

Although positivism dominated the social sciences for much of the twentieth century, it has fallen from favour since the 1980s as critics have challenged its core assumptions and its appropriateness for researching the complexities of our social world (Payne and Payne, 2004, page 171).

The challenges to positivism have led to a more sophisticated version of the traditional scientific approach known as realism, which is becoming increasingly influential. This is a broad range of approaches variously named as ‘scientific realism’, ‘critical realism’, ‘subtle realism’ and ‘transcendental realism’, each of which has a slightly different emphasis (Robson, 2011). An increasingly popular approach is critical realism (Bhaskar, 1978, 1979, 1990), which believes that there is an external reality but sees the concepts that we use to understand it as a provisional way of knowing rather than a direct reflection of reality. This approach also allows for theoretical content that is not amenable to direct observation, which would not be acceptable in positivism (Bryman, 2012).

You are likely to come across the randomised controlled trial (RCT) in your literature reviews, as this is a particularly influential research approach in healthcare and nursing, involving what is known as an experimental design. We will discuss experimental designs and RCTs briefly below (pages 21–22) and then further in Chapter 6, but in essence they are ways of assessing the effectiveness of different ‘treatments’ to find out which one works best relative to others. They are increasingly popular and reported in nursing journals for all branches and specialities in nursing, and are frequently described as the ‘gold standard’ in healthcare research.

**Qualitative research**

Qualitative research tends to use data in the form of words rather than numerical information. It seeks to explain social phenomena through understanding the ways in which individuals make sense of their social worlds and sees knowledge as historically and culturally situated (Crotty, 1998, page 67). In qualitative research, there are no clearly defined rules about sample size, but generally smaller sample sizes are used and studied in more depth and detail (Miles and Huberman, 1994). The primary focus is the importance of understanding individuals’ own accounts of their perceptions, views and feelings and the meanings they attach to social phenomena.

**Qualitative research and interpretivism**

Qualitative research has been influenced by interpretivism as an epistemological position. Interpretivism is a broad term used to describe a range of approaches that challenge the traditional
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scientific approach of positivism. Interpretivism argues that the research methods of the natural sciences (from where positivism originated) are inappropriate to study social phenomena because they do not take into account the viewpoints of the social actors involved. For example, identifying the reasons for young people’s unhealthy behaviour such as drug taking or unprotected sex requires the nurse researcher to understand the perspectives of the key social actors. The intellectual origins of interpretivism can be traced back to the nineteenth and early twentieth centuries as thinkers began to develop ways of researching, understanding and interpreting people’s experiences of life (Bryman, 2012).

Quantitative research is generally more valued by governmental bodies as it focuses more on ‘what works’ and is more easily generalisable. Medical research uses this approach extensively whereas nursing research has tended to favour qualitative approaches. More recently, there has been a trend towards combining these methodologies, so traditional distinctions have become blurred.

Qualitative research and reflexivity

Whereas quantitative research seeks to remove the researcher from the study through addressing issues of bias, qualitative researchers argue that this is neither possible nor necessarily desirable. We bring our background and identity to our research, but from a traditional perspective this is viewed as a problem (a source of bias) rather than a valuable component of the research (Maxwell, 1996). In qualitative research, this is developed through the concept of reflexivity, which acknowledges that we bring our own thoughts, values and beliefs as well as our ethnicity, race, class, gender, sexual orientation, occupation, family background and schooling to our research (Kirby and McKenna, 1989).

Reflexivity has been defined as the practice of researchers being self-aware of their own beliefs, values and attitudes, and their personal effects on the setting they have studied, and self-critical about their research methods and how they have been applied (Payne and Payne, 2004, page 191). Reflexivity can ensure high standards because it involves the researcher constantly reviewing the process of investigation. Huberman and Miles (1998) argue for the researcher documenting the research process. This has been referred to as an ‘audit trail’, which explains why decisions were made (Lincoln and Guba, 1985) and should be regarded as a resource rather than a defensive action (Payne and Payne, 2004).

Feminist research has a long tradition of promoting qualitative research as an appropriate strategy for studying social phenomena in context. Feminist research is not so much a specific research design or method, but an approach to research that is informed by a set of values. These values recognise the power differentials that exist within wider society and within academic discourses, which have favoured patriarchal models of research that emphasise objectivity and distance between the researcher and the researched. It emphasises reflexivity as part of the rejection of these models, and as a resource for a radical paradigm shift (Payne and Payne, 2004). Feminist research tends to be antipositivist, although it includes quantitative as well as qualitative research methods. It places gender at the centre of social inquiry, investigating and representing the diversity of women’s perspectives (Sarantakos, 2005).
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Generic qualitative research

When undertaking research studies using the designs listed below under the heading ‘Research designs from particular traditions’, it is necessary to adhere to these designs quite scrupulously, or rigour can suffer. More recently, a trend among some qualitative researchers is for what has become known as ‘generic qualitative research’ (Caelli et al., 2003). This is an approach that uses methods of data collection from the qualitative tradition, without some of the other methodological assumptions that come with the traditional qualitative schools of thought.

So, in summary, qualitative research is an approach which seeks to understand people’s experiences in particular situations. This is useful in nursing because it can give us insight into the issues involved in, for example, living with illnesses, or being a patient or client and using services, or being marginalised or disadvantaged in some way. With an enhanced understanding of these areas, nurses can begin to think through how they can alter their care and tailor their services more effectively to meet the needs of their patients and clients. Such studies are usually quite small-scale and based in a local context, so we can’t automatically assume that the findings relate exactly to our own care settings, but qualitative work is often used where little is known about particular issues and it is a start (at least) to know things from small, local studies.

For those undertaking modules and planning projects, a research question seeking to understand or interpret people’s experiences will lead to the use of a qualitative approach. This may be useful when little is known in an area of your own interest in practice, or as an attempt to evaluate issues in your own care setting, or relating to your own service delivery. We look in more detail at qualitative designs in Section 3.

Research designs from particular traditions

When planning your project or undertaking a literature review, you will need to be able to identify and understand a range of research designs from different traditions. What follows is a brief introduction to these which will help you gain an overview before starting your project. This is not exhaustive, neither is it intended as a menu from which you must choose. The aim is to illustrate the rich diversity in approaches to research design and the values that underpin them. The approaches are discussed in alphabetical order to challenge the idea that some designs are ‘better’ than others. To reiterate: the ‘best’ research design is the one that allows you to answer your research question!

We have suggested further reading for each of the designs covered below at the end of the chapter.

Action research and participatory action research

Action research challenges the traditional conception of the researcher as separate from the real world seeking theoretical knowledge that makes little difference in practice. It is associated with smaller-scale research projects that seek to address real-world problems, particularly among practitioners who want to improve practice, with a more equal and collaborative relationship between
researchers and participants occurring as a feature of the study design. Rather than merely studying the social world, action research seeks to change it in practical ways. Another feature of action research is a view of the research process as being cyclical, in the sense that findings are fed back directly into practice in an ongoing process (Denscombe, 2014).

Action research traces its intellectual history to the work of Kurt Lewin, a social psychologist working in poor communities in post–Second World War America (Humphries, 2008). Action research is not a specific research method. It is more an approach to research that stresses the importance of links with real-world problems and a belief that research should serve practical ends. It is compatible with a wide range of research methods, ranging from experimental to phenomenological designs.

Participatory action research (PAR) is a form of action research that is committed to the involvement of those who are most affected (Alston and Bowles, 2012). It challenges the traditional power imbalance between the researcher as ‘expert’ and research participant as ‘passive subject’ and is highly compatible with antidiscriminatory and antioppressive practice, as the focus is to change participants’ situations for the better under their direction.

There are also a number of similar approaches, such as ‘appreciative inquiry’ and ‘cooperative inquiry’. These share a commitment to promoting the empowerment of participants, but each has a different emphasis (Heron and Reason, 2006; Ludema et al., 2006).

Koch et al. (2008) illustrate how a PAR study can be used to give voice to those who are usually marginalised as well as to illuminate practice issues and day-to-day changes. They studied how women with multiple sclerosis (MS) and urinary incontinence perceive the daily challenges they encounter. Four female MS sufferers, the researcher and two continence nurse advisers (CNAs) met on five occasions and the group interactions were recorded and transcribed. As well as finding four themes in the interactions (maintaining control; seeking understanding; avoiding shame; and good and bad days), the women and the CNAs were able to discuss living with MS and incontinence from their differing perspectives. The CNAs learnt much about the women’s experience and have changed their daily practice as a result.

These are fascinating and increasingly influential forms of research, but if you are choosing this for a method in your project plan, be aware that their innovative nature can make them problematic if they are not fully understood by students and supervisors, or if timescales are limited by the need to adhere to strict deadlines. Genuine participatory research requires considerable time to develop because the project’s development is steered in the directions in which participants want to take it. This makes it difficult to predict at the outset where it will end up and how long it will take to achieve change; this uncertainty can involve ethical issues too (Williamson and Prosser, 2002).

Case studies

A case study is a detailed inquiry into a single example of a phenomenon, whether it is an organisation, individual, event, process, location or period of time (David, 2006). Rather than a research method, it is more a focus of study in which a variety of research methods can be used. These can range from experimental methods within a quantitative approach through to ethnography using
observation and interviews within a qualitative approach. In practice, however, most case studies tend to adopt a qualitative approach (Payne and Payne, 2004) and are relatively descriptive.

Yin (2014) argues that case study research has traditionally been regarded as a ‘weak sibling’ compared to other research designs, such as experimental studies. This has changed in recent years as qualitative research has become more accepted within health and social sciences. A traditional criticism of case studies is whether findings can be generalised. For example, the statistical generalisations produced by large-scale statistical analysis would not be possible from a case study; this would be inappropriate because the case is studied in its own right rather than as an example of a particular class (Payne and Payne, 2004).

Yin (2014) identifies three types of case study. The critical case is chosen because it has features that challenge an existing theory or hypothesis. The unique case is chosen because its distinctiveness is its merit, although it may provide ways of understanding more usual cases. The revelatory case is chosen because it can provide new insights and ideas.

Courtenay et al. (2009) conducted a case study to explore issues in consultations between nurse prescribers and dermatology patients, as they wanted to illustrate the unique contribution of nurses to patient care. Ten practice settings were evaluated using a mixed methods approach, including questionnaires, interviews and videoed observations of consultations. The researchers found that nurses believed their holistic approach to assessment and prescribing improved prescribing decisions, while patients valued nurses’ skills in listening and in explaining treatments.

If you were choosing a case study approach you would need to be clear that you were investigating some aspect of local practice or patients’ experiences, and that your research and findings would be highly context-specific and not necessarily relevant elsewhere. This doesn’t mean that you shouldn’t conduct this type of research: it may be very useful and desirable that local service delivery or patients’ experiences are evaluated and the findings shared more widely. These comments also apply to the discussion of evaluation research, below.

Clinical data mining

Clinical data mining (CDM) is a practice-based research strategy for systemically collecting and analysing available agency data such as medical, nursing, allied health and other hospital records (Epstein, 2009). CDM offers a promising and practical research approach for academics, but is particularly attractive to research-minded practitioners and postgraduate degree students. For example, it can be used by practitioners to evaluate their own interventions and reflect upon their own practice. It is generally used retrospectively to analyse existing data but could be combined with original data collection. Likewise, it can provide data for Master’s and PhD degree studies on topics difficult to study via original data collection.

Epstein (2009) describes three basic types of CDM studies. The first type directly converts existing quantitative data to a quantitative database for statistical analysis. The second type converts data that were originally in narrative form (e.g. nursing notes) from qualitative form to a quantitative database for statistical analysis. The third type is purely qualitative data, where narrative data receive a qualitative analysis.
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**Case study**

Patients with life-threatening liver disease go through a two-stage process at the Mount Sinai Medical Center in New York City to determine their eligibility for transplants. After they are determined as medically appropriate for transplant, patients then have a second assessment to determine their suitability for a transplant on psychosocial grounds. Since the shortage of donor organs means that only about half of requests can be accepted, the psychosocial assessment is crucial for patients. Staff team members and a research consultant extracted quantitative data about psychosocial risk factors and outcomes from around 500 former patients in order to complete the largest retrospective study of patient psychosocial risk factors and liver transplant mortality ever completed in the transplant literature (Epstein et al., 1997).

CDM has a number of strengths. First, it is practitioner-friendly and it explicitly promotes practitioners as researchers. Second, it is less resource-intensive than most other forms of research. Since the data are already available, the costly and time-consuming process of data collection is avoided, although data will usually need work to convert them into a suitable format. Third, it makes use of valuable data that already exist but which are rarely used for research purposes. Since the amount of data that is collected for research purposes is only a tiny fraction of the amount of data routinely collected for clinical purposes, the potential for knowledge creation is considerable. Finally, CDM is unobtrusive and more ethically sound than most other data-gathering approaches. It does not involve the patient risks or burdens involved in data collection (e.g. interviewing patients, relatives or staff about sensitive topics), nor does it involve the ethical risks involved in experimental or quasi-experimental studies (see below for more detailed discussion). The main limitation of CDM is that any research method that relies on clinical records is only as good as the available data sources themselves. Consequently, missing data, reliability questions and absent variables must be anticipated. However, once recognised, these issues can be minimised with proper safeguards.

**Evaluation research**

_Evaluation research_ has become popular within healthcare as part of the drive for increased accountability of public services and the evidence-based practice agenda. Indeed, it is usually valued highly by practitioners, particularly when deciding between different interventions, allocating scarce resources or demonstrating that in-service innovations are effective.

To evaluate something is to assess its merits or worth. By definition, it cannot be value-neutral because there must be aims and standards against which something is judged (Humphries, 2008, page 170). In real life, evaluation is also rarely value-neutral in the sense that it can be used for organisational purposes. For example, evaluations can be used to justify closing a service or to promote the wider organisation.

Evaluation research requires you to develop specific criteria, which can be an interesting and fraught process as different stakeholders can have different perspectives. Senior management may be interested in cost-effectiveness, adherence to national standards and National Institute for Health and Care Excellence (NICE) guidelines, while service users may be more interested
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in how responsive the service is to their needs. There are obvious similarities with action research. However, one common difference is the role of the researcher. While the researcher in action research is often in a practitioner role, this is less acceptable within evaluation research because it would be viewed as compromising objectivity.

Another related criticism of evaluation is that it is atheoretical in its approach; that is, it does not use wider theory drawn from the social sciences to inform its design. In many contexts, this is not problematic and studies do not need to demonstrate engagement with the wider academic literature in order to be effective and useful, providing that methods of data collection and analysis are rigorous. A final note of caution is that evaluation research can be politically sensitive, which can pose challenges for access and for researchers’ relationships with service users and staff.

Service evaluations may utilise existing data and are similar in that respect to audit, or they may collect new data for a specific purpose. For example, Williamson et al. (2007) discuss a patient satisfaction survey of a nurse-led clinic for cancer care follow-up. Data were collected using a questionnaire, which evaluated the initial months of the clinic’s existence. It was a new service and the nurse specialist and medical consultant wanted to understand the issues for patients and gain some perspective concerning what worked well, what might need to be altered, and what patients thought of the new service compared to the old medical-led arrangements. Overall, patients were satisfied with many aspects of the new service. While this service evaluation is highly context-specific, it illustrates how service redesign can take place as a result of national policy and clinical guidance, which had driven the changes. So, while Williamson et al.’s (2007) study evaluated satisfaction with the new service, they also generated some more widely applicable knowledge of relevance to similar services elsewhere or for the service user group as a whole.

Service evaluation is an important and growing area of healthcare research. Choosing a service evaluation as a project or for a proposal will allow you to gain skills in this area which may come in useful at a later stage in your career when you have more responsibility for service delivery. It may suit you that you will not need to adopt a theoretical position (such as grounded theory or phenomenology) if the aim of your research is to produce useable findings for understanding and improving patient care.

Experimental and quasi-experimental designs

These designs are similar to a traditional scientific approach and are most often used to evaluate interventions and test theories (known as hypotheses). It is sometimes stated that an experimental design is the most rigorous form of research, which is somewhat misleading as all forms of research can possess rigour. It is more accurate to say that this is the approach that places most emphasis on removing possible sources of bias, which is achieved through introducing a degree of randomisation at different stages of the process, and by ‘blinding’ participants and staff to which intervention is being offered (known as ‘double blinding’) where possible.

The classic experimental design is the randomised controlled trial (RCT), mentioned earlier (page 15), in which participants are randomly assigned to one of two groups: an experimental
and a control group. The experimental group receives the intervention, whereas the control group does not, and the effects are then measured in each group. Having a control group receiving no intervention raises ethical issues, because it requires one group not to receive a potentially beneficial intervention. This is less ethically problematic when there is little evidence as yet that the intervention is effective, but becomes more so as there is evidence that participants would be likely to benefit, and so a new treatment could be compared to an existing one. So, for example, if researchers wanted to answer the question, ‘What is the best treatment for high blood pressure?’ they would investigate this by giving one medication to one group of patients and comparing the outcomes with another drug given to another group of similar patients. Statistical tests would be used to establish the importance of these outcomes and whether or not they could be generalised to a wider population from the sample in which they were observed.

RCTs form one end of a spectrum of experimental and quasi-experimental approaches that can be used. We discuss the distinctions between experimental and quasi-experimental designs more fully in Section 3: briefly, a full experimental design would contain more rigorous features than a quasi-experimental design such as double blinding (where neither researcher nor patients would know which new treatment was given to avoid any subliminal biases being introduced), or a control group who were receiving no treatment or an existing one for the purposes of comparison. A common quasi-experimental design is a pre- and post-test design, in which one group of participants experiences an intervention and key variables are measured before and after the intervention to establish whether there has been a change.

For example, Chiang and Sun (2009) investigated whether introducing a walking programme for Chinese Americans would reduce their hypertension (high blood pressure) rates, with one group experiencing the programme, and another experiencing a culturally modified programme (aimed at being attractive to them as older Chinese Americans). There were no significant effects upon participant blood pressure or walking endurance as a result of either programme, and the study indicated that the walking protocol is appropriate to use without additional cultural modification.

This study illustrates how a quasi-experimental design might be useful in investigating variables which cannot rigorously be controlled or blinded: it was not possible to blind researchers and participants to allocated groups as patients were receiving different input from researchers and behaving differently as a result. This was obvious to the researchers, meaning that the full experimental control associated with a true experimental design is not present in this study. If you are thinking about constructing an experimental design, it is worth noting that the full features (which we discuss in Section 3) do not need to be present, and although quasi-experimental designs are not as robust as fully experimental ones, they can be used successfully.

**Narrative approaches**

There has been increasing interest in narrative approaches across the social sciences (Squire et al., 2008; Gubrium and Holstein, 2009). Narrative approaches are interested in the *storied nature of human conduct* (Sarbin, 1986), in which we respond to experiences by constructing stories and listening to the stories of others.
Narratives have been provisionally defined as discourses with a clear sequential order that connects events in a meaningful way for a definite audience and thus offer insights about the world (Hinchman and Hinchman, 1997, page xvi). However, such definitions are in dispute and the process of analysis does not offer the tightly prescribed procedures prevalent in approaches such as grounded theory (Riessman, 1993, 2007; Andrews et al., 2013).

Elliott (2005, page 6) identifies the following common themes in narrative research:

- an interest in people’s lived experiences and an appreciation of the temporal nature of that experience;
- a desire to empower research participants and allow them to contribute to determining the most salient themes in the area of research;
- an interest in process and change over time;
- an interest in the self and representations of the self;
- an awareness that the researcher him- or herself is also a narrator.

Narrative research is often interested in issues of identity as stories play a central role in the formation of identity (Crossley, 2007, page 135). Indeed, Mair asserts that:

> Stories are the womb of personhood. Stories make and break us. Stories sustain us in times of trouble and encourage us towards ends that we would not otherwise envision.
> 
> (Mair, 1989, page 2)

The history of narrative approaches to research can be traced back to two different academic traditions (Rustin, 2000; Andrews et al., 2004; Squire et al., 2008). The first is the post–Second World War rise of humanistic approaches within psychology and sociology as a reaction against positivism. The second is the influence within the humanities of a range of developments from Russian structuralist, French poststructuralist, postmodern, psychoanalytic and deconstructionist approaches to narrative (Squire et al., 2008).

There is a range of approaches to narrative research and a commonly made distinction is between event-centred and experience-centred approaches. Event-centred approaches focus upon the spoken recounting of particular past events that happened to the narrator (Squire et al., 2008, page 5) and are influenced by the work of Labov (Labov and Waletsky, 1967). Experience-centred approaches have a broader focus and explore stories that may be about general or imagined phenomena, things that happened to the narrator or distant matters that they’ve only heard about and can include writing and visual materials as well as speech (Squire et al., 2008, page 5).

The interest in people’s lived experiences and in questions of identity mean that narrative research is particularly appropriate for understanding the experiences of trauma and researching sensitive issues (Crossley, 2000, 2007). Examples of narrative research include an autobiographical study of cancer (Frank, 1995), a study of men living with a long-term HIV diagnosis (Davies, 1997) and a historical study of how mental health service users’ ‘voices’ have changed over time (Crossley and Crossley, 2001).
Chapter 1

If you were going to choose a narrative approach for your own study or proposal, this could be a good way of giving voice to people who are not usually heard and to engage in a long dialogue with many people, particularly if the potential of electronic communications such as e-mail is utilised sensitively and effectively to interact with participants (Kralik et al., 2006).

A research attitude

Whichever research approach and design are chosen, it is important for you as a researcher to develop a ‘research attitude’. This is about being rigorous in your thinking and willing to challenge yourself and others in a responsible way. This has been expressed by Robson (2011) as follows:

- Being systematic: giving serious thought to what is being done and how and why it is being done. This involves considering alternatives and making an argument for the choices made.
- Being sceptical: subjecting ideas to scrutiny and possible disconfirmation. This involves researchers asking themselves what evidence exists for the points they are making and considering alternative explanations.
- Being ethical: working within acceptable parameters. This involves following ethical frameworks, particularly those of the Health Research Authority and the NHS Trust research governance processes, as well as thinking about how their research might affect others (Robson, 2011, page 18), the potential clinical significance of their work and the need to comply with the requirements of professional bodies such as the NMC (Williamson, 2001).

Chapter summary

This chapter has asked you to reflect upon your initial thoughts about engaging in research. You have been introduced to key terms in research, and the distinction between quantitative and qualitative approaches to research was discussed. You have been asked to consider a range of research designs from particular traditions to illustrate the wide diversity of approaches.

In the next chapter we will look at how to undertake a literature review, and appraise and use research to inform practice.

Further reading

General


An excellent, all-round textbook that covers all aspects of the research process, including chapters on different methods (such as experimental and non-experimental methods).

Getting started on your final-year project

Clear and simple book which helps develop skills in the identification, appraisal and application of evidence for nursing practice.


Second edition of a classic text firmly within the qualitative approach, which provides an interesting and detailed account of the differences between positivist and interpretative approaches.


Comprehensive research methods text.

**Action research and participatory action research**


Really good text which deals succinctly with key issues, including methodology and implementation.


A useful collection of chapters by key figures in action research.


This is an excellent resource for nurses and other healthcare professionals seeking to understand and use action research in their clinical practice.

**Case studies**


The classic text on case study design.

**Clinical data mining**


An excellent and interesting account of a new approach to documentary analysis. An insightful and entertaining read.

**Evaluation research**


A useful guide that presents practical advice and real-life examples.


A classic and provocative text from the realist tradition.

**Experimental and quasi-experimental designs**


An excellent resource for students using social science research methods.


One of the seminal research methods texts for nurses.
Chapter 1

Narrative approaches


An excellent introduction to both the theoretical and practical dimensions of narrative research.


An updated version of her classic 1993 text.

Useful websites

Organisations conducting and using research

www.jrf.org.uk
The Joseph Rowntree Foundation. Independent research foundation with useful publications on many subjects, including health and healthcare, poverty and social exclusion.

www.kingsfund.org.uk
The King’s Fund. An independent charity seeking to improve healthcare. See their publications.

www.nice.org.uk
The National Institute for Health and Care Excellence. Provides clinical guidance on healthcare issues.

www.nihr.ac.uk
The National Institute for Health Research. Commissions and funds NHS and social care research and develops research evidence to support decision making by professionals.

www.rcn.org.uk/professional-development/research-and-innovation
The Royal College of Nursing Research and Development Co-ordinating Centre. Facilitates rather than conducts research but aims to increase the capacity of nurses working in research.

www.wellcome.ac.uk
The Wellcome Trust. Charity which funds medical and humanities research.

Research methods sources

www.methodspace.com

http://global.oup.com/uk/orc/sociology/brymansrm4e/
Oxford University Press website. Online resources to support Bryman (2012).

www.socialresearchmethods.net
Web centre for social research methods. Collection of online resources for researchers.