MAKING SENSE OF RESEARCH IN NURSING, HEALTH & SOCIAL CARE
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MAKING SENSE OF RESEARCH
IN NURSING, HEALTH & SOCIAL CARE

PAM MOULE

5TH EDITION
1 THE ROLE OF RESEARCH IN THE HEALTH AND SOCIAL CARE PROFESSIONS

LEARNING OUTCOMES

On completion of this chapter the reader should be able to:

- understand the development of research in the health and social care professions
- appreciate the need to become ‘research literate’
- identify the major factors that contribute to debates about the nature of research and evidence
- understand the emergence and development of evidence-based practice
- consider different ways of defining research
- appreciate the economic costs associated with research activity.

KEY CONCEPTS

- research literacy
- evidence-based practice
- research in context
- research capacity and capability
- definitions of research
- hierarchies of evidence

INTRODUCTION

The terms ‘research literate’ or ‘research aware’ have been used by many to describe the way that the professional health and social care practitioner should be in the twenty-first century. These are the terms that are favoured here as the intention in this introductory book is not to provide a text that equips health and social care professionals to undertake research, but rather to assist all
practitioners to become ‘research literate’ or ‘research aware’ through a greater understanding of research within their respective professional groups. However, this does not mean that health and social care practitioners should not be undertaking research. To the contrary, health and social care professions all need more researchers in their field of practice and it is important to build the research capability (skills) of practitioner researchers as well as research capacity (volume). However, particular skills and knowledge are required to become a researcher in a particular field of practice, for example, social work, midwifery, physiotherapy, nursing, just as in any other specialist area, such as mental health, safeguarding children or cancer care, and that is beyond the remit of this book.

The majority of health and social care practitioners do not have, nor necessarily need, the skills required to undertake a research project themselves. What we all need, however, are the skills and knowledge to appreciate, understand and use research and evidence in order to provide the highest quality and most effective care possible for our patients, clients, service users and carers. It should be a natural activity for health and social care practitioners to keep up to date and use research findings and evidence in their work, and being ‘research literate’ is one of the basic skills required of all these professional groups.

**RESEARCH LITERACY**

The term ‘research literate’ means: having the capability for critical thought, possessing analytical skills, having the skills to gain access to relevant research and evidence, having a critical understanding of research processes, and being able to read and critically appraise research and other types of evidence. Through possessing these skills and being research literate, health and social care practitioners will be able to assess the appropriateness of using specific evidence in their daily practice, and identify research problems and priorities. This is not an easy task and it is generally accepted that more health and social care practitioners need to become ‘research aware’ and ‘research literate’.

Health and social care practitioners also need to have an awareness of any potential ethical issues that may arise in relation to their patients, clients, service users and carers if research is undertaken. This includes having an understanding of the implications of collecting data for other researchers, and the statutory duties and responsibilities associated with their professional groups that may not sit comfortably with research.
The groups that fall within the scope of health care and therapy professions that have been included in this book are nurses, midwives, physiotherapists, podiatrists, occupational therapists, speech and language therapists, radiographers, and paramedics. Within social care, social workers are considered as the primary group concerned with skilled delivery of a professional practice. These health and social care professional groups span: hospital, residential, community and primary care; statutory, voluntary, independent and non-profit health and social services; and preventive, therapeutic and supportive services.

Prior to the introduction of diploma and graduate level pre-qualifying education for many of these professional groups in health and social care, research awareness and understanding were limited in the curriculum. This means that there are many qualified practitioners who have not had the opportunity to explore and become aware of research and evidence-based practice. These practitioners now recognise the need to become ‘research literate’ and are seeking out opportunities to develop their understanding and awareness of research in the health and social services. There are many courses, study days, online and web-based resources, virtual groups and networks, books and journal articles which are more accessible to most practitioners, and being able to attend a conference or specialised study day is also a good opportunity to become aware of research in one’s own area of practice.

The care provided by all health and social care practitioners must be based on current knowledge and evidence that promotes the delivery of the highest standards of care possible. All the professional groups in health and social care are working hard to develop their own professional knowledge base with strong foundations built on research and evidence. Each professional group has research leaders who are striving to develop research knowledge and evidence for both their professional colleagues and the users of their services, such as clients and patients. Excellence in practice is dependent on the research and evidence base of each professional group and we all have a responsibility in some way to contribute to our own profession’s knowledge through research.

**RESEARCHERS IN HEALTH AND SOCIAL CARE**

As previously mentioned, there are many people who undertake research that could come under the broad category of health and social care research. There are those in disciplines such as psychology, sociology, social and welfare policy, and other social sciences
who have a clear relationship with health and social care and who research from the perspective of their own discipline using techniques that might be specifically related to that discipline. There are also researchers, such as historians, economists, statisticians, epidemiologists, geographers and anthropologists, who will again bring their own discipline to a particular research project. Practitioners also undertake research from their own professional perspective, such as physiotherapy, social work or nursing, in order to make a direct improvement to their practice and this may involve more active research approaches than in other areas of research. Practitioners who are working in therapy or nurse consultant roles, or those who are advanced practitioners, are also likely to be undertaking research directly related to their area of expertise.

There is a growing body of service user and carer-led research that brings a different perspective to the research endeavour and an increasing attention to engaging service users in research activity. The engagement and involvement of the public in research is supported by the work of Involve (www.invo.org.uk). Involve is a national advisory group funded by the National Institute for Health Research (NIHR). Its role is to promote public involvement in NHS, public health and social care research. It supports the involvement of the public in research as it believes engagement makes the research more relevant, reliable and more likely to be used. The public are more often involved as co-applicants on research bids and can have various roles within the research. These may range from offering advice from the user perspective through to being a member of the research team with responsibility for various stages of the research, including data collection and analysis. This type of research and the researchers on the team will be seeking to directly improve care within a particular client or patient group.

There is a growing emphasis in health services research that requires the involvement of multidisciplinary teams to address research questions. These teams include health professionals, social scientists, statisticians and health economists. There may be physiotherapists, nurses, podiatrists or speech and language therapists directly employed in specialities such as carer support, breast care, respiratory medicine, paediatrics or diabetes care, who undertake small studies in their own area of work; or there may be health and social care practitioners employed directly on a specific project, for example a clinical trial examining the effectiveness of a counselling service, or looking at what works in family support. A quick look at journals related to the health and social services will give some idea of the types of research that are conducted and reported by health and social care professionals.
Some health and social care practitioners may undertake research as part of a pre- or post-qualifying degree course, or during a period of learning, and many more now study at postgraduate level including master's and doctoral studies. In 2005, for example, it was noted that 900 nurses were registered on doctoral programmes (Higher Education Statistics Agency, 2005). Health and social care students studying at diploma and degree level are often not encouraged to undertake research, although they might perform activities, such as designing a questionnaire or interviewing colleagues, as exercises to help them understand research methods. More commonly they will develop skills to enable them to critically appraise research in order to inform their practice and service improvement. Students may also undertake project work or write essays using research findings and evidence. All these activities are important and necessary in helping health and social care practitioners to become research literate.

Recently a commission on nursing has promoted the need for innovation in nursing and midwifery, promoting the need for capacity building, the development of research skills and strengthening the integration between nursing practice, education and research (Commission on Nursing and Midwifery, 2010). The changes to the provision of undergraduate nursing degrees only and the development of Clinical Academic Training Programme for Nurses, Midwives and Allied Health Professions (www.nihrtcc.nhs.uk) should further aid capacity building.

Health and social care practitioners are also being engaged in developing evidence-based quality care as part of the service improvement agenda for the NHS (Darzi, 2008; NHS Improvement, 2008). The service improvement approach takes a patient focus and reviews care delivery systems and processes in order to improve service delivery. Proposed care delivery changes are tested through a Plan, Do, Study, Act (PDSA) cycle. The cycle starts with a planned change, the change is implemented, and the outcomes are studied and used to inform further change implementation.

THE DEVELOPMENT OF EVIDENCE-BASED PRACTICE

Evidence-based practice has rapidly emerged since the early 1990s and has had a significant impact on health and social service provision. As the starting point for this movement, evidence-based medicine was seen as using its current evidence base to inform decisions about individual patient care, and the best evidence was not restricted to Randomised controlled trials (RCTs) (Sackett et al., 2006). There
has been a swift adoption of key concepts in other professional
groups, which are now using the terms evidence-based nursing,
evidence-based occupational health, evidence-based public health
and evidence-based mental health. In other areas, such as social
work, the notion of evidence-based practice has been refashioned to
reflect the need for social care professionals to research their prac-
tice and develop knowledge in ways that are appropriate for profes-
sional practice.

The growth of evidence-based practice is not without its critics
across all areas of health and social care, and there is limited consen-
sus on its merits. Some point out that there is no ‘evidence’
that evidence-based practice actually works and that it constrains
professional decision-making and autonomy. It is criticised for
being ‘too simple’; and some argue that it is a covert method of
rationing resources, that it exalts certain types of research evidence
over other forms of knowledge and evidence and that research tri-
als are not usually transferable (Janicek, 2006). Health and social
care practitioners need to be aware of the debates surrounding
evidence-based practice both within their own professional group
and more generally in the health and social services.

The successful and rapid emergence of evidence-based practice has
been attributed to the obvious, simple, sensible and rational idea
that the most up-to-date, valid and reliable research should inform
and be the foundation for practice (Melynk and Fineout-Overholt,
2005). The context in which it has developed may go some way to
explain why the movement has been flourishing in many areas of
health and social care practice. In recent years there has been a cul-
tural shift within the health and social services from trusted profes-

sional judgement-based practice to evidence-based practice. Glicken
(2005) and others suggest that there are a number of contributing
factors in the development of evidence-based practice, 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
- an explosion in 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
- major adverse events within the health and social services
- lawsuits and compensation claims.
This cultural shift has resulted in an explosion of evidence-based initiatives and new terminology within the health and social services since the mid-1990s including:

- centres such as Evidence-based Mental Health, Evidence-based Nursing Practice, Research in Practice for Adults, Social Care Institute for Excellence (SCIE)
- specialist ‘evidence-based’ journals
- websites and web-based discussion lists
- electronic bibliographic resources for evidence-based practice.

This has had an effect on how research and evidence are considered and used by current practitioners within health and social care and how evidence and practice drive (and are driven by) practice and policy more than ever before.

Within the health and social services, political ideology plays a role in shaping both policy and practice. This can influence how health and social problems are perceived, problems solved, and services delivered by different professional groups. The professional groups work across organisations more than in the past, and joint working within and between many areas of health and social services means that communication and collaboration need to be effective if patients, clients and service users are to receive the highest quality of care. The development of public health services and the growing shift towards community and primary care have also had a role in the development of evidence-based initiatives. It is reasonable to say that the evidence-based practice movement has had an effect all through the health and social services including practice, policy, management and education, and that it includes all health and social care professionals who make decisions.

**WHAT IS EVIDENCE-BASED PRACTICE?**

There are three key components to evidence-based practice:

1. Best available current evidence.
2. Preferences of individual clients and patients.
3. Expertise and experience of the professional.

All three elements need to be used together, although the importance of each may vary in different situations. The overriding principle is that of giving the most effective care to maximise the quality
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of life for an individual. It should also be noted that evidence-based practice promotes quality and cost-effective outcomes of health care (Schmidt and Brown, 2011).

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 client, or an assessment of causation, or about the most appropriate test, or about the best method for delivering a service.
2. Find the best available evidence that relates to the specific question, usually by making a thorough search of the literature.
3. Appraise the evidence for its validity (closeness to the truth), usefulness (practical application) and methodological rigour.
4. Identify current best evidence and, together with the patient or client’s preferences, apply it to the situation.
5. Evaluate the effect on the patient or client, and the practitioner’s own performance.

Current pre-qualifying education will help students address all these stages. Specifically practitioners need to learn how to search effectively for appropriate evidence and research through a range of literature sources (see Chapter 5), and how to critically appraise research (see all chapters, but particularly Chapter 11 and Appendix 3).

WHAT COUNTS AS EVIDENCE?

There are many debates and arguments across all the health and social care professions about what constitutes evidence. For the purposes of this book, research (defined later) is viewed as one form of evidence amongst many other types. Health and social care professionals should be aware of the debates surrounding types of evidence including research, and in particular hierarchies of evidence. 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 better able than others to provide robust evidence of effectiveness, that is, what works. The most common type of hierarchy (see Table 1.1) places randomised controlled trials (RCTs) at the top of the hierarchy.

Other chapters in this book guide the reader through some of these research designs, and the ‘further reading’ at the end of this chapter points to some useful texts that introduce the debates surrounding types and hierarchies of evidence. Of particular
importance are the debates surrounding the role of experimentation and randomised controlled trials in social care, which, in health, have been seen as the ‘gold standard’ of research design for looking at effectiveness of interventions (see, for example, Davies et al., 2000; Trinder and Reynolds, 2000). As is evident later, hierarchies of evidence of effectiveness are only helpful for considering evidence about whether something works, such as a treatment, therapy or educational programme. Evidence about how clients feel about something, or whether patients are satisfied, or the perspective of different types of practitioners, is best captured by different types of research and evidence that do not particularly feature in any type of hierarchy. Furthermore, as will be seen in Chapter 2, evidence can be based on different types of knowledge, of which some types are more robust and systematic than others.

Table 1.1 *A basic hierarchy of strength of evidence about effectiveness (what works)*

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Evidence from a systematic review of multiple well-designed randomised controlled trials.</td>
</tr>
<tr>
<td>2</td>
<td>Evidence from one or more well-designed randomised trials.</td>
</tr>
<tr>
<td>3</td>
<td>Evidence from trials without randomisation or from single before-and-after studies, cohort, time series or matched case-controlled studies or observational studies.</td>
</tr>
<tr>
<td>4</td>
<td>Evidence from well-designed descriptive studies or qualitative research.</td>
</tr>
<tr>
<td>5</td>
<td>Opinions from expert committees or formal consensus methods such as the National Institute for Health and Care Excellence (<a href="http://www.nice.org.uk">www.nice.org.uk</a>).</td>
</tr>
<tr>
<td>6</td>
<td>Expert opinion.</td>
</tr>
</tbody>
</table>

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

The importance of nursing research for evidence-based practice has been reiterated in the recent Francis Inquiry (2013). The inquiry reviewed the care delivered at one NHS hospital and reinforced the need for National Institute for Health and Care Excellence (formerly known as the National Institute for Clinical Excellence) (NICE) evidence to inform evidence-based procedures and practices. In addition, it made a number of recommendations to improve care delivery including better complaints procedures and the need for improvements in supporting patient safety. Research evidence is used in the development of NICE guidance (www.nice.org.uk) which relates to a number of areas of clinical practice. The guidance is used to guide the delivery of up-to-date care and best practice and has the potential to reduce unnecessary costs and aid decision-making.
DEFINITIONS OF RESEARCH

There are many ways of defining research, ranging from very broad to narrow interpretations that often reflect the perspective of those undertaking the research. For example, the Department of Health (DH) defines research as ‘the attempt to derive generalisable new knowledge by addressing clearly defined questions with systematic and rigorous methods’ (DH, 2005: 3). This definition reflects a concern to undertake systematic and rigorous research to generate findings that can be used beyond the immediate area of research; in other words, that can be generalised. The focus on a systematic approach to research is one of the common elements seen in a range of research definitions. Most definitions of research include at least one of the following dimensions:

- a systematic approach to the enquiry
- a focus on developing existing or creating new knowledge
- activities that are planned and logical
- a search for an answer to a question.

Additionally, definitions may refer to the multidisciplinary nature of research and the need to use different research approaches. The scope of research can also be included in the definition, making reference to the generation of knowledge for practice, education and policy.

The definition of research provided in the first edition of this book remains relevant today:

a systematic approach to gathering information for the purposes of answering questions and solving problems in the pursuit of creating new knowledge about health and social care.

This definition is broad in order to encompass all aspects of health and social care and it recognises the systematic nature of collecting data. In addition, the active, practical and applied nature of health and social care practice is considered. In order to distinguish research from audit, service improvement and development work, which are closely related, research is defined as creating new knowledge.

No single definition will be satisfactory, however, and in order to be able to understand research at an introductory level, it was felt that a working definition might be helpful. Chapter 2 considers how the research and evidence used in decision-making by practitioners is informed by different types of knowledge available to the practitioners.
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RESEARCH FUNDING IN HEALTH AND SOCIAL CARE

The funding of health and social care research is driven by economic, political and organisational factors (Moule and Goodman, 2014). Research activity is expensive and is influenced by funding priorities. In the United Kingdom the NHS Research and Development strategy aims to maximise the benefits of scientific research for health. As part of the strategy, research and development offices were set up across the UK. They are funded by, and responsible to, the government for identifying NHS research needs and commissioning research to meet these needs. The National Institute for Health Research (NIHR) commissions and funds NHS, social care and public health research in order to develop research evidence to support professionals, policy makers and patients. Evidence is disseminated through NHS Evidence (www.evidence.nhs.uk) and through NICE. The translation of research into practice is also the role of the Academic Health Science Networks (www.england.nhs.uk). Their goal is to improve patient and population health outcomes by networking across health care providers, industry and academia to support collaborative working that will enable rapid evaluation and adoption of research and innovation.

Other major funders include charities, such as the Wellcome Trust (www.wellcome.ac.uk) who fund biomedical and human research, and funding councils such as the Economic and Social Research Council (www.esrc.ac.uk), the UK’s leading agency for research funding in economic and social sciences. Health care staff are often part of teams who bid for funds from a wide range of charities and other funders; however, the application processes are highly competitive and success rates can be low.

KEY POINTS

- All health and social care practitioners need to become ‘research literate’.
- ‘Research literacy’ includes the skills and knowledge to appreciate, understand and use research.
- Not all health and social care practitioners should be conducting research as part of their daily work or professional development.

(Continued)
Health and social care practitioners need to consider the tensions and conflict associated with the concept of evidence-based practice.

There are many definitions of research, with most incorporating a view about the search for knowledge through a systematic and rigorous process.

Health and social care practitioners need to become critical consumers of research to enable them to provide excellence in care.

Health and social care practitioners need to be aware that research takes place within a broad political and financial context.

FURTHER READING


WEBSITES

Centre for Evidence Based Medicine: www.cebm.net
Centre for Reviews and Dissemination: www.york.ac.uk/inst/crd/
Department of Health: www.dh.gov.uk
Economic and Social Research Council: www.esrc.ac.uk
Evidence Based Nursing Practice: www.ebnp.ac.uk
Involve: www.invo.org.uk
NHS Improving Quality: www.nhsiq.nhs.net
UK Clinical Research Collaboration: www.ukcrc.org
Wellcome Trust: www.wellcome.ac.uk