NURSING RESEARCH

An Introduction

Second Edition

SAGE

CONTENTS

RESEARCH IN NURSING

1

LEARNING OUTCOMES

This chapter will enable you to:

- *understand the nature and historical context of nursing research*
- *define research in nursing*
- *understand evidence-based practice*
- *reflect on how to involve the public in research*
- *appreciate the relationship between research and nurse education.*

The care provided by nurses must be based on up-to-date knowledge and research that support the delivery of the highest standards of practice possible. Nurses are developing their own professional knowledge base with strong foundations built on research and evidence. Nurses have a responsibility in some way to contribute to the development of the profession's knowledge through research.

The term 'research literate' or 'research aware' is used by many to describe the way that nurses should be in the 21st century. This means:

- having the capacity for critical thought

- possessing analytical skills

- having the skills to gain access to relevant research and evidence

- having a critical understanding of research processes

- being able to read and critically appraise research and other types of evidence

- having an awareness of ethical issues related to research.

By possessing these skills and being 'research literate', nurses should be able to assess the appropriateness of using specific types of evidence in their daily practice. It should be a

natural activity for nurses to keep up-to-date and use research findings and evidence in their work, and being 'research literate' is one of the basic skills here.

In this chapter, we consider the historical context of nursing research, the nature of nursing research, including different definitions, and the development of evidence-based practice.

HISTORICAL AND CURRENT CONTEXT

Florence Nightingale is often seen as the very first nurse researcher. Her research in the 1850s focused on soldiers' morbidity and mortality during the Crimean War. Nightingale identified 'research' questions in practice and undertook a systematic collection of data to try to find answers to problems. Her 'research' eventually led to changes in the environment for sick people, including cleanliness, ventilation, clean water and adequate diet. However, Nightingale's contribution is seen as atypical with Kirby (2004) pointing out that the development of **nursing research** in the United Kingdom really only started with the inception of the National Health Service (NHS) – now the world's largest publicly funded health service – in the late 1940s. Prior to this, the development of nursing research had relied on a few highly determined individuals and was bound up with the professionalisation of nursing, the demands for suitable nurses, and the raising of educational standards for nurses (Kirby, 2004). Furthermore, in the 1950s, sociologists and psychologists were more likely to be undertaking research into nursing and nurses; only a small number of pioneering nurses were researching nursing and nurses themselves, one being Marjorie Simpson, who started the first self-help group for nurse researchers in 1959 called the Research Discussion Group (Hopps, 1994). This went on to become the Royal College of Nursing Research Society, which still exists today. The Royal College of Nursing is a body in the UK that represents nurses and nursing, promotes excellence in practice and shapes health policies.

Tierney (1998) presented a picture of the development of nursing research across Europe. She identified the UK, Finland and Denmark as having developed in a similar way over the past 30 years, with Estonia, Lithuania and Slovenia only developing in the last 10 years. Growth was particularly evident in the 1980s and 1990s. It can be seen that though overall growth has been slow, it has been more rapid in developed European countries. Many factors have affected this growth, such as the lack of resources and funding to support research, slow development of research training, **capacity** and **capability building**, and the low status of nurses relative to other health professions, particularly medicine. Tierney pointed out that there are four elements that support development: 'bottom-up' initiatives by forward-looking individuals; 'top-down' initiatives through government support; growth of a research infrastructure as seen through universities; and a strategic approach rather than ad hoc initiatives.

In the 1970s, serious consideration of nursing research in the UK came with the publication of the Briggs report (Committee on Nursing, 1972), which recommended that nursing should become a 'research-based' profession. This is often seen as a turning point in the historical context of nursing research, and as something that was badly needed for professional status. However, in the decades following the publication of the Briggs report, many suggested that nursing had not become 'research based', nor had research made an impact on the daily practice of nurses (Hunt, 1981; Thomas, 1985; Webb and MacKenzie, 1993). Specifically, the arguments were that nurses did not read or understand research, nurses did not know how to use research in practice, nurses did not believe research, nurses were not able to use research to change practice, and nurse researchers did not communicate well. It is interesting to think about the current position: Do nurses read research? Do they understand research? Is research impacting on practice?

In 1993, the *Report of the Taskforce on the Strategy for Research in Nursing, Midwifery and Health Visiting* (DH, 1993) was published. It sought to address many of the deficiencies noted earlier about nursing becoming a 'research-based' profession. It was suggested that nurse education, support and research infrastructure needed to be developed to support progress. The report did not suggest that all nurses should be undertaking research; rather it recommended that all nurses should become **research literate**, an essential skill for knowledge-led nursing practice. It became much clearer that all nurses needed to become equipped with the skills of understanding the research process, and an ability to retrieve and critically assess research findings, increasing capacity, with only a few nurses needing to be prepared to undertake research, increasing capability.

The impetus to develop evidence-based practice in order to achieve best care delivery has influenced nurse education. It was recognised that nurses needed to be able to critically read and understand research in order to support its use in practice. In addition, it was suggested that some nurses would need to develop greater research capability in order to lead research and contribute to the existing evidence base. This led to a number of changes, such as the funding initiatives of HEFCE (2001) mentioned earlier and innovations in the delivery of nurse education. Research was fully integrated into the pre-registration curricula in the 1980s (UKCC, 1986) and introduced to post-registration provision shortly after (UKCC, 1994). The move of nurse education into higher education institutions in the 1990s supported ongoing academic development. The UK has 30 per cent of nurses qualified at degree level or above (Ball and Pike, 2009) and increased numbers studying at Master's and doctoral levels.

The Higher Education Funding Council, a body that promotes and funds high-quality, cost-effective teaching and research in higher education in England (HEFCE, 2001) provided capability building for both nursing and allied health professionals following the 2001 Research Assessment Exercise (RAE). A further RAE in 2008 also saw some

universities secure monies to support capacity building, some of which will have bene-fited nurse researchers. The RAE was an audit of research volume and quality, which allocates research funding to Higher Education Institutions based on the quality of research activity. Nursing departments scoring 3a and 3b in the 2001 RAE received funding through the Research Capability Fund. The results of the 2008 RAE showed 36 institutions entered 641 whole time equivalent (wte) staff. These results showed a positive impact on patients, families and communities, with nursing rising from the bot-tom to the middle of the table. Nineteen per cent of the research was ranked world leading in terms of originality, significance and rigour (Council of Deans, 2009). The Research Excellence Framework exercise submitted in 2013 supersedes the RAE. This submission sees nursing and midwifery as part of a larger Unit of Assessment, which includes other disciplines such as pharmacy and allied health professions. The submissions will be judged on research outputs including publications, the research environment (which includes doctoral complications) and the impact of the research in a range of areas such as practice, policy and economics. Only the highest levels of quality research will receive funding and be deemed as world leading and internationally excellent in terms of origi-nality, rigour and significance. It will be interesting to see how nursing research is assessed and what impact this has on future funding.

Attention has also been given to developing the clinical research workforce. The UK Clinical Research Collaboration (UKCRC) reported in 2007 on *Developing the Best Research Professionals: Qualified Graduate Nurses – Recommendations for Preparing and Supporting Clinical Academic Nurses of the Future* (UKCRC, 2007). This report was part of the agenda to modernise nursing careers, developing and preparing nurses to lead in a modernised healthcare system (DH, 2006). The report recommended the establishment of a range of research training opportunities including Master's and doctoral studies and fellowships, career flexibility allowing the combination of research and clinical practice and information provision to promote career opportunities for nursing. Development followed with the launch in 2009 of a funded programme from the National Institute of Health Research and the Chief Nursing Officer to fund Master's degrees in research, doctoral and postdoctoral programmes.

The development of nursing research has also been aided by nursing organisa-tions both nationally and internationally. This is acknowledged by Tierney (1997), who suggests that national nursing associations across Europe have been instrumental in strengthening the support for nursing research. In the UK, the Royal College of Nursing has a well-established research and development (R&D) support resource that can be accessed via the World Wide Web, as well as the Research Society, an institute and occasional funding for research projects. In the UK, the Foundation of Nursing Studies and the Queen's Nursing Institute are just two of the organisations that support nursing research. The Department of Health has occasional streams of funding specifically for nursing research, as well as multi-disciplinary health research

funding opportunities. Nurses now compete on a national basis with other disciplines for research funding.

Rafferty (1997), however, argues that we cannot ignore the 'politics' of nursing research, particularly the economic and organisational factors that influence research priorities. In nursing, these influences are powerful and there is no doubt that they affect the direction and development of nursing research in the UK. Economic, political and organisation factors influence the types of research that nurses undertake and can influence where the research funding is allocated.

Some nurse researchers have benefited from the Department of Health five-year strategy set out in 2006, which aimed to see the UK as a world-class environment for health research, development and innovation (DH, 2006). The strategy outlined a development plan that aimed to see more patients and healthcare professionals engaged in health research, which increased the evidence base and improved health and healthcare. To support this, the development of research policy and commissioning of research through the NHS R&D programme was recast into key programmes:

- Health Technology Assessment – devices, equipment, drugs and procedures across all healthcare sectors.

- The Service Delivery and Organisation R&D programme – how the organisation and delivery of services can promote quality care.

- The New and Emerging Applications of Technology Programme (NEAT) – the use of new and emerging technologies to develop healthcare products and interventions.

Many nurses have led and been members of research teams benefiting from these funding initiatives.

A recent commission on nursing, *Frontline Care: Report by the Prime Minister's Commission on the Future of Nursing and Midwifery in England* (Commission on Nursing and Midwifery, 2010), has promoted the need for innovation in nursing and midwifery, suggesting the need for capacity building in nursing and midwifery and the need for future development of research skills through clinical academic career pathways, changes in undergraduate nurse education which is to provide only undergraduate degrees in nursing from 2013 onwards and the strengthening of integration between nursing and practice, education and research.

Additionally, there are publications relating to nursing research development within Scotland (National Guidance for Clinical Academic Research Careers for Nursing, Midwifery and Allied Health Professions (NHS Education for Scotland, 2011)) and Northern Ireland (Health and Social Care Research and Development Strategy 2007–2012 (Research and Development Office, 2007)). It should be noted that policy changes rapidly, and readers may find it useful to keep updated by accessing the Department of Health website (www.dh.gov.uk).

Table 1.1 Key strategy documents

Document	Development issues
Making a Difference: Strengthening the Nursing, Midwifery and Health Visiting Contribution to Health and Healthcare (DH,1999)	• Need for nurses to develop critical research appraisal skills. • Need for nurses to influence the government's research and development policies.
Towards a Strategy for Nursing Research and Development (DH, 2000)	• Need for monies to support research programmes. • Need for capability building through collaborative partnerships.
Promoting Research in Nursing and the Allied Health Professions (HEFCE, 2001)	Need for capability building to support evidence-based practice and the RAE.
Best Research for Best Health: A National Health Service Research Strategy (DH, 2006)	Need to develop a world-class environment for health research, development and innovation.
Developing the Best Research Professionals (UKCRC, 2006)	Need to develop clinical research career structures for nurses – suggested models are based on the clinical academic career model.
Frontline Care: Report by the Prime Minister's Commission on the Future of Nursing and Midwifery in England (Commission on Nursing and Midwifery, 2010)	Need for capacity building in nursing and midwifery and the future development of research skills through clinical academic career pathways, changes in undergraduate nurse education which is to provide only undergraduate degrees in nursing from 2013 onwards and the strengthening of integration between nursing and practice, education and research.

HOW DO WE UNDERSTAND THE NATURE OF NURSING RESEARCH?

Though the growth of nursing research has been slow, it continues to develop and is broad-ranging, relating to practice, policy, education and management. It encompasses, for example, research about the effectiveness of nursing practice, the development and evaluation of new types of care delivery, the expansion of nursing theories and concepts, the impact of policy on practice, new roles, and new ways of educating the nursing work-force. Nursing research is interested in what patients and clients feel and experience, how nurses learn and develop throughout their careers, how multi-disciplinary working and learning contributes to the care of patients, and the outcomes of nursing practice. The nursing profession is continually striving to develop its own body of research, and to contribute to health services research and the social sciences.

The nature of nursing research is complex. We have already suggested that nursing research is broad and wide-ranging, capturing research into practice, care outcomes, education and management issues. Additionally, it should be remembered that nurses work as part of interprofessional teams, in different healthcare settings and increasingly for different healthcare providers. A number of research issues and questions might therefore arise that relate to interprofessional working. These factors impact on how nursing research is defined. Definitions of nursing research reflect the perspective of those researching nursing.

Bowling, in describing research on health and health services, defines research as 'the systematic and rigorous process of enquiry that aims to describe processes and develop explanatory concepts and theories in order to contribute to a scientific body of knowledge' (2009: 16). She then goes on to acknowledge the importance of multi-disciplinary health services research, which includes anthropologists, epidemiologists, health economists, medical sociologists and statisticians, amongst others, who conduct healthcare research. Each discipline can come with their own perspective on what defines research and how it should be conducted. Thus, in defining nursing research there must be recognition of the potential multi-disciplinary nature of research teams and the consequential wide range of 'qualitative' and 'quantitative' research methods that will be employed to address the broad range of research issues.

Before moving on to consider definitions of research, it is important to understand the main research approaches used – qualitative and quantitative – and to appreciate that to address the complexity of nursing research both approaches can often be combined within one study. The research approach is the whole design, which includes the researcher position and assumptions, the process of enquiry and the way data are collected and analysed. Qualitative research is part of an interpretivist or constructivist position that has long been part of social and behavioural sciences (Guba and Lincoln, 1982). The approach is used to describe and understand individual perspectives and experiences. For example, qualitative research may be used to answer questions about the patient experience or staff perceptions of new ways of working or new roles in nursing. Qualitative research can explore questions such as: What are patients' experiences of the cardiac rehabilitation service? How have patients experienced a new nursing role? To gather information about personal views and experiences, research methods such as interviewing and observation are used, collecting textual or visual data for analysis.

Quantitative research has its origins in a scientific paradigm and its roots in positivism, which believes human phenomena can be subjected to measurement and objective study. In nursing research, quantitative approaches can be used to measure whether one treatment has a better effect than another. For example, quantitative designs might answer research questions such as 'Is treatment A better than treatment B?' The researcher may be guided by a hypothesis, a statement for testing (see Chapter 6) – for example, 'Adults classed as clinically obese receiving an exercise programme of

30 minutes per day will have greater weight loss within two months of starting the programme than those undertaking a 10-minute exercise programme for two months'. Quantitative research takes a formal approach to the collection and analysis of numerical data. Within this approach, health economics data may also be collected to show the economic benefit of service delivery for healthcare. For example, the introduction of a new service may require some measure of economic impact or benefit, often ascertained through the use of validated measures. For example, particular tools can be used to look at the impact of a service on service user well-being. Such tools can be administered to service users prior to and following service implementation, and comparisons are made which allow the researchers to draw conclusions about the impact of the service on well-being.

In this book, we discuss the different types of research in detail, identifying the strengths and limitations of each (see Chapters 11 and 13–17). In doing this, we introduce you to the range of research methods that might be used either independently or as part of a mixed methods approach.

Given the complex nature of nursing research, finding one definition that achieves consensus is difficult. However, in most definitions of research there are some core elements:

- a systematic process

- a search for new knowledge or a deepening of understanding

- activities that are planned and logical

- a search for an answer to a question

- the collection of new data.

We use the following basic definition of research for the purposes of this book: 'a systematic approach to gathering information for the purposes of answering questions and solving problems in the pursuit of creating new knowledge about nursing practice, education and policy' (Moule and Hek, 2011: 11).

WHO DOES RESEARCH IN NURSING?

As mentioned previously, researchers from other disciplines carried out much of the early nursing research in the 1950s, 1960s and early 1970s, including sociologists, psychologists, social and welfare policy researchers, and historians. Research was undertaken from a discipline perspective and nurse researchers at the time learnt about a wide range of research approaches and methods. Nurse researchers developed their research skills from social scientists and health researchers, who included them on research teams. Historians,

economists, statisticians, epidemiologists, geographers and anthropologists also brought their own approaches and techniques to nursing research.

This position has changed in the last 30 years or so, with many nurses now leading and undertaking their own research as well as being involved in multi-disciplinary research teams. Increasingly, health services research involves multi-disciplinary teams including health professionals, statisticians and health economists. Nurses can be part of these teams, directly employed on a specific project – for example, a clinical trial examining the effectiveness of a particular drug treatment or practice, or an evaluation of what works in family support or child protection. Whilst a number of nurses are employed as 'research nurses' who work as part of a team with responsibility for recruitment and data collection, nurse researchers increasingly have a larger input into studies than in the past. Nurses can undertake principal investigator roles, leading in project design and management, as well as data collection and analysis. We could think about local examples of research that might provide further evidence of this change, for example: Are there research projects in practice that involve nurses? What are the roles of nurses in these projects?

As mentioned at the beginning of this chapter, all nurses need to become 'research literate'. Nurses studying at undergraduate level are most likely to undertake activities such as designing a questionnaire or interviewing colleagues as exercises to help them understand research methods and the research process. Most commonly, nursing students will practise skills to enable them to find and critically appraise research literature. All nursing students are likely to write essays using research findings and evidence, and all these activities are important and necessary in helping nurses to become 'research literate'. Some nurses at undergraduate level may undertake their own literature-based review or research study. This may be a small individual research project as part of a pre- or post-qualifying degree course or can involve being a member of a project team, exploring an aspect of practice.

More and more nurses are educated to Master's level, with the number aspiring to doctoral-level education increasing both in Higher Education Institutions and clinical practice settings. This is a major change from 30 years ago when those studying to Master's and doctoral level were less common. There are also opportunities for those successfully completing doctoral programmes to undertake funded research fellowships and post-doctoral opportunities with universities and other research institutions. These opportunities are often made available through the UKCRC (2007) as part of the National Institute for Health Research (NIHR) Clinical Doctoral Research Fellowship programme and by organisations such as The Leverhulme Trust, who provide funded fellowships for periods of 3 to 24 months, secured through a competitive tendering process. These posts are part of a research career pathway and researchers can work either as independent investigators or with the support of a principal investigator. This means that nurses have undertaken major pieces of research to a high level, and as nurses improve their capabilities as researchers they are more likely to lead research projects and teams and secure external funding through competitive tendering from major sources such as the National

Institute for Health Research and the Medical Research Council. There are many more Chairs in Nursing (professors) than ever before and nurses are holding senior board-level positions in higher education, the NHS and other healthcare organisations. This all signals a healthy situation for nursing research, with nurses becoming more deeply involved in research, though with still some way to go (UKCRC, 2007). We can probably find evidence to support these changes in the local setting, for example: Are there nurses studying for Master's degrees and doctorates in the locality? Are professors of nursing employed in hospitals or local universities? Do professors and those completing doctorates and higher studies publish nursing literature?

WHAT IS EVIDENCE-BASED PRACTICE?

Making decisions about the type of nursing care to give to service users is not easy. It may mean making choices between a number of alternative actions that involve treatment choices, provision of services or efficiency.

Evidence-based practice promotes quality and cost-effective outcomes of healthcare, with Schmidt and Brown (2011) suggesting it is 'practice based on the best available evidence, patient preference and clinical judgement' (p. 5). From this definition, we can see that the decision should be made explicit and based on the current best evidence, as well as using the practitioner's own expertise, and taking account of patient views.

These days, the input of the service user is seen as paramount to any decision that is made about the provision of healthcare for an individual. The Health and Social Care Bill (DH, 2011) has given patients a greater voice in the commissioning of services, with Local Health Watch Organisations ensuring patient and carer views are an integral part of service commissioning being led by GPs. Therefore, it is reasonable to say that there are three clear key components to evidence-based practice. When making an 'evidence-based' decision about the care of a particular patient, the nurse should:

- use the best available current evidence

- consider the preferences of the individual service user

- use their own expertise and experience to make decisions.

In making decisions about how to care for a patient, the nurse should search for and use the best available evidence in their practice, they should consider the requirements, values, circumstances and preferences of the patient and they should integrate their own professional experience, expertise and judgement when making a decision. All three elements need to be used together, although the importance of each may vary in different situations.

The over-riding principle is that of giving the most effective care to maximise the quality of life for an individual.

Evidence-based practice is seen as comprising five explicit steps:

1. Identify a problem from practice and turn it into a specific question. This might be about the most effective intervention for a particular patient, or about the most appropriate test, or about the best method for delivering nursing care.

2. Find the best available evidence that relates to the specific question, usually through a thorough and systematic search of the literature.

3. Critically appraise the evidence for its validity (closeness to the truth), usefulness (practical application) and methodological rigour.

4. Identify and use the current best evidence, and together with the patient or client's preferences and the practitioner's expertise and experience, apply it to the situation.

5. Evaluate the effect on the patient or client, and reflect on the nurse's own performance.

Current pre-qualifying nurse education helps students address all these stages, but specifically practitioners need to learn how to search effectively for appropriate evidence and research through a range of literature sources (see Chapters 7 and 8) and how to critically appraise research (Chapters 7, 8 and 9).

Evidence-based practice emerged in the 1990s and has had a significant impact on health service delivery including nursing practice. Evidence-based medicine was the starting point of the movement (Reynolds, 2000), and this was swiftly adopted by other professional groups including nursing (Trinder, 2000a).

The successful emergence of evidence-based practice has been argued by those within the movement as being due to the obvious, simple, sensible and rational idea 'that practice should be based on the most up-to-date, valid and reliable research' (Melnyk and Fineout-Overholt, 2005). The context in which it has developed may go some way to explain why the movement has flourished in many areas of healthcare practice. Within recent years, there has been a cultural shift within the healthcare professions from one of trusted, professional judgement-based practice to that of evidence-based practice.

Glicken (2005) suggests that there are a number of contributing factors including: growth in an increasingly well-educated and well-informed public; increasing awareness of the limitations of science; growth in consumer and self-help groups; intensive media scrutiny; explosion of the availability of different types of information and data; developments in information technology; increasing emphasis on productivity and competitiveness; emphasis on 'value-for-money' and audit; increase in scrutiny, accountability and

regulation of professional groups; lawsuits and compensation; and major adverse events within the health services.

This cultural shift has resulted in an explosion of evidence-based initiatives and new terminology within the health services since the mid-1990s. These include initiatives such as Evidence-based Child Health and Evidence-based Mental Health; specialist 'evidence-based' journals; websites and web-based discussion lists. It also includes the Centre for Reviews and Dissemination at York that undertakes the review and dissemination of research results for the NHS, and the UK Cochrane Centre that collaborates with others to build, maintain and disseminate a database of systematic, up-to-date reviews of randomised controlled trials of healthcare. This has had an effect on how research and evidence are considered and used by nurses and how evidence and practice drive (and are driven by) practice and policy more than ever before.

The growth of evidence-based practice is not without its critics. They point out that it constrains professional decision making and autonomy; that it is too simple and is 'cook-book' practice; that it is a covert method of rationing resources; that it exalts certain types of research evidence over other types of knowledge and evidence; and that research trials are usually not directly transferable (Jenicek, 2006). There are concerns that the effective implementation of evidence-based practice has been hindered by the **hierarchy of evidence** that promotes randomised controlled trials as the highest form of evidence and neglects to recognise the value of reflection in developing best practice (Mantzoukas, 2008).

There are limitations with evidence-based practice in all aspects of healthcare but particularly with nursing. For example, in mental health nursing there is less research evidence to support the development of effective nursing care. There are a number of reasons for this, including a lack of time and resources to undertake the type of research needed, such as controlled trials and cultural barriers in health organisations and the organisation of nursing education, which has not equipped all nurses with literature searching and critical appraisal skills.

It is possible to overcome some of these barriers, particularly through education and training. There is also research examining the barriers to evidence-based practice, and ways to overcome them. Finally, there are ways of finding evidence that has already been reviewed and appraised. These include evidence-based clinical guidelines from the Cochrane Reviews (systematic reviews of healthcare interventions which promote a search for evidence in the form of clinical trials and other studies of interventions) and the National Institute for Clinical Excellence (NICE) (an independent organisation responsible for providing national guidance on promoting good health and preventing and treating ill health), which includes the Centre for Reviews and Dissemination based at York University. The Centre provides research-based information on the effects of

health and social care interventions in a database and undertakes and publishes systematic reviews.

WHAT IS THE HIERARCHY OF EVIDENCE AND RESEARCH?

The idea of a hierarchy of evidence has evolved as a response to the notion that some research designs, particularly those using quantitative methods, are more able than others to provide robust evidence of effectiveness, that is, what works. The most common type of hierarchy therefore places evidence gathered through research at the top, with a systematic review of evidence from multiple randomised controlled trials (RCTs) being the pinnacle:

1. Evidence from a systematic review of multiple well-designed RCTs.

2. Evidence from one or more well-designed RCTs.

3. Evidence from experiments without randomisation or from single before-and-after studies, cohort, time series or matched case-controlled studies or observational studies.

4. Evidence from well-designed descriptive studies or qualitative research.

5. Opinions from expert committees or respected authorities based on practice-based evidence.

6. Personal, professional and peer expertise and experience.

(See Evidence Based Nursing Practice at www.ebnp.co.uk for further examples.)

This hierarchy of evidence is only appropriate for research questions that are seeking an answer about what works. For example, if a nurse wanted to know the best way to dress a particular type of wound, say a burn, then the above would help in making decisions about the best type of evidence. This would be a well-designed RCT, or even better, a systematic review of RCTs. However, if nurses wanted to develop understanding about what it feels like to have severe burns, so that they could develop their communication and empathetic skills, then qualitative research would be more informative.

The importance of nursing research for practice has been reiterated in the recent Francis Inquiry (2013) into the care delivered at one NHS hospital. The report made a number of recommendations and reinforced the need for National Institute of Clinical Excellence (NICE) evidence to inform evidence-based procedures and practice. Research

provides evidence used in the development of NICE guidance, it improves nursing knowledge and practice, it can help reduce unnecessary costs and it can aid decision making.

REFLECTIVE EXERCISE

Let's think about a possible practice situation where you are caring for a patient who has just been told he has prostate cancer. How would you know what was the best care to deliver for your patient and his family? Think about the steps you might take. One of the things you may need to do is source information that will help your patient understand more about prostate cancer. You could ask more senior staff for advice and what information they might use. It is also important to remember the need to deliver evidence-based care and use the best evidence available. You can use published evidence for healthcare professionals and patients and families, available from the Prostate Cancer UK charity (www.prostatecancer.org.uk). You could read the current NICE guidance available on their website (www.nice.org.uk). This provides a robust evidence base for practice, which can give you both scientific and economic information to work with. The evidence covers: what kinds of information might be provided; where to find this information; and what treatments might be considered. These guidelines are based on a range of research findings and evidence, and provide guidance for a range of healthcare professionals to help deliver best care.

HOW DO YOU INVOLVE THE PUBLIC IN RESEARCH?

Patient and public involvement in health and social care research (PPI) has increased in recent years. Developments have placed greater emphasis on the meaningful engagement of service users and carers in research, moving away from limited public participation to embrace public involvement. The public were encouraged to participate in research through their recruitment to clinical trials or the completion of interviews and questionnaires. Whilst public participation remains vital, PPI takes a broader view and includes research undertaken with and by patients, rather than for, to or about them (Involve, 2012). This approach recognises the importance and relevance of involving patients in all stages of the research process, so that the public can influence research questions and design.

Different levels of involvement are seen within projects, often reflecting the nature of the research question being explored. Most funders of health and social care research include criteria for PPI in tender documents and assess the level of proposed public involvement as part of the process of reviewing funding applications. The National Institute for Health Research, for example, looks for active and meaningful PPI within all stages of the research process. The UKCRC has a strategic plan to support public involvement in its

work, recruiting the public to advisory groups and providing information through its 'People in research' website (www.ukcrc.org).

The ways in which patients and the public can be involved in research are summarised in Table 1.2. The degree of involvement will vary according to a number of factors, such as the research question being asked, the skills of the patients and public involved and their preferred level of involvement, funder requirements, the skills and experience of the researchers and the level of research funding available for PPI. Involve, funded by the NIHR, provide detailed information, knowledge and understanding on how to involve the public in research and aim to share new learning of PPI with researchers. A recent review of PPI in research found impact in relation to developing research questions, prioritising topics and developing commissioning briefs. There was also evidence of impact in undertaking research, in particular the development of protocols, data collection tools and associated consent forms and research information sheets (Brett et al., 2010).

Table 1.2   Involving patients and the public in research

Identifying and prioritising	Identifying research problems and questions and agreeing the research priorities.
Design	Informing/commenting on the research design for a study.
Development of a proposal	Involvement in developing and reviewing a research proposal to submit to a funder.
Grant holders and co-applicants	Involvement as a co-applicant or lead applicant for a grant means taking a leadership role in the research.
Steering group	Membership of a project steering group or advisory board, offering advice from their perspective on the ongoing progress and activities of the project.
Design of materials	Input into the development of data collection tools, research information sheets and assist in the development of materials for ethical approval, such as patient consent forms.
Data collection and analysis	Input to the development and implementation of a sampling strategy and help access the sample group. They can also undertake data collection such as interviews, and/or analyse research data.
Dissemination	Part of writing teams, leading or inputting to the development of academic papers. Can lead or be part of a conference presentation. Can help develop leaflets/information advising the public of the research outcomes.
Implementation	May have a role in implementing the research findings in practice, working with local networks and groups.
Evaluation	Can support the evaluation of new service developments resulting from the implementation of research findings and outcomes.

Researchers often require support with PPI, especially if new to working with the public in research. They need to recognise that whilst involvement will bring a range of potential benefits to the project, there are also additional considerations to be made and costed out if PPI is to succeed. The following University of the West of England (UWE) guidelines (http://uwe.ac.uk/suci/research.aspx) highlight some of the areas for consideration:

- Researchers will need education and preparation to work with the public in research.
- The project plan must include time for meaningful involvement.
- Involvement should start as early as possible, preferably as part of the project planning/proposal stage, if not before.
- The researchers should be clear about what is involved in the project and what the expectations of the public/patient members are.
- Ongoing support should be provided for the public/patients and may necessitate a specific liaison/support role in the project.
- Communication between the researchers and public needs to be clear.
- All project materials should be accessible to the public, with care taken in presentation and the use of language.
- The public/patients should be involved in the dissemination of the project outcomes.

WHAT IS THE RELATIONSHIP BETWEEN RESEARCH AND NURSE EDUCATION?

The Commission on the future of nursing and midwifery in England (Commission on Nursing and Midwifery, 2010) suggested that all pre-registration education should be offered at undergraduate level only, removing the option of studying at diploma level. This is something that will be implemented in England in 2013 (NMC, 2010) and will bring England in line with the current graduate-only pre-registration provision in Scotland and Wales. The change reflects a desire to ensure graduate nurses have the knowledge and skills to undertake complex assessments, use evidence to make decisions and agree interventions in a number of complex and changing healthcare environments. It affirms the importance of educating nurses to degree level and equipping them with the ability to critically review and implement research and evidence in practice. This is essential to ensure best care delivery, which uses the best available evidence. It also strengthens the integration of nursing practice, education and research. It is hoped that this integration will achieve excellence in education that will support research and innovative practice.

The ongoing development of research capacity and capability in nursing will also provide the nurse researchers of the future. Offering opportunities to engage with research and evidence-based practice at undergraduate level and beyond can inspire the next generation of nurse researchers who will address key nursing research questions from a nursing perspective. The ultimate aim of this is the development of best practice and quality patient care across a range of environments.

CHAPTER SUMMARY

- Nursing research today has been shaped by its historical roots, and political, economic and organisational influences.

- Defining what research is, is not easy, and debates surround the nature of nursing and health services research.

- The development of evidence-based practice has been rapid and influential.

- All nurses must become 'research literate' and learn the essentials of evidence-based practice.

- Some nurses will become researchers as part of their role in practice, or through a career in teaching, policy development or leadership.

- There is recognition of the importance of involving the public in research.

- There is a strengthening of the integration of nursing practice, education and research.

SUGGESTED FURTHER READING

Brett, J., Staniszewska, S., Mockford, C., Seers, K., Herron-Marx, S. and Bayliss, H. (2010) *The PIRCOM Study: A Systematic Review of the Conceptualisation, Measurement, Impact and Outcomes of Patient and Public Involvement in Health and Social Care Research*. London: UKCRC.

Cullum, N., Ciliska, D., Haynes, B. and Marks, S. (eds) (2007) *Evidence Based Nursing: An Introduction*. Oxford: Wiley. This practice guide introduces key information to help nurses understand and evaluate different types of evidence. It covers how to critically appraise evidence and gives guidance on how to implement evidence in practice.

Schmidt, N. and Brown, J. (2011) *Evidence Based Practice for Nurses*, 2nd edition. Sudbury, MA: Jones & Bartlett. This text defines evidence-based nursing practice and considers its implementation. It guides the reader in the appraisal of EBP through a series of chapters.

USEFUL WEBSITES

Centre for Evidence Based Medicine: www.cebm.net – based at the University of Oxford, the centre provides courses and workshops for healthcare staff wanting to develop evidence-based medicine skills.

Centre for Reviews and Dissemination: www.york.ac.uk/inst/crd – part of the National Institute of Health Research which provides a database of the effectiveness of health and social care interventions and systematic reviews.

Cochrane Reviews: www.cochrane.org/ – systematic reviews of primary research in healthcare and health policy, which address specific research questions. The reviews are internationally recognised and published in The Cochrane Library.

Evidence Based Nursing Practice: www.ebnp.ac.uk – provides information on evidence-based nursing practice and the hierarchy of evidence.

Foundation of Nursing Studies Centre for Nursing Innovation: www.fons.org/ – the FoNS is a registered charity that works with nurses and healthcare professionals to develop and share innovative practice with the aim of delivering high-quality and evidence-based patient care.

National Institute for Clinical Excellence (NICE): www.nice.org.uk/ – provides advice on best care developed from the best available evidence to health and social care professionals.

Royal College of Nursing Research Society: www.rcn.org.uk/development/researchanddevelopment/rs – provides information on the RCN research society and its activities, which include an annual international research conference.

UK Clinical Research Collaboration: www.ukcrc.org/ – aims to establish the UK as a world leader in clinical research through identifying the barriers to research and working to overcome them. One particular initiative is the support of clinical academic careers for nurses and allied health professionals.

To access further resources related to this chapter, visit the companion website at www.sagepub.co.uk/moulegoodman2e

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