

What counts as evidence in evidence-based practice?

Jo Rycroft-Malone BSc MSc PhD RGN

Senior Research Fellow, Royal College of Nursing Institute, Oxford, Oxfordshire, UK

Kate Seers BSc PhD RGN

Professor and Head of Research, Royal College of Nursing Institute, Oxford, Oxfordshire, UK

Angie Titchen MSc DPhil MCSP

Senior Research & Development Fellow, Royal College of Nursing Institute, Oxford, Oxfordshire, UK

Gill Harvey BNursing PhD RHV RGN DN

Senior Lecturer, Manchester Centre for Healthcare Management, University of Manchester, UK

Alison Kitson BSc DPhil RN FRCN

Executive Director for Nursing, Royal College of Nursing Institute, Oxford, Oxfordshire, UK

Brendan McCormack BSc DPhil PGCEA RGN RMN

Professor and Director, Nursing Research and Practice Development, University of Ulster and Royal Hospitals Trusts, Belfast, Northern Ireland, UK

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Correspondence:

Jo Rycroft-Malone,
Royal College of Nursing Institute,
Radcliffe Infirmary,
Woodstock Road,
Oxford OX2 6HE,
UK.

E-mail: joanne.rycroft-malone@rcn.org.uk

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Background. Considerable financial and philosophical effort has been expended on the evidence-based practice agenda. Whilst few would disagree with the notion of delivering care based on information about what works, there remain significant challenges about what evidence is, and thus how practitioners use it in decision-making in the reality of clinical practice.

Aim. This paper continues the debate about the nature of evidence and argues for the use of a broader evidence base in the implementation of patient-centred care.

Discussion. Against a background of financial constraints, risk reduction, increased managerialism research evidence, and more specifically research about effectiveness, have assumed pre-eminence. However, the practice of effective nursing, which is mediated through the contact and relationship between individual practitioner and patient, can only be achieved by using several sources of evidence. This paper outlines the potential contribution of four types of evidence in the delivery of care, namely research, clinical experience, patient experience and information from the local context. Fundamentally, drawing on these four sources of evidence will require the bringing together of two approaches to care: the external, scientific and the internal, intuitive.

Conclusion. Having described the characteristics of a broader evidence base for practice, the challenge remains to ensure that each is as robust as possible, and that they are melded coherently and sensibly in the real time of practice. Some of the ideas presented in this paper challenge more traditional approaches to evidence-based

practice. The delivery of effective, evidence-based patient-centred care will only be realized when a broader definition of what counts as evidence is embraced.

Keywords: evidence-based practice, patient-centred, research, clinical experience, patient experience, nursing

Introduction

'Evidence' may well be one of the most fashionable words in health care. The discourse embraces various permutations including evidence-based practice, evidence-based nursing, evidence-based guidelines, evidence-based decision-making, evidence-based policy-making and evidence-informed patient choice, to name but a few. Whilst the epistemological integrity of such concepts has been questioned (French 2002), considerable effort has been spent on the evidence-based practice agenda both philosophically and financially. Across the world, this is most visible through the substantial investment in infrastructure to increase the likelihood of care being delivered based on evidence of what works. For example, in the United Kingdom (UK) the National Institute for Clinical Excellence (NICE) and the Health Technology Board for Scotland have been set up, in the United States of America (USA) its equivalent is the Agency for Health Care Research and Quality and The National Institute for Clinical Studies in Australia. The message is clear: practitioners should be ensuring that people receive care based on the best possible evidence. Additionally, the political context stresses that care should be delivered in accordance with the needs of individual patients (e.g. Department of Health 1997, 1999). Correspondingly, the move towards patient-centred nursing, based on the principles of humanism and individualism, emphasize the centrality of the patient in the practitioner-patient encounter. Whilst few would disagree with the notion of delivering patient-centred care based on information about what works, there remain significant challenges about what evidence is, and thus how practitioners use it in decision-making in the reality of clinical contexts.

In previous papers (Kitson *et al.* 1998, Rycroft-Malone *et al.* 2002), a conceptual framework was presented that described the many factors influencing the uptake of evidence into practice. Drawing on evidence derived from previous practice development, quality improvement and research projects, the framework attempts to identify the factors involved in implementing evidence-based practice as acknowledged by many authors [Lomas *et al.* 1991, Dawson 1997, Ferlie *et al.* 1998, 1999, National Health Service (NHS) Centre for Reviews and Dissemination 1999, Dopson *et al.* 1999, Grol & Grimshaw 1999]. Part of the on-going

refinement of the framework has involved achieving conceptual clarity about its constituent elements: evidence, context and facilitation. Previous publications have described the findings in relation to 'context' (McCormack *et al.* 2002) and 'facilitation' (Harvey *et al.* 2002); this paper aims to describe the characteristics of 'evidence'. More specifically, it aims to move on the debate, begun by others (e.g. Farrell & Grichting 1997), about the nature of evidence, describe the characteristics of evidence, and consider how different sources of evidence might contribute to patient care.

The nature of evidence

The etymology of the word 'evidence' is rooted in the concept of experience, relating to what is manifest and obvious (Upshur 2001). The Concise Oxford English Dictionary (1984) gives a number of definitions that this derivation:

- clearness, obviousness,
- indication, sign, facts making for a conclusion, in support of,
- information (given personally, or drawn from documents etc.) tending to establish fact,
- serve to indicate, attest.

As this suggests, evidence is a core concept in law. In legal terms, evidence can be used in different ways either to refute or corroborate the issue at hand (Upshur 2001). Thus, an unequivocal understanding of evidence is infrequent. In contrast, in health care the concept of evidence has been interpreted in relation to notions of proof and rationality. A unifying theme in all definitions of evidence is that, however evidence is construed, it needs to be independently observed and verified (Davies *et al.* 2000). This does not presuppose the value of a particular evidence source or study design over another, but instead highlights the importance of ensuring that the evidence used to inform practice (and policy) has been subject to scrutiny.

In order to gain a greater understanding about the nature of evidence in the context of health care, consideration needs to be given to the history of the evidence-based health care movement. Sackett *et al.*'s (1997, p. 2) now famous definition of evidence-based medicine articulated 'the conscientious, explicit and judicious use of current best evidence about the care of individual patients'. Although the debate has been accessible in the literature from the mid-1970s (Toulmin 1976), what was

meant by evidence does not appear to have been discussed more fully until the early 1990s, when evidence-based medicine, and its related offshoots, really took off. In this context, there was a common assumption that evidence was research evidence and, more specifically, research evidence from the quantitative tradition (e.g. Sackett *et al.* 1997). There were, and remain, many clinical problems that pose questions about effectiveness requiring the application of a randomized controlled trial (RCT). This type of evidence assumed pre-eminence as the gold standard. More specifically, evidence from systematic reviews and meta-analyses has taken their place at the top of the hierarchy because it is less likely to provide 'misleading' information about the effect (both therapeutic and financial) of an intervention (Sackett *et al.* 1996, NICE 2001).

Against a background of tightening financial constraints, risk reduction, and professionals trying to maintain status in the face of increased managerialism (Traynor 2002), the promotion of this view of evidence has been powerful; it is significant to the debate about the nature of evidence for a number of reasons. First, research evidence, and more particularly quantitative research evidence, tends to be more highly valued than other sources in the delivery of health services (e.g. Kennedy 2003). As a consequence, there has been a concentration, across all levels of health care delivery, on the importance of getting *research* evidence produced, synthesized, disseminated and used in practice (e.g. Stevens & Ledbetter 2000). The prominence ascribed to research evidence has meant the relative neglect of other forms of evidence in the delivery of health care, in terms of making them available for critical scrutiny and public review. Thus, the potential interaction of research evidence with contextual, individual practitioner and patient variables has been disregarded (Upshur 1999).

More specifically, the practice of nursing is mediated through contacts and relationships between individual practitioners and their patients (Kitson 2002). The centrality of this relationship complements the role of scientific evidence, suggesting that the nature of evidence is broader than evidence derived from research. We propose that 'evidence' in evidence-based practice should be considered to be '*knowledge derived from a variety of sources that has been subjected to testing and has found to be credible*' (Higgs & Jones 2000, p. 311). The rest of this paper explores the potential sources of knowledge that make up the evidence base of clinical practice.

What counts as evidence and in what circumstances?

If evidence is considered to be knowledge derived from a range of sources, what is knowledge? Knowledge has been

defined as 'an awareness or familiarity gained by experience, a person's range of information' (Encarta 1998). Higgs and Titchen (2000) describe knowledge as fundamental to reasoning and decision-making and thus central to professional practice. Broadly, knowledge has been categorized into two types: propositional or codified and non-propositional or personal (Eraut 1985, 2000). Whilst propositional knowledge has gained higher status, in reality the relationship between the two sources is dynamic.

Propositional knowledge is formal, explicit, derived from research and scholarship and concerned with generalisability. Non-propositional knowledge is informal, implicit and derived primarily through practice. It forms part of professional craft knowledge (the tacit knowledge of professionals) and personal knowledge linked to the life experience and cognitive resources that a person brings to the situation to enable them to think and perform (Higgs & Titchen 1995, 2000, Eraut 2000). Unlike research-based knowledge, professional craft knowledge is not usually concerned with transferability beyond the case or particular setting. However, this non-propositional knowledge has the potential to become propositional knowledge once it has been articulated by individual practitioners, then debated, contested and verified through wider communities of practice in the critical social science tradition of theory generation (see Titchen & Ersser 2001). In order to practise evidence-based, person-centred care, practitioners need to draw on and integrate multiple sources of propositional and non-propositional knowledge informed by a variety of evidence bases that have been critically and publicly scrutinized. Furthermore, these processes are not acontextual – the melding of this evidence base occurs within a complex, multi-faceted clinical environment.

The following sections describe the characteristics of knowledge generated from four different types of evidence base available for use in clinical practice. These evidence bases are named according to their source:

- research
- clinical experience
- patients, clients and carers
- local context and environment.

Knowledge from research evidence

As mentioned above, research evidence has assumed priority over other sources of evidence in the delivery of evidence-based health care. Moreover, research evidence tends to be perceived as providing watertight answers to the questions posed. However, such evidence rarely attains absolute certainty and may be changed as new research emerges.

Upshur (2001) suggests that to conflate research evidence with the concept of truth will lead to serious misunderstandings because definitive studies are comparatively rare. He argues, therefore, that research evidence needs to be viewed as provisional, that is, the research evidence base for practice is rarely constant, but rather is evolving.

Paradoxically, whilst the producers of research attempt to attain a level of 'objectivity', the production and use of evidence is a social as well as scientific process (Wood *et al.* 1998a, 1998b, Dopson *et al.* 1999, 2002, Ferlie *et al.* 2000, Stetler 2001). That is, there is no such thing as 'the' evidence. For example, Dopson *et al.* (2002) conducted a cross-case comparison and synthesis of seven evidence-into-practice studies, including 49 cases (involving 1400 interviews). One of the themes to emerge from their secondary analysis was that, even where there were precise clinical topics supposedly capable of scientific testing and proof, in reality there were different bodies of evidence, often competing and capable of engendering different interpretations. Moreover:

there are multiple interpretations by different stakeholders, varying by individuals within one group, by group and by profession. (p. 42)

Thus, research evidence is socially and historically constructed (Wood *et al.* 1998a, 1998b; Higgs & Titchen 1995). It is not certain, acontextual and static, but dynamic and eclectic.

This indicates that, whilst research evidence is important to delivering evidence-based care, it is less certain and less value free than is sometimes acknowledged. This is significant for the implementation of evidence-based, person-centred care. First, simply 'pushing out' research evidence to practitioners is unlikely (on its own) to improve its use in practice. Additionally, as multiple interpretations of research by different stakeholders exist, implementation interventions which include the elicitation and discussion of these issues may be more likely to influence whether or not research is applied in practice. More specifically, there is a need to translate and particularise evidence in order to make sense of it in the context of caring for individual patients. Finally, all these factors highlight that research evidence, although crucial to improving patient care, may not on their own inform practitioners' decision-making (Thompson *et al.* 2001a, Bucknall 2003).

Knowledge from clinical experience

Knowledge accrued through professional practice and life experiences makes up the second part of the jigsaw in the delivery of evidence-based, person-centred care. Eraut (1985, 2000), following Oakeshott (1962), calls this type of evidence 'practical knowledge', Titchen (2000) describes it as 'profes-

sional craft knowledge' or 'practical know-how'. This knowledge is expressed and embedded in practice and is often tacit and intuitive. Not only do practitioners act on their own practical knowledge, but recent research has verified that nurses also draw on the expertise of others to inform their practice (Thompson *et al.* 2001a, 2001b, McCaughan *et al.* 2001), which of course could itself be research-based.

A number of scholars have explored the nature of different ways of knowing and producing knowledge and have substantiated the contribution of different sources of knowledge to practice beyond the technical or propositional (e.g. Carper 1978, Benner 1984, Reason & Heron 1986, Edwards 2002, Hunt *et al.* 2003, Titchen & McGinley 2003). Despite this, we argue here that there is still an underlying assumption in the field and practice of evidence-based health care that such sources of knowledge are idiosyncratic, subject to bias and, as a result, lack credibility. However, we propose that the delivery of individualized evidence-based health care not only *requires* professional craft knowledge and reasoning, but requires such knowledge and reasoning to integrate the four different types of knowledge discussed here within the contextual boundaries of the clinical environment. In order to do this, however, it is essential that clinical experience or tacit knowledge is made explicit in order for it to be disseminated, critiqued and developed. For clinical reasoning to be sharpened and advanced, clinical common sense needs to be evaluated to the same extent as the evidence from trials (Upshur 1997). That is, in order for an individual practitioner's experience and knowledge to be considered credible as a source of evidence, it needs to be explicated, analysed and critiqued. Stetler *et al.* (1998) calls this '*affirmed experience*', which means that experiential observations or information have been reflected upon, externalized, or exposed to explorations of truth and verification from various sources of data.

Methods and processes for articulating and explicating professional craft knowledge are in the early stages of development and testing [e.g. Eraut *et al.* 1998, Titchen 2000, Butler *et al.* 2001, Royal College of Nursing (RCN) 2003, Titchen & McGinley 2003]. Eraut (2000) suggests that there are two possible approaches to tacit knowledge elicitation: to facilitate the 'telling', or to elucidate sufficient information to infer the nature of the knowledge being discussed. Both methods require the construction of 'an account' which, in line with good practice, should be submitted to respondents for verification or modification. Titchen's (2000) work provides an example of an approach to gathering accounts through the observation of practice and subjecting these to critical commentary. She describes a process for

articulating, reviewing, generating and verifying professional craft knowledge based on critical reflection on practice. Through skilled facilitation (see Harvey *et al.* 2002), expert practitioners are helped to surface, articulate and then reflect on their practical knowledge and its melding with other forms of evidence. The aim is to make this knowledge and its blending available for dissemination to a range of other practitioners for comparison, debate and critique; consensual validation and verification could then be sought. However, research to help elucidate how this process might work, with safeguards, checks and balances, needs to be undertaken.

Tacit, experiential forms of knowledge are persuasive and have a reciprocal, reinforcing relationship with 'scientific' evidence or research (e.g. Dopson *et al.* 1999). Research evidence is more powerful when it matches clinical experience; conversely, when research and clinical experience do not match, its use in practice can be variable (Ferlie *et al.* 1999). For example, Ferlie *et al.* report a case study of the uptake of low molecular weight heparin as antithrombotic prophylaxis after elective orthopaedic surgery for hips and knees. Its use in orthopaedic surgery is controversial because the research base about its effectiveness is variable. In Ferlie's study, use of the drug was influenced by the beliefs of a core group of orthopaedic surgeons, whose views were based on experiential knowledge. There was dissonance between the research evidence and clinical experience and as a result the uptake of the new drug was described as 'patchy'. Again this finding serves to highlight that evidence is a social construction. In addition, practitioners, taking the particularity of patient and context into account, may be making the right decision for a particular patient. Conversely, where particularity accords with the research evidence, practitioners may still not use the research evidence. This suggests that improving practice requires more than accessing new knowledge; it requires skills in reasoning to integrate that knowledge into practitioners' existing knowledge frameworks (Higgs & Jones 2000).

Whilst practical know-how is an important source of knowledge that makes up the evidence base of professional practice, it is not tidy or clear cut. Neither is the interaction of practical know-how with research straightforward or linear. Therefore its role in, and contribution to, evidence-based decision-making is only beginning to be revealed and articulated (e.g. Higgs & Jones 2000, Dopson *et al.* 2002, Titchen & McGinley 2003).

Knowledge from patients, clients and carers

The third source of evidence that contributes to clinical practice is the personal knowledge and experience of patients

and clients. Barker (2000), discussing 'caring' in an evidence-based culture, emphasises that 'good practice' cannot be separated from the unpredictable ways in which individuals and their families respond to concepts of health and illness:

The notion that we should – or perhaps even could – base our practice on 'generalisable evidence' demolishes our traditional practice. Such worldviews urge us to swap our ideas of crafting care around the unique complexity of the individual, for a generalisation about what worked for most people in a study. (p. 332)

However, whilst ethically and morally individuals' experiences and preferences should be central components in the practice of evidence-based health care, in reality little is known about the role that individuals play or the contribution their experience makes.

Farrell and Gilbert (1996) make a useful conceptual distinction between *collective* and *individual* involvement in health care. They suggest that collective involvement is about participation of groups or communities in health care planning or service delivery. In contrast, individual involvement concerns individual patients and their encounters with individual practitioners during episodes of care. Here two types of evidence are available and need to be accessed by practitioners: evidence from patients' previous experiences of care, and evidence derived from patients' knowledge of themselves, their bodies and social lives.

In the UK, there are examples of collective involvement in evidence-based practice-related activities. For example, NICE ensures patient and carer representation at board level and also through their collaborating centres during national guideline development. Additionally, The Database of Patients' Experiences (DIPEx) (Herxheimer *et al.* 2000) is an example of how patients' experiences can be linked to research information. In contrast, examples of how individuals are involved in evidence-based interactions with practitioners are fewer. However, evidence-informed patient choice (EIPC) (Entwistle *et al.* 1998, Olszewski & Jones 1998), decision analysis (e.g. Thornton *et al.* 1992, Dowie 1996) and consideration of people's values in assessment of care needs (McCormack 2001b) are three examples of ways in which patients' preferences can be explicitly incorporated into clinical decision-making.

Both EIPC and decision analysis rely on knowledge from the results of RCTs in order to structure formally the decision-making process into options, probabilities and outcomes. Generally, their use as tools for decision-making has been confined to medical practice (e.g. Robinson & Thomson 2000). As Barker (2000) states, whilst technological information is important, this needs to be placed in the context of the world of the person. In order to know the world of the person, it is necessary to find out what their

experience is at that particular time, and what sense and meaning they attach to that experience.

The gathering and incorporation of individuals' values, experiences, and preferences into evidence-based practice is a complex issue. Melding these with other sources of evidence into caring actions requires expertise. Furthermore, the craft of mixing the scientific with the human presents very real challenges, particularly if these do not fit together well. For example, good quality RCT evidence that recommends the use of compression bandaging to treat venous leg ulcers (e.g. Duby *et al.* 1993) may not match a patient's experience of discomfort caused by the bandaging. In this example, the skill and ability of the individual practitioner in eliciting these issues and negotiating the most appropriate course of action would be key to improving patient outcomes. At a more general level, the provisional opinion of NICE's appraisal committee that the modest clinical benefit of beta-interferon appears to be outweighed by its very high cost (National Institute of Clinical Excellence 2000) in the treatment of multiple sclerosis attracted much media attention and public outcry. This was because their judgement did not match individuals' positive experiences of using beta-interferon.

These examples serve to highlight that it is important to acknowledge individuals' values and personal experiences as sources of knowledge that informs the evidence base of practice and subsequently to incorporate this into caring, therapeutic actions.

Knowledge from local context

In addition to knowledge that comes from research, clinical and patient experience, the context of care contains sources of evidence. In the course of improving practice and care practitioners may draw on:

- audit and performance data
- patient stories and narratives
- knowledge about the culture of the organisation and individuals within it
- social and professional networks
- information from 360° feedback, i.e. feedback from the fullest possible constituency of stakeholders
- local and national policy.

(Ward 1997, NICE 2001, RCN 2003, Rycroft-Malone *et al.* 2003, McCormack *et al.* 2002, Stetler *et al.* 1999).

The potential contribution of these types of information has yet to be recognized as part of an evidence base that informs the delivery of evidence-based health care. As such, their credibility and potential use has yet to be fully explored.

Stetler (2003) has described this evidence source as 'internal evidence'. She suggests that it comes primarily from

systematically but locally obtained information, including data from local performance, planning, quality, outcome and evaluation activity. Thus, for example, audit data (that have been collected appropriately and systematically) have the potential to be valued as a source of evidence with which to inform the development of evidence-based patient care (e.g. Auplish 1997, Gladstone & Sutherland 1997). The quality collaboratives that have been adopted as the primary vehicle for improving the quality of service delivery in the USA, UK and Australian health services (e.g. Overtveit *et al.* 2002) provide a further example of how locally-collected evaluation data can be used to inform practice changes. Through the Plan, Do, Study, Act cycle (Langly *et al.* 1997), local data are collected and acted upon in the course of rapid cycles of change. In contrast, Stetler *et al.* (1998) describe an evidence-based framework for the nursing division of a medical centre. They report how, in addition to the identification and collection of research data and 'affirmed experience' through story telling, time was also invested in the systematic collection of performance data. In this example, they collected data about the practice of primary nursing and involved nurses in the review of an existing health screening tool being used in practice. These data were then integrated into the framework for changing and improving practice.

Whilst locally available data clearly have a role to play in the development of evidence-based patient care, more needs to be understood about how they are systematically collected and appraised, how they are integrated with other kinds of evidence, and how such data inform individual clinical decision-making.

Melding the evidence base – issues and challenges

Sackett *et al.* (1997) set the co-ordinates for how 'evidence' in evidence-based practice has been defined, namely as research used in the context of practitioners' clinical experience and patients' preferences. In reality, the focus of attention and investment, politically and thus financially, has been on understanding and generating *research* evidence about effectiveness. Arguably, the concentration on this kind of propositional knowledge, whilst important, has been at the expense of gaining a better understanding of other types of evidence used in the delivery of health care. Research evidence demonstrates that nurses, in line with other practitioners, draw on a diversity of information sources to inform their decision-making, including propositional and non-propositional knowledge. However, the ways in which research evidence interacts with clinical experience, contextual factors and patients' experiences and preferences has been largely neglected. The impetus behind the development of

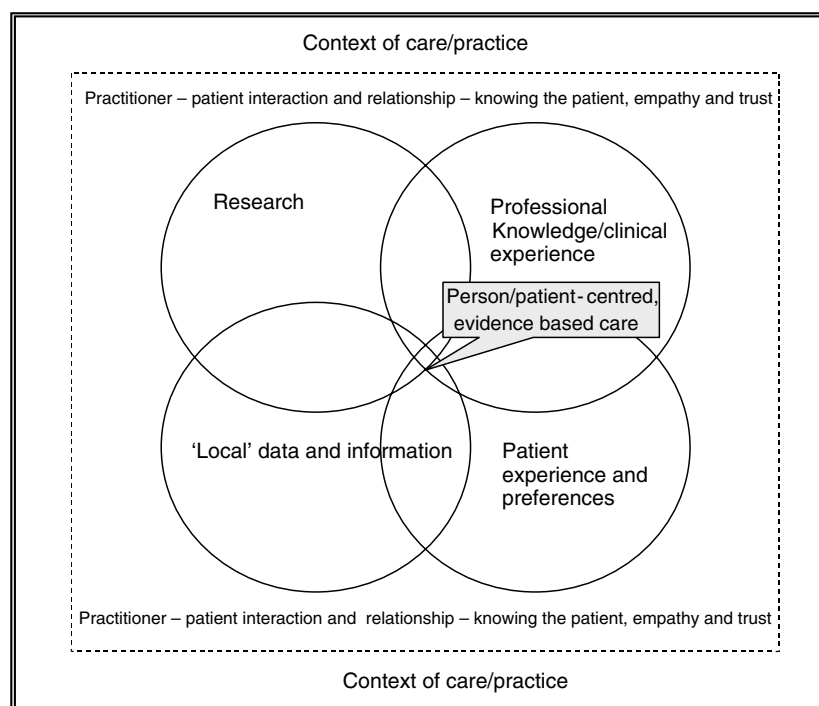


Figure 1 Four sources of evidence for patient-centred, evidence-based practice.

evidence-based care has been to shift from the non-scientific to the scientific. This is founded on a concern that care will be delivered neither appropriately nor effectively without the foundation of suitable research because non-scientific information is uncontrolled, anecdotal and subject to bias. These are reasonable concerns, and care that ignores research findings can lead to poor outcomes (e.g. Thompson *et al.* 2001a). However, there is a growing body of research indicating that not only clinicians, but also patients and families, require more than propositional or technical knowledge in order to make decisions about treatment and care (e.g. Latter *et al.* 2000, McCormack 2001a, 2001b, Edwards 2002, Titchen & McGinley 2003, Gibson 2003, Hunt *et al.* 2003). Thus, what may be required is the development of a process that seeks to develop and use the broader evidence base illustrated in Figure 1. This will require an interaction of the scientific with the experiential. This will not be without difficulties, because methods and processes suitable and valued by one school of thought may not, at first sight, be easily transferable or acceptable to the other.

The challenge is to ensure that each type of evidence is as robust as possible, whilst also ensuring that individualized care is delivered. For research evidence, this could mean it conforms to the preagreed standards for rigour and trustworthiness. Agreed standards for determining whether research evidence is appropriate and useful for a particular patient/context and how it can be used have yet to be

developed. This would require investigation of how expert practitioners make these decisions and use such evidence.

In order to move away from anecdote, robustness of professional knowledge can be established by gathering evidence from multiple sources for verification (e.g. RCN 2003). More specifically for clinical experience, a systematic and documented process of gathering evidence of the different types of knowledge used in everyday practice, and their impact on patients, colleagues and the organization, in combination with reflection and cross-checking, may be appropriate. Cross-checking could occur in ever-widening ripples from individual practitioners' clinical supervision, 360° feedback or action learning, progressing to, for example, colloquia, seminars, debates, consensus workshops within their immediate, then regional, national and international communities of practice. This critical social science approach to generating potentially transferable knowledge would provide systematically collected bodies of knowledge whose credibility have been tested, which other practitioners can draw on. However, this suggestion does not exclude the need to exercise clinical judgement when caring for individuals during clinical encounters. There will always be a need to particularize and tailor these evidence sources to individual circumstances.

There are two types of usable patient evidence. The first is specific to the practitioner-patient encounter, which involves skilfully accessing the patient's experience, knowledge and preferences in relation to that particular episode of care. Second,

What is already known about this topic

- Nurses are encouraged or even required to use evidence in their practice, but generally evidence is interpreted as research.
- In reality, practitioners draw on multiple sources of knowledge in the course of their practice and interactions with patients, yet this is rarely acknowledged or debated.

What this paper adds

- Continuation of the debate about the nature of knowledge and contribution that different types of evidence make to patient care.
- An exploration of the characteristics of the different types of evidence.
- Ways are suggested of assessing the robustness and blending of these different types.

there is the potential to access, collect and build up composite patient stories. These could then be used as a resource for clinical supervision, practice, education and policy-making, and indeed by patients themselves as evidence resources.

Finally, for the propositional knowledge derived from the local context, internal evidence should be scrutinized to check whether it has been systematically collected from multiple sources, whether ethical principles have been adhered to in its collection, analysis and interpretation and whether its analysis has been systematic and verified.

How these evidence sources are melded together in the real-time of clinical decision-making is still virtually unknown, although Titchen's (2000) research suggests that it occurs through a form of professional artistry including critical appreciation, synchronicity, balance and interplay. As we are not entirely clear how this occurs, we also do not know how best it could be facilitated. At present, strategies and tools are being developed to enable practitioners to identify what evidence they are using, how they blend it and what is available for use (e.g. RCN 2003, Titchen & McGinley 2003). In explicating this evidence, practitioners are encouraged to see how they could use different sources of evidence more effectively and then evaluate its impact. Further investigation is needed to test the strategies and tools more widely.

Conclusion

Just as the 'quantitative versus qualitative' debate has become sterile, with the focus now on using whatever approach(es)

are relevant to the clinical problem and resultant research question, so perhaps the time has also come to acknowledge fully the sources of evidence we use and need to make clinical decisions. In this paper, we have described the characteristics of a broader evidence base for practice. Drawing on research and scholarship, we have shown how evidence from clinical practice can be subjected to critical and public review both for verification at the individual level and potential transferability to other settings. These suggestions do not conform with traditional notions of rigour and robust evidence; rather they conform to rigour within critical social science. Further work is required to explore whether composite patient stories and local knowledge could be scrutinised in similar ways.

Finally, combining sources of evidence is happening in practice and understanding how this melding can be facilitated and done with rigour in health care contexts are the real challenges. Our framework for patient-centred, evidence-based care now needs to be tested through rigorous empirical research.

Author contributions

All listed authors have contributed directly to this paper. JRM, KS and AT were responsible for drafting the manuscript and all authors carried out critical revisions of the paper for content.

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