# 1
# Managing Knowledge in Health Visiting

**Kate Robinson**

*University of Bedfordshire, Luton, UK*

## Introduction

The mantra of evidence-based practice is now heard everywhere in healthcare. This chapter will explore what it might mean, both theoretically and in the context of everyday health visiting practice. Is it a way of enhancing the effectiveness of practice or yet another part of the new managerialism of guidelines, targets, and effectiveness? Why might evidence-based practice be an important ideal? Arguably, when a practitioner intervenes in a client's life the outcome should be that the client is significantly advantaged. In health visiting that advantage could take many forms – the client could have more and better knowledge, they might feel more capable of managing their affairs, they might better understand and cope with difficult thoughts, feelings and actions – the list is extensive and later chapters will detail the ways in which health visiting can lead to better outcomes for clients and communities. However, the proposition that there should be an advantage derived from the practitioner's intervention is particularly important in the context of a state financed – i.e. taxpayer funded – healthcare system. If an individual wishes to spend their money on treatments or therapies of dubious or unexplored value offered by unregulated practitioners, then that is entirely a matter for them, provided that they have not been mislead or missold! However, when the state decides to invest its resources in the development of a particular service and associated interventions then arguably there has to be some level of evidence or collective informed agreement which gives confidence that the choice is justified. In addition, of course, all health visitors must be able to account for what she/he does and doesn't do to the Nursing and Midwifery Council (NMC), if required.

Chapter 6 explores how health visiting might be assessed, measured and evaluated. Here the emphasis is on how we choose, individually or collectively, to develop particular services and perform particular actions which we know with some degree of certainty should lead to better outcomes for the client. But how do we know things with any certainty? How can we define the knowledge we need to make good choices? Although there are very many different ways of categorising or describing forms of knowledge, for our purpose here it will be sufficient to make some simple distinctions. First, knowledge can be categorised by type. For example, Carper's (1978) categorisation of knowledge as empirical (largely derived from science), aesthetic (or artistic), ethical and personal, is well known and used in nursing. Or we might categorise it by source and ask where it comes from – books, journals, other people, personal experience, etc.? Or we might use the simple but important distinction between knowing *that* and knowing *how* (McKenna *et al*., 1999). For example, I can know that swimming pools are places people go to and engage in swimming and other water sports, although I need not have experienced it; I can only say I know how to swim if I can do it. In the case of the former I can probably explain how I came by that knowledge but in the case of the latter, I may not be able to explain how I know how to swim or what I am doing when swimming, but the knowledge statement *I know how to swim* is dispositional: its truth is determined by my ability to swim. Such 'knowing how' knowledge is sometimes called tacit knowledge, in contrast to explicit knowledge or knowing that. Our concern here is less about how theoretically you might define knowledge – that's really a question for philosophers – but about the question of what sort of knowledge *should* health visitors be using – and who says so – and what sort of knowledge *are* they using. You will not be surprised to know that there is substantial controversy as various factions argue that *their* type or source of knowledge is the most important. And the outcome of what might be argued to be a fight to define the 'proper' knowledge basis for practice is important as it has the potential to impinge directly on the health and safety of the client as well as the degree to which health visiting can be said to 'add value' to clients.

In later sections of this chapter we will look more closely at evidence-based practice, which is currently the dominant knowledge protocol in the NHS, and try to establish what forms of knowledge it valorises and why. The chapter will also look at reflective practice, an alternative protocol for generating and managing knowledge about practice which is supported by many institutions and individuals within nursing, and also the idea of knowledge being generated and managed within communities of practice, an idea which is currently more popular in education and some other public sector service organisations. Each of these can be viewed as a social movement with enthusiastic supporters trying to 'capture' the support of key health organisations and institutions, as well as the hearts and minds of individual practitioners. And we will also look at what is known about the types and sources of knowledge which healthcare practitioners actually use in practice – which proves to be somewhat different from any of the 'ideals' promoted by these social movements.

But before examining any of these 'ideal' types of knowledge management it will be useful to remind ourselves about the practice of health visiting. For evidence-based health visiting or reflective health visiting or any other imported concept to be a reality it must be integrated into the taken-for-granted, existing ways in which health visitors go about their business.

## Defining health visiting practice

The review of health visiting, *Facing the Future* (Department of Health (DH), 2007), aims to highlight key areas of health visiting practice and skills. It is interesting to note that this is not a research-based document – and makes no claims to be, although there are some references to research. Rather, 'this review is informed by evidence, government policy and the views of many stakeholders' (DH, 2007: section 1). The decisions about what health visiting should be about are therefore largely presented as decisions for the community of stakeholders in the context of stated government priorities. Key elements of the decision-making process can be seen as pragmatic and commonsensical – in the best sense. For example, the review argues that the health visiting service should be one which someone will commission, i.e. pay for; it needs to be a supported by families and communities, i.e. is acceptable to the users of the service; and it needs to be attractive enough to secure a succession of new entrants, i.e. there will be a workforce of sufficient size and ability.

In terms of the future skills of health visitors, the review is clear that they will be expected to be able to translate evidence into practice – although it is less specific about what sort of evidence will count and how the process will be managed. However, at the national level it recommended that the relevant research findings to support a twenty-first-century child and family health service must be assembled. There is also some indication that future practice will be guided by clear protocols, 'Inconsistent service provision with individual interpretation' will be replaced by 'Planned, systematic and/or licensed programmes' (DH 2007: recommendation 8). As we shall see, the reduction in variations in practice is one of the key aims of the evidence-based practice movement. In terms of evidence underpinning practice, the document also draws specific attention to the expanding knowledge base in mental health promotion, the neurological development of young children, the effectiveness of early intervention and parenting programmes and health visiting. Clearly this is a very broad base of evidence derived from a range of academic and practice disciplines.

So, while the review (DH, 2007) is not about the evidence or knowledge base of health visiting and how it might be used, many of the relevant themes in debates about evidence-based practice begin to emerge, for example:

- What is the role of the practitioner in assembling and assessing evidence?
- How can evidence be translated into practice?
- What counts as evidence?
- How can other bodies support the practitioner by generating and assembling evidence?

- How can any practitioner be conversant with developing knowledge bases in a wide variety of other disciplines?
- What will be the role of protocols, guidelines and 'recipes' for practice?

A previous document on health visiting, the *Health Visiting Practice Development Resource Pack* (DH, 2001) raised similar issues, but perhaps gave more emphasise to the importance of evidence-based practice. It drew attention to national statements of 'good' practice such as the National Service Frameworks and suggested that health visitors should 'read widely, keep up to date and engage in debates about what does and doesn't work' (DH, 2001: 34). However, it is relatively silent on the debates and controversies surrounding evidence-based practice, which impinge directly on the possibility and effectiveness of individual practitioners relying on reading to keep up to date in the midst of an exploding healthcare literature.

## What do health visitors do – and where do they do it?

However, before we examine how evidence can and should be used in health visiting practice it is important to consider the actual practice of health visiting; that is, what health visitors do on a day to day basis. Unfortunately, relatively little is known – other than by those who do it – about the realities of everyday health visiting practice. That such practice is rarely seen as a valid subject either for scientific research or practice narratives, is well expressed in a very exciting article about social work (Ferguson, 2010). He argues that current research is focused on systems and interprofessional communication, which: 'leaves largely unaddressed practitioners' experiences of the work they have to do that goes on beyond the office, on the street and in doing the home visit,' (Ferguson, 2010: 1100).

In his work he is trying to refocus on actual practice and further argues:

> Reclaiming this lost experience of movement, adventure, atmosphere and emotion is an important step in developing better understandings of what social workers can do, the risks and limits to their achievements, and provides for deeper learning about the skilled performances and successes that routinely go on.
>
> (Ferguson, 2010: 1102)

Of course, this is just as true for health visiting where a significant part of the practice is leaving the office, driving to the client, thinking about how the visit will work, knocking on the door, and so on. Ferguson's account of the excitement and fear of walking through disadvantaged neighbourhoods and of managing to negotiate home visits with disobliging clients is focused on social workers working in child protection, but it must resonate with all practising health visitors.

So how would the ever-useful sociological Martians describe health visiting practice? They would be bound to notice that health visiting practice is largely about doing things with words. Note the emphasis on *doing*; talk isn't just something which surrounds the doing, it *is* the doing – praising, blaming, asking, advising, persuading – every utterance is an action produced for a purpose, although the speaker is rarely consciously aware of this at the granular level. The skills involved in talking are so deep that, just like walking, they are not normally subject to constant on-going analysis. Most of us do not consciously think about how to walk – we just do it. But talk is the health visitors' key performative skill, and because doing things with talk is a primary skill, health visitors need a more profound under-standing of how it works – just as a ballet dancer would need a more profound understanding of how her body works than the person taking the dog for a walk. Of course, as well as talking, health visitors also make notes and write reports but text is still doing things with language in order to interact with others, just like talk.

In the 1980s there was considerable interest within sociology in researching how interactions, largely based on talk, could constitute various forms of institutional practice. This idea was rather neatly defined in an edited volume of studies called 'Talk at Work'. The editors argue:

> that talk-in-interaction is the principal means through which lay persons pursue various practical goals and the central medium through which the daily working activities of many professionals and organisational representa-tives are conducted.

> (Drew & Heritage, 1992: 3)

Health visiting is one such profession and organisation. Within health visiting, the collection of audiotaped practice has allowed analysis of actual rather than reported practice. Both Robinson (1986) and Heritage and Sefi (1992) recorded the ostensibly 'private' world of health visiting in client homes (at the time it was considered that video recording home visits would be too intrusive, but subse-quent work by Lomax and Robinson (1998) within midwifery showed that it was acceptable to practitioners and clients). Their analyses variously looked at entry and exit, topic initiation and story telling (Robinson, 1986) and the giving and receiving of advice (Heritage & Sefi, 1992) but the point to be made here is that the recordings showed that the visits are recognisable as relatively lengthy conversa-tions with both the health visitor and client contributing. The key feature of any conversation is that each party 'takes a turn' and allows the others to do so. It is interesting to note that turn-taking is such a fundamental human skill that it is exhibited by very young babies and is one of the last skills to be lost by people with dementia – the ability to turn take is far deeper than the knowledge of the mean-ing of words. While the observation that health visitors and clients hold a conver-sation may seem obvious, contrast this with the rather more regulated style of client–GP interactions in the GP surgery (Heath, 1986) or the way in which class-room teachers may take extended turns and control how and whether pupils can

speak (Delamont, 1976). Elements of the conversation could be typical of a non-professional conversation:

Mother (M):   My two little cousins there they were dying to see her weren't they
              and they were sort of hold[ing her          [disturbing her
HV:           Mmm
Father (F):   [Five minutes each
M:            [Yeah
HV:           Oh you've got it down. Yes well done. Yes
M:            And um then it was a bit embarrassing that has to be said as dad says
              dad said it isn't sort of worse um going out of the room to do it
HV:           Um …

<div align="right">(Robinson, 1986: 107)</div>

However, analysis of the relative distribution of the talk, and in particular the right to initiate and close down talk, showed how the health visitors use the framework of the conversation to achieve certain goals, thus turning it into a professional conversation. For example, extracts from Robinson's data showed how a different style could be introduced by the health visitor.

HV:   How are you feeding her
M:    Breast
HV:   And everything's all right. You're comfortable
M:    Yes
HV:   Lovely. Aren't you going to be a lovely mum
HV:   Yes. You're not on the phone here in the cottage are you
M:    (unclear response)
HV:   It's all right the first visit that I um just to go through the routine (…) things
      which I know mainly from what you've told me anyway which is um just to see
      what the labour's like um just to fill in these little bits …

<div align="right">(Robinson, 1986: 99)</div>

Here the health visitor imposes an interrogatory form on the interaction but, interestingly, feels that it requires an explanation 'It's all right …' because it breaches the conversational norm. However, other extracts show how the client need not follow the lead of the health visitor. The health visitors used the devices of making polite but inconsequential remarks about the baby (or occasionally the family pet) and not taking their turn to speak (the figures in brackets are seconds of silence and in conversational talk prolonged silence is unusual and noticeable) to try to encourage the mother to initiate talk about topics of importance to her, but it rarely worked and the health visitors had to fall back on their list of potential problems:

## Example 1

HV:   … except it won't be Christmas day. (2.5) She's blowing raspberries (laughs)
F:    She's found herself already.
HV:   Has she (1.5) She's very alert isn't she. She's following round. (5.0) Lovely
      any rashes or anything anywhere

## Example 2

HV: Yes hello. You are having a good look round. (3.0) Yes. Did you get sore having to feed her nonstop (0.5) yesterday morning.

## Example 3

HV: … One day you'll look for it and find it's not there. Yes. Anyway you're beautiful aren't you. (3.5) Is she good for you at night.

(Robinson, 1986: 88, 91)

*Note*: in all cases the transcription has been simplified from the original. Each example refers to individual clients. It is useful for health visitors to consider their own interactions with clients and this is further explored in Activity 1.1 (see Appendix 1 at the end of the chapter).

The argument here is not that any of the talk is 'good' or 'bad'. The important point is that it shows how complex it is to use talk as a primary practice vehicle. Health visitors' common-sense knowledge of talk is fundamental to their practice but it is rarely fully acknowledged as a knowledge requirement for practice. Moreover, it could be argued that the relatively recent enthusiasm in many healthcare curricula for teaching 'communication skills' often fails to deal with the richness and complexity of institutional language use, especially in venues outside the formal control of the health system.

The above examples are samples of actual health visiting practice and provide evidence of the realities of practice within private homes in the context of mothers with new babies. They are evidence *about* health visiting. The fact that health visitors practise within people's homes is a significant defining characteristic of their work. While the issue of locality underpins all healthcare encounters, the home visit brings to the fore questions of the status of the home and the control of that space. Robinson (1986) showed how, in her sample, health visitors (rather than clients) managed both entry to and exit from the clients' homes. However, Luker and Chalmers (1990), using accounts of practice by health visitors, showed how the practitioners saw negotiating entry as problematic and occasionally difficult as can be seen in these extracts from respondents:

The first time I went the older child was about four and I didn't actually get into the house because she met me coming up the garden path … she said 'we'd had no problems at all and I don't think I need a health visitor' …

I knocked on the door on the 11th day and said 'hello, I'm the health visitor' and she sort of left me on the door step …

(Luker & Chalmers, 1990: 76)

Health visitors also work in clinics, general practitioner (GP) surgeries, children's centres, church halls, social services departments, etc. So a further defining characteristic of health visiting is that it does not have a fixed locality or place of work. There is an interesting literature on the issue of place in healthcare (see, for example, Angus *et al*., 2005; Poland *et al*., 2005) and of course it relates to the issue of mobility which is central to Ferguson's (2010)

work cited above. Poland *et al*. (2005) argue that, while practitioners are sensitive to issues of place, this has largely been ignored in debates about best practice and evidence-based practice. He argues that:

Interventions wither or thrive based on complex interactions between key personalities, circumstances and coincidences … A detailed analysis of the setting … can help practitioners skilfully anticipate and navigate potentially murky waters filled with hidden obstacles.

(Poland *et al*., 2005: 171)

By 'place' Poland *et al*. (2005) mean a great deal more than mere geography. The concept includes a range of issues, notably the way power relationships are constructed and the way in which technologies operate in and on various places. Alaszewski (2006) draws our attention to the risk involved in practising outside 'the institution'. While there are ways in which physical institutions mitigate the risks from their clientele, it is different outside the institution:

The institutional structure of classification, surveillance and control is significantly changed in the community. Much of the activity takes place within spaces that are not designed or controlled by professionals, for example the service user's own home.

(Alaszewski, 2006: 4)

The accounts above show that everyday health visiting practice is not a simple enterprise. It is not always conducted in premises controlled by the state nor can health visitors wholly control the responses of clients. Indeed, the fact that health visitors themselves need to locate their clients sets the occupation apart from much of adult and children's nursing and places it alongside occupations such as social work and mental health nursing. So how can the concepts of knowledge management such as that of evidence-based practice fit into the everyday realities of health visiting practice – if at all? Or are there better ways for health visitors to manage their knowledge? First, what is evidence-based practice?

## Evidence-based medicine

What has come to be known as evidence-based practice had its foundations in the evidence-based medicine (EBM) movement which started in the United Kingdom (UK) in the early 1990s. There was increasing dissatisfaction among some key individuals in the medical profession, notably (Dr (now Sir) Muir Gray, who was an NHS Regional Director of Research and Development) that, within medicine, treatments which had been proven to be effective were not being used. Similarly, treatments which had been shown to have no or little beneficial effect continued to be used despite considerable efforts to change practice. For example, the GRIPP project (Getting Research into Practice and Purchasing), which was developed in the Oxford NHS Region, looked at four treatments:

- the use of corticosteroids in preterm delivery;
- the management of services for stroke patients;
- the use of dilation and curettage (D&C) for dysfunctional uterine bleeding;
- insertion of grommets for children with glue ear.

Activity 1.2 (see Appendix 1 at the end of the chapter) enables further exploration of the evidence around interventions which health visitors deliver.

Good research evidence was available to underpin decisions in all these areas of practice and health authorities within the Oxford Region sought to ensure that practice adhered to the research-based recommendations. However, variations in practice proved difficult to eradicate and it was felt that more needed to be done. Did the practitioners not understand the research? Did they need motivating to change from their traditional ways of practice? Perhaps a more widespread and coordinated effort to base practice on research needed to be developed.

The fundamental proposition of the subsequent EBM movement was that practice should take account of the latest and best research generated evidence to underpin both individual clinical decision-making and collective policy-making. At its heart is the idea that EBM provides a vehicle by which the practitioner can continually examine and improve their individual practice by testing it against scientifically validated external evidence and importing proven treatments. Sackett *et al*. (1997) define EBM as consisting of five sequential steps:

- identifying the need for information and formulating a question;
- tracking down the best possible source of evidence to answer that question;
- evaluating it for validity and clinical applicability;
- applying it in practice;
- evaluating the outcomes.

So, for example, a doctor, faced with a patient with a severe infection, might ask 'which antibiotic will best cure this infection?' and look to the literature on drug trials to provide an answer. Thereafter they would evaluate the validity of the trial and its relevance to their patient, administer the drug (or not) and see what happened. Or, to use one of the examples from the GRIPP project, the doctor treating a child with 'glue ear' might ask 'will surgery to insert grommets make a difference in the long term compared with conservative treatment?' A search of the literature would indicate that surgery to insert grommets is not necessarily cost-effective in the long run in terms of outcome. But this example illustrates the complexity that the rational model of EBM does not necessarily deal with. At the point that the doctor opts for conservative treatment, what message is conveyed to the parent with a child who has suddenly gone deaf and who is losing speech (and friends at playgroup)? The research evidence on cost-effectiveness may not fully acknowledge the social issues surrounding the clinical problem. Evidence-based medicine is essentially a linear model for change which assumes that clinicians should make rational choices based on the scientific evidence available to them. It does not necessarily take into account the choices which clients make which might be

equally rational for them. Activity 1.3 (see Appendix 1) will be helpful in gaining some experience in the practice of EBM.

Evidence-based medicine defines the best source of evidence as the randomised control trial (RCT), or better still a group of RCTs, which can then be systematically reviewed and analysed. Early on in EBM the idea was that clinicians would get involved in all the stages of this process, including the search for and evaluation of the evidence, and there were – and are – various manuals and training programmes to help them do that. In practice, a cadre of specialist and largely university based 'experts' has grown up to manage the searching for and evaluation of the scientific evidence and produce specifica- tions for practice which are then disseminated through various fora. These specifications for practice are known by a number of names, including clinical guidelines, care pathways, etc. and their use will be explored later in the chapter. The degree to which any specification will constitute a suggestion or an instruction to practitioners may largely depend on the importance of the topic and the costs of that area of practice.

As we shall see below, the EBM movement has been, and continues to be, subject to considerable debate and criticism. However, there is a danger that it is criticised for ideas which it does not wholly espouse. First, the enthusiasts did not suppose that the use of research evidence would entirely override clinical judgement but rather that it would work in conjunction with it:

> External clinical evidence can inform, but can never replace, individual clinical expertise and it is this expertise that decides whether the external evidence applies to the individual patient at all and, if so, how it should be integrated into a clinical decision.
>
> (Sackett *et al.*, 1997: 4)

Second, while it is true that a hierarchy of evidence was proposed, which placed that derived from RCTs at the top as the 'gold standard', it did not assert that other forms of evidence were not of some value and neither did it entirely ignore evidence derived from qualitative research (Glaszious *et al.*, 2004). However, while this might express the views of the founders, some followers may be more zealous in promoting the 'gold standard' of the RCT.

Early evidence-based medicine was an enthusiasts' movement. Subsequently a whole industry has grown up around these early beginnings and it is now central to government health policy and is spreading into other occupations. So who is supporting the development of EBM and its promotion in new disciplines such as nursing, social work and education – and why? First, there is a lobby from researchers. After all, if no-one uses their work then why should government continue to fund it? Healthcare research is now a substantial industry forming a significant part of many university budgets. New journals have sprung up to explore the issues and, of course, publication is the lifeblood of academics. Gerrish (2003), citing Estabrooks (1998), argues that EBM has generated a shift in power and prestige in healthcare from experienced expert clinicians to researchers.

Second, there is the government which is increasingly committed to the development of evidence-based policy-making in many spheres but certainly in health. It has established a range of organisations to support evidence-based medicine and funds research which is designed to feed directly into practice. The organisations include the Cochrane Collaboration which exists to produce systematic reviews, within England, the National Institute for Health and Clinical Excellence (NICE) and in Scotland the Scottish Intercollegiate Guidelines Network (SIGN), as well as a number of university based units dedicated to supporting EBM. And within its research programme there has been an increased emphasis on 'impact' as well as validity, reliability, etc. The Research for Patient Benefit (RfPB) programme was explicitly established within the National Institute for Health Research (NIHR) programme to sponsor 'near practice' research, that is research that can be easily applied to practice. There was some initial concern that the projects would be focused on hospital care but the results of the first three funding rounds showed that this was not the case and studies in public health were well represented. Another important characteristic of these projects is that user and practitioner involvement was built in from the start – this programme is clearly trying to get out of the 'ivory tower' and engage in real-life problems. Nevertheless, despite the intentions, it is too soon to know whether such projects make implementation in practice any easier. Activity 1.4 (see Appendix 1) will help you to explore elements of effective health visiting practice.

Third, although there was and is some concern within medicine that EBM would erode the importance of clinical judgement, in professions such as nursing the idea of developing a strong formal and recognised evidence base was seductive. Some decades ago the theory that a profession needed to have certain characteristics became popular in occupations such as nursing, social work and teaching. And while the theory itself was deeply flawed as it largely ignored issues of power and prestige based on class and gender, it did inspire a section of nursing to fight for an independent regulatory body – now the Nursing and Midwifery Council (NMC) – and for graduate entry to the occupation which has now been realised with the 2010 change in NMC regulations. This professionalising agenda has extended to a belief that a 'proper' profession would have – and use – an extensive evidence base from research, that is, it should aspire to be an 'evidence-based' profession. Consequently, some nursing constituencies have vigorously championed the development of nursing research and nursing's inclusion in multidisciplinary research – and indeed there has been a very rapid expansion of nursing research, although much of it remains small scale and relatively little of it uses RCTs.

Fourth, there is the consumer who increasingly wants the 'best' treatment available and is intolerant of variations in practice – or 'postcode lotteries'. This may in part be fuelled by media reports of research 'breakthroughs'. However, the consumers' attitudes are at best ambivalent – the extensive and growing use of 'alternative' therapies, many of which have a research evidence base which is slight at best, shows that the consumer also wants to decide for themselves what works. Activity 1.5 (see Appendix 1) enables this to be explored further.

So we can conclude that powerful forces have fuelled the development of the EBM movement and have vested interests in its success. More fundamentally, like any social movement, it had to be in the right place at the right time. A number of factors seem to have been crucial. Importantly, the oil crisis of the mid 1970s forced Western industrial societies into financial crisis. Muir Gray acknowledges the importance of this economic crisis in the development of EBM (cited in Traynor, 2002). Never again would the price of something not matter and state-funded healthcare represents a massive part of government expenditure. If doctors were undertaking operations for glue ear with no proven benefit then that was no longer just their decision. And partly as a result of the economic crisis, society was also changing. Traynor (2002) defines key products of this new emphasis on fiscal control as the rise of managerialism, the increased use of audit and an increased emphasis on R&D. In addition, society was increasingly conscious of risk but wary of the power and authority of both science and professions to provide solutions. How did EBM fit into this landscape? In theory, having sufficient research evidence to specify 'best practice' allowed managers greater control over individual practitioners, and audit systems ensured that this control was maintained. Although EBM is based on a science embedded in experimental work, it was not a scientific 'grand narrative', rather it provided 'recipes' for best practice which would, in theory, reduce variations in practice and control risk. A further key element in the success of EBM – and the fact that it is a worldwide phenomenon – is the exponential growth in information technology. Without the ability to search electronic databases worldwide EBM would be a much reduced enterprise.

The concepts behind EBM have spread to other healthcare occupations, and subsequently beyond healthcare into management, education and social work and it is commonplace now to describe the movement as evidence-based practice (EBP). In 2008 NICE was given a remit for work in public health, including disease prevention and health promotion. In so doing, changes have had to made to the way in which EBM operates even within the heartland of EBM. Kelly *et al*. (2010) offer an 'insider's' perspective of some of these challenges as they work within NICE on the public health agenda – which of course goes beyond healthcare into education, social welfare, etc. and depends on disciplines such as sociology, anthropology, etc. In moving into new areas, institutions such as NICE have had to move beyond biomedicine with its relatively simple causal models and engage with very different academic and practice disciplines which have their own distinct ways of generating and validating knowledge. A fundamental problem is that the EBM methodology for generating evidence, which gives superiority to RCTs, is not going to work. First, there are few such trials conducted outside of biomedicine, and second, much of the knowledge in social science disciplines is generated by the use of theories and models, which are not amenable to the sort of meta-analysis to which trials can be subject:

> Theories and models require a different way of encapsulating their form and content, their provenance, their ideological dispositions and so on. They are not facts in the sense that someone's occupation or systolic blood pressure are

facts. Theories are ways of organising ideas, usually designed to make observable facts clearer or more coherent, or to offer some kind of explanation for the particular way the facts are, or appear to be.

(Kelly *et al.*, 2010: 1059)

If these differences in the way in which knowledge is generated and validated could not be acknowledged then much of the knowledge of these disciplines would be disregarded as of lower status or including bias. A further problem is that in many public health issues there is a long causal pathway between an intervention and the change it is designed to create, and this creates conceptual complexity not encountered when testing drug A against drug B. Kelly *et al.* (2010) outline some of the ways in which they are engaging with these issues, which include both creating new methodologies, such as developing logic models to manage methodological pluralism, and also trying to use experts in the field to generate consensus. This is very far from where EBM began.

So despite its success in embedding itself into national structures, and in spreading into new fields, EBP remains a highly contested concept and an evolving practice. Even within EBM there were many concerns which were articulated early on in a useful summary document called *Acting on the Evidence* (Appleby *et al.,* 1995) produced by York University. This summarised the EBM movement as: 'the movement away from basing healthcare on opinion or past practice and towards grounding healthcare in science and evidence' (Appleby *et al.*, 1995: 4). This document raises a number of issues. First, it argues that insufficient account is taken by EBM of the uncertainty of clinical practice. Second, it argues that it is impossible to generate information for everything – a key issue for health visiting which exists in a highly complex epistemological and social context. Third, it notes that information about clinical effectiveness generated by RCTs is about populations, whereas clinicians deal with individuals:

How rigid do we expect the doctor to be in reconciling the scientifically derived probabilities of clinical effectiveness with the situation of the individual patient?

(Appleby *et al.*, 1995: 30)

While the debates about EBP generate great heat on all sides, it could be argued that we still await a proper analysis of it as a social movement. Mykhalovskiy and Weir (2004) argue that social science's response to EBM, and by implication EBP, remains immature. They define EBM as: 'the project of reshaping biomedical practice by creating an organising presence for clinical research within medical decision making' (Mykhalovskiy & Weir, 2004: 1059). They define two critical approaches to EBM, one coming from social scientists focusing on the political economy, where EBM might, for example, be seen as part of a movement to restrict the autonomy of clinicians. Alternatively, they identify the critique from social scientists using a medical humanism perspective which suggests that 'In this reading, EBM strips patients of their stories and the meaning of their experience, reducing them to passive recipients of doctor-centered communications' (Mykhalovskiy & Weir, 2004: 1062). They

argue that social science's response to EBM remains at the macro level and more studies are needed about how it operates in practice.

## The current landscape of evidence-based practice

As we look across the new occupations engaging in EBP we can see three interesting responses to the original concept, each of which will be explored more fully in the following sections. First, there are theoretical objections to EBM and particularly to its export into other areas, which are probably best exemplified in a published 'dialogue' between Iain Chalmers, a key figure in the EBM movement, and Martyn Hammersley, a leading figure in the sociology of education and research methods, which is described below. Second, there are those who are quite enthusiastic about EBP but dismayed that it just doesn't seem to change practice. This has produced what might be called the 'barriers' literature, which attempts to identify and eradicate the reasons why it doesn't work. Third, nursing in particular has responded to these issues in a very interesting way. It has criticised the technological model of knowledge used in EBM, and has acknowledged that the linear model of research evidence utilisation may not be wholly appropriate to nursing practice, but in order to stay within the 'evidence-based' fold – and thereby retain status and government approval – it has built on the existing critique of EBM as having a very narrow view of evidence and has redefined the notion of acceptable evidence more broadly.

### Refuting evidence-based practice

From within the discipline of education, Martyn Hammersley has produced one of the most accessible critiques, engaging directly with the arguments of major supporters of EBP, notably Iain Chalmers who wrote an article in support of EBM entitled: 'Trying to do more good than harm in policy and practice: the role of rigorous, transparent up-to date evaluations' (Chalmers, 2003). Hammersley's response is direct: 'Is the evidence-based practice movement doing more good than harm? Reflections on Iain Chalmers' case for research-based policy making and practice' (Hammersley, 2005). Hammersley seeks first to establish common ground. He suggests that there should be broad agreement about the following propositions:

- Practitioners occasionally do harm in their professional work.
- Research can help provide practitioners and policy-makers with useful information.
- Not everything presented as research is either reliable or indeed research.

Further, Hammersley agrees that research needs to be mediated before it can be used by individual practitioners:

> the results of research should be presented to lay audiences through reviews of the available literature, rather than the findings of individual studies being offered as reliable information

(Hammersley, 2005: 87)

However, Hammersley goes on to argue, first, that the methodologies favoured in evidence-based practice – the randomised control trial and the systematic review – are themselves subject to methodological critique and should not be assumed to produce bias free evidence: 'research findings must always be interpreted and are never free from potential error' (Hammersley, 2005: 88). This is not an argument about quantitative and qualitative methods, but rather that *all* forms of research are socially constructed and all research is generated and read within a particular context of experience and judgement.

Second, he argues that Chalmers, and by extension other evidence-based practice proponents, believe that research can *arbitrate* in areas where there are debates about what counts as good practice. By implication he suggests that Chalmers has gone beyond the originally proposed 'partnership' between external research evidence and clinical judgement to valorise the external evidence. He refutes the idea that RCTs should have a privileged status above other kinds of knowledge and be used to resolve disputes.

Third, he argues that judgement is fundamental to good practice because, 'practice is necessarily a matter of judgement, in which information from various sources (not just research) must be combined' (Hammersley, 2005: 88).

He asserts that that the role of professional judgement may differ between different forms and arenas of practice. He argues that downplaying the importance of professional judgement in favour of research evidence could, in some contexts, reduce the quality of practice rather than enhance it.

The dialogue continued with Chalmers's (2005) response: 'If evidence-informed policy works in practice, does it matter if it doesn't work in theory?' which claims that Hammersley misrepresents his views. Interestingly, Chalmers cites a specific example, familiar to health visitors, of research findings changing the previous 'commonsense' recommendations about the way a baby should sleep – on its front or back – as one of the key pieces of evidence supporting the importance and impact of EBM:

> These and countless other examples should leave little doubt that it is irresponsible to interfere in the lives of other people on the basis of theories unsupported by reliable empirical evidence.
>
> (Chalmers, 2005: 229)

Hammersley is, of course, not the only critical commenter of the evidence-based medicine movement. For example, Kerridge *et al*. (1998), writing from a basis in health ethics, argue that EBM has serious ethical flaws. First, they argue that, while EBM is concerned with outcomes, there are many aspects of outcomes which cannot be properly measured. They cite as examples, pain, justice and quality of life.

Second, they argue that in EBM it is difficult to decide between the competing claims of different stakeholders. While it potentially downgrades the power and authority of individual doctors, who should be replacing them in that position? Is it managers; is it patients? And if the latter, how can that be managed? Third, they argue that EBM interventions may transgress common morality because it is

concerned only with evidence of efficacy. They raise issues about the ethical status of trials – on the one hand there are now strict criteria which might be seen as 'good' but these criteria shift over time. Kerridge *et al.* also argue that RCTs in themselves are subject to ethical questions about 'the selection of subjects, consent, randomisation, the manner in which trials are stopped, and the continuing care of subjects once the trials are complete' (Kerridge *et al.*, 1998: 1152).

The literature on evidence-based medicine and practice is full of such claims and counter claims. But while such debates may be exciting and energising for those involved in them, they may be somewhat bewildering or even daunting to lay (i.e. nonresearch) practitioners. But they are important in terms of practice. Kerridge *et al.* (1998) also cite the Australian health minister as saying that '[we will] pay only for those operations, drugs and treatments that according to available evidence are proved to work' (Kerridge *et al.*, 1998: 1153) and in the UK we are familiar with battles between patient groups and the government (via NICE) about the withdrawal of funding from treatments which the recipients believe work.

## So does it work – and if not, why not?

From a purely practical point of view, what is the evidence that research findings, even when expertly mediated through the Cochrane Collaboration, NICE or other guideline systems, are, or indeed can be, directly applied to practice in the linear model implied by the evidence-based practitioners? There is considerable evidence that it is not being applied directly as anticipated, which suggests that we need to think of the relationship between research and practice in more complex terms. In order to examine and explain the problems, a literature developed exploring what were known as the 'barriers' to utilising research. If we could just identify and remove those barriers, the argument went, all would be well. Grimshaw and Thomson (1998) argued that, 'Despite the considerable resources devoted to biomedical science, a consistent finding from the literature is that the transfer of research findings into practice is a slow and haphazard process' (Grimshaw & Thomson, 1998: 20). Grol and Wensing found the same thing:

> One of the most consistent findings in health services research is the gap between best practice (as determined by scientific evidence), on the one hand, and actual clinical care, on the other.
>
> (Grol & Wensing, 2004: S.57).

They studied barriers to change and proposed that they occur at six different levels – for example, the nature of the innovation itself (which is sometimes neglected in the barriers debate), the individual, the social context, the patient, the wider context – really just about anything. These debates are international; there is a very interesting and accessible workshop report from Australia where the National Institute of Clinical Studies (NICS) – their equivalent of NICE – brought together a range of participants to explore how research can be brought into practice (Sweet, 2004). One of the most interesting proposals was the creation of an evidence SWAT (special weapons and tactics) team

which would work, not just with practitioners, but with the media and the public to raise awareness of good evidence.

In the UK, Gerrish (2003) explored some of the barriers to introducing research into nursing based on a study within a large acute hospital. She groups them into factors relating to the organisation, the way research is communicated, the quality of the research, and the nurse. Again it seems difficult to identify anything which might not constitute a barrier. Clearly some of these may include barriers to introducing any kind of change; healthcare organisations are very large and complex and the healthcare sector is highly regulated and risk averse. Others are specific to research based knowledge and Gerrish argues that the way in which the research is conducted and the type of knowledge generated may be important. The traditional model of evidence-based practice, as we have seen, assumes the superiority of a-contextual technological knowledge and a linear model of utilisation. She argues that other research models such as the enlightenment model or action research might have substantial value. Activity 1.6 (see Appendix 1) explores further, barriers to implementing research evidence in health visiting.

## Redefining evidence-based practice

There is a substantial constituency in nursing which has embraced the concept of evidence-based practice, and a supportive power base of journals, professional bodies and university units has been established. This might seem surprising in an occupation which has fought to defend the importance of qualitative research and does not have a substantial tradition of conducting RCTs or systematic reviews (an important exception in the context of health visiting is the work of Elkan *et al*. (2000) in systematically reviewing the evidence on the effectiveness of domiciliary health visiting). Parker (2002), former director of the Victoria Centre for Evidence Based Nursing in Melbourne, provides an interesting perspective on why nursing should embrace EBP in an editorial in *Nursing Inquiry* in which she feels she has to defend her personal support for EBP, not least because she has a reputation for engaging in research in a different epistemological tradition which focuses on experience and narrative. She argues first, that its time has come because of a range of economic, political and market imperatives. She draws attention to the way in which it helps society manage risk, reduce costs and provide accountability. In addition she argues that:

> It provides investigative and justificatory tools to manoeuvre the morass of uncertainty in situations where decisions must be made without knowing the consequences and where many of the comforting routines of the past have fallen away.
>
> (Parker, 2002: 140)

But other researchers have taken a somewhat different path in reconciling engagement with EBP with their value base. Rycroft-Malone *et al*. (2004), in an interesting study called 'What counts as evidence in evidence-based practice?', suggest that nurses can reconceptualise evidence-based practice

by greatly broadening the kinds of evidence which are embraced by the movement in order to make it both more acceptable and more useful. They explore the potential for using four types of evidence: that derived from research; clinical experience; the knowledge of patients, clients and carers; and the local context and environment. The last is somewhat of a 'catch-all term and includes information from audit and performance, as well as patient narratives, organisational knowledge, local policies, etc. They pose two challenges. First, whatever the source, for knowledge to count as evidence it needs to be examined and tested in some way. So, for example, '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' (Rycroft-Malone *et al.*, 2004: 84). Second, they argue that we need to develop our collective understanding of how these various evidences are integrated to generate effective practice. It is important to note that this reconceptualising of acceptable evidence goes far beyond the work to expand the evidence-based outlined by Kelly *et al.* (2010). While they are looking to see how other 'sciences' can be incorporated, Rycroft-Malone *et al.* (2004) are developing the concept of useful evidence as coming from outside traditional science.

In the next section, these themes are further explored through case studies of practice showing real instances of how knowledge is generated and used by practitioners at all level. However, before we move on to them it may be helpful to note an important study which defined the sources of knowledge which nurses currently use and which illustrates some of the themes in the last two sections. Estabrooks *et al.* (2005) explored the sources of knowledge which nurses used through two major ethnographic studies in hospitals in Canada. They found that nurses categorised their sources of knowledge into four broad grouping: social interactions, experiential knowledge, documentary sources, and *a priori* knowledge. Importantly, they note that the category of social interactions dominated their findings. They report that when nurses have immediate and practical concerns they will turn first to their peers who can give both information and reassurance, as illustrated by one of their respondents: 'If one of my colleagues says you know what, D, I have seen that happen time and time again … don't worry about it, I will be reassured by that' (Estabrooks *et al.*, 2005: 464). The nurses had a hierarchy of knowledge but it was not consistent with EBP:

> The high regard for experience also caused nurses occasionally to reject advice from clinical nurse specialists, educators, and physicians when they believed that the advice was inconsistent with their own experiential knowledge. Also nurses sometimes rejected evidence-based patient care protocols in favour of those practices they consider effective based on experience.
>
> (Estabrooks *et al.*, 2005: 468)

Hopefully, this sets the scene for a discussion of how knowledge is managed in particular instances.

## Managing knowledge and evidence in practice

Much of the debate in both EBM and EBP utilises an 'ideal' model of the linear movement of research findings into practice. But how is knowledge actually managed in practice? In this section, five 'case studies' (not all of them are defined as such by the authors), will be examined, which are derived from primary research, which look at how evidence is used for decision-making in practical situations. The first two are at the national policy level, the third describes the development of local guidelines by GPs, the next looks at the use of protocols by nurses in a diabetic clinic and a cardiac medical unit, and the last looks at the practice level within primary care, mainly focusing on GPs and practice nurses.

### Case study 1.1: National policy-making in relation to inequalities in health

In 1997 the government commissioned a review of information on inequalities in health which was asked to make recommendations for policy development. Seventeen topics were identified and experts were asked to provide papers to the scientific advisory group in order to demonstrate the relevant knowledge in the area. In addition, a group of very skilled and influential figures in evidence-based practice was asked to form an evaluation group to look at the quality and adequacy of the evidence presented. This comprised Sally Macintyre, Director of the Social and Public Health Sciences Unit; Iain Chalmers, Director of the UK Cochrane Centre; Richard Horton, Editor of *The Lancet*; and Richard Smith, Editor of the *British Medical Journal* (*BMJ*). They represented a formidable group of supporters of evidence-based practice and its extension into public health.

They developed a methodology for evaluating the policy recommendations which is included here because it presents quite a challenge to those who see supporters of evidence-based policy-making as being concerned *only* with the research evidence to the exclusion of other important issues. Their criteria investigated the following issues:

- 'Supported by systematic, empirical evidence;
- Supported by cogent argument;
- Scale of likely health benefit;
- Likelihood that the policy would bring benefits other than health benefits;
- Fit with existing or proposed government policy;
- Possibility that the policy might do harm;
- Ease of implementation;
- Cost of implementation.'(Macintyre *et al*., 2001: 223)

*(Continued)*

**Case study 1.1:** (*Continued*)

It is obvious that they consider that research is one, but only one, of the things which should be considered when making health policy. They argue that: 'Research on the effectiveness of policies will never be more than one of the factors that must be considered by policy makers.' (Macintyre *et al.*, 2001: 223) What was published later in the BMJ is not their report to the enquiry but a subsequent commentary on the issues raised, first, they found that there was little empirical evidence about the effectiveness of the strategies proposed:

> Many of the submissions to the enquiry…consisted of wish lists of potentially useful interventions without evidence of their effectiveness in practice.
>
> (Macintyre *et al.*, 2001: 223)

Second, they found that none of the input papers had a methods section explaining the inclusion/exclusion criteria. In other words, it was impossible to know why some studies had been included and others not and they noted some instances of partial or selective use of evidence. Third, there was little reference to the potential harm the proposed policy might cause, or to costs and opportunity costs. Fourth, there was better evidence for studies related to interventions at the level of the patient or client then there were about policies relating to interventions in communities. Fifth, there was very little reference to policy implementation being monitored. Macintyre and her colleagues concluded that much more needs to be done to create a systematic knowledge base for public health and to keep it up to date. They noted that there were three relevant reviews produced in 1995 but inevitably they were of limited use by 1998. Importantly, one of the key characteristics of the Cochrane Collaboration is that it is committed to keeping all systematic reviews updated.

**Case study 1.2: Introducing new technology**

This case study (May, 2006) relates to the potential introduction of telehealthcare systems and explores how policy-makers and researchers engaged with each other over a practical issue. The data in May's case study is derived from a series of public and private meetings held between 1998 and 2004 and two sessions of the UK House of Commons Health Committee in 2001 and 2005. The meetings involved a very wide range of participants – senior health service managers from every NHS level, social care managers from the public and voluntary sectors, policy-makers from a number of UK government departments and from the Welsh Assembly and the Scottish Office, university researchers, and representatives of service providers and manufacturers. May was involved in the meetings as a participant – as an expert advisor from a sociological perspective.

At the beginning of the process the proponents of telehealthcare, the NHS managers and the policy-makers were all agreed that they need the robust evidence RCTs and systematic reviews could provide. However, as time went on there was increasing dissatisfaction with using trials. A senior clinician said:

> Trials are vital, they give us the evidence, but the evidence is always arguable and it doesn't influence policy makers as much as we would like. *They suffer from evidence fatigue* …
>
> > (May, 2006: 519; original emphasis)

Trials began to be disparaged for one of their defining characteristics; they are a-contextual in order that they are generalisable, so by definition cannot provide evidence about the practicalities of innovation in a specific service context. As respondents noted, trials may advantage researchers but they do not reflect what happens in 'normal' practice.

So, while researchers wanted to do clinical trials – they got funding to do them and published their results which could lead to increased funding for their university – managers who actually wanted to get on and solve their problems were disenchanted. Clinical trials did not provide the 'workability' evidence that they needed. By the meeting in 2004 clinical trials had ceased to be of interest and managers and policy-makers were looking to working with service providers to set up local demonstration projects. Interestingly, the providers themselves had moved away from providing telehealthcare, which involved clinical practice at a distance, to telecare, which involved safety systems to support people in their own homes, with a commensurate reduction in the need for research evidence of clinical safety and levels of risk.

May (2006) identifies a number of issues in the organisation and reception of knowledge produced within a Health Technology Assessment model of formal quantitative knowledge generation. He argues that:

> In practical terms the division between research elites and local managers is expressed by the latter seeking more flexible modes of knowledge production … In the world of service provision, such highly medicalised models of research practice have been by-passed or displaced by different kinds of institutional actors as they seek to rapidly implement new models of service provision.
>
> > (May, 2006: 528–529)

He also argues that formal research methods provide a 'flavour' of science to support decisions which are essentially political. In terms of the science, he concludes that evidence is always socially constructed within specific contexts.

## Case study 1.3:  Creating guidelines in primary care

This study by McDonald and Harrison (2004) looked at the process of developing local clinical guidelines on the treatment of patients with actual or potential heart disease by GPs. At the time of the study, the GPs were linked into a Primary Care Group (PCG) (which were replaced by Primary Care Trusts, which again have been replaced by commissioning groups of GP practices). It was a participant observation study as one of the authors was an expert adviser to the group in the field of economics and finance. The study is largely based on field notes made at a series of meetings between 1997 and 1999.

The impetus for the development of the local guidelines was in part the imminent publication of the National Service Framework on Coronary Heart Disease and in part concern about the costs of existing practice. Statins, a drug for treating or preventing heart disease, are relatively cheap drugs, but the number of potential recipients is large so the overall cost could be significant. The PCG had an existing cardiac focus group which included the Health Authority's Pharmaceutical Advisor, the local consultant cardiologist and a number of GPs. This group was charged with making recommendations to all the GPs about managing patients with cardiovascular disease.

The first part of their work focused on developing a statin prescribing guideline. The group used a number of sources of evidence, including the results from a number of significant RCTs, which clearly showed statins could be effective in reducing mortality, an article from the *BMJ* which discussed the cost-effectiveness of prescribing strategies in relation to statins, guidelines published by the Standing Medical Advisory Committee (SMAC), and information from pharmaceutical companies.

What issues concerned the group? First, the GPs complained that they didn't understand the SMAC guidelines or the RCT results: 'There was general agreement on the difficulties of making informed choices, particularly when faced with "evidence" from pharmaceutical company representatives' (McDonald & Harrison, 2004: 228). They were confused by the risk tables attached to the SMAC guidelines and felt there were key issues missing, such as family history. The Pharmaceutical Advisor – who was presumably keen to limit prescribing – suggested that it might be best to concentrate on patients with coronary heart disease because they were high risk. The group then debated what constituted high risk, with a number of GPs giving examples from their patient population. Importantly: 'The discussions of risk perception revealed that GPs each had their own ideas about what constituted risk' (McDonald & Harrison, 2004: 228), which largely centred around their views on the importance of lifestyle and smoking. A major discussion focused on the age cut-off for prescribing statins. While the Pharmaceutical Advisor urged a focus

on younger patients, a number of the GPs cited particular cases of elderly patients who they believed 'deserved' statin therapy and the advice was not taken. There were further debates about, for example, which test should be used to establish cholesterol levels. At one point the economic advisor produced a substantial paper modelling the costs and benefits of options for change, but she was politely told that the GPs were 'simple souls' who couldn't understand it. However, the group did eventually agree a guideline, but it was clear that it was guidance rather than prescription. The result of all the work is interesting: before the guideline was produced there was huge variation in prescribing; afterwards there was huge variation in prescribing!

McDonald and Harrison (2004) were interested at the start of the study about whether guidelines were the tools of management or of a professional elite. Their conclusion is that it is really more complicated than that – localities, people and histories all play a part. The GPs relied on reference to individual cases: 'I had a patient in the other day' (McDonald & Harrison, 2004: 228); managers who were concerned about the outcomes of the project tended to move on to other jobs before the work was complete; and while the GPs agreed with the consultant when he was there they ignored his views after he had left the meeting. However, McDonald and Harrison (2004) argue that while the guidelines here did not seem to alter practice, an increased government focus on guidelines subsequent to this study may have made adherence to guidelines more likely. But in terms of the way in which local guidelines might be developed, a conclusion from this study must be that the introduction of technical research solutions into practice is not a simple linear process and practitioners rely heavily on their own knowledge and experience.

## Case study 1.4:   Protocol-based decision-making in nursing

This case study (Rycroft-Malone *et al*., 2009) looked at nurses' decision-making in two contexts – a diabetic and endocrine unit and a cardiac medical unit. Using a variety of data collection methods, including participant and nonparticipant observation, interviews, field notes, and existing documentation, they sought to determine how nurses reached decisions, and in particular whether and how they used protocols. As they note, standardised care approaches can have a variety of names, including protocol, care bundles, care pathways, and clinical guidelines. However they all have a similar aim of standardising practice through the provision of a 'best care' recipe. This is intended to ensure that 'best

*(Continued)*

**Case study 1.4:** (*Continued*)

care' is given but also to simplify decision-making for practitioners. In each of the research sites a number of protocols were available, although interestingly, a number of them were put away in the office.

They found that there were four major sources of information used in decision-making: interaction with colleagues, standardised care approaches, instinct, and patients. They found that: 'Decision making was a social activity, especially during a shift with nurses of mixed experience and knowledge' (Rycroft-Malone *et al*., 2009: 1494) and nurses would often look to more senior or experienced nurses for advice. While protocols were used, this was not in an obvious and systematic way. The nurses in the cardiac medical unit thought they were too busy to refer to protocols and, in any case, they believed that they were impersonal and did not necessarily define best practice. In the diabetic clinic the nurses were aware that the patients had a lot of knowledge about their own condition and any protocol would have to be 'flexed' to accommodate this. In general, the knowledge derived from the protocol became 'intertwined with experience' and indistinguishable in everyday decision-making. Where protocols were thought to be useful was in teaching, in 'new' situations, and in order to support the nurses' decision-making post-hoc, should there be a query.

Importantly, the study noted that nurses make a lot of decisions, from medication and treatment to time management, and that protocols could not possibly be available for every decision. They report that:

> Some nurses described the mental processes during decision-making as following steps or a mental flowchart or checklist, not necessarily linked to a particular guideline or protocol.
>
> (Rycroft-Malone *et al*., 2009: 1494)

As we shall see, this concept, as well as the notion of authority figures, resonates with some of the conclusions of the final case study.

**Case study 1.5: Knowledge management in primary care**

Gabbay and le May (2004) conducted a substantial ethnographic study looking at knowledge management in primary care based in two practices. They were interested in how research evidence might pass into practice, and particularly at how – and if – this was managed at the level of the individual practitioner and/or the level of the collective, and how the two were connected. They did not find evidence to suggest that research findings were feeding directly into decision-making:

> We found that the individual practitioners did not go through the steps that are traditionally associated with the linear-rational model of evidence based health care – not once in the whole time we were observing them. Neither while we observed them did they read the many clinical guidelines available to them …
>
> (Gabbay & le May, 2004: 3)

In contrast, they found a more complex picture of practitioners using a variety of sources of information, notably professional journals (not research journals) and networks of other practitioners, to build up their knowledge. Within their professional networks some people were thought of as 'authorities' who could be relied on to give reliable advice. For example, in this case the local Primary Care Trust (PCT) pharmaceutical advisor was considered to be such a reliable source. They present an example of how in one practice a local protocol for heart failure was generated. The doctor who was asked to develop the protocol used the local hospital guidelines (where the cardiologist was another respected 'authority'), and integrated this with two other published guidelines and with her own experience. The result was presented to the practice team which largely left the scientific basis unquestioned – after all, it was based on trusted sources. Their concerns were much more about whether the protocol was workable and would advantage the practice both in terms of financial and quality measures.

Gabbay and le May (2004) coin the term 'mindlines', in contrast to 'guidelines', to convey the way in which practitioners use such sources, as well as their training and their experience, to generate personal internalised tacit knowledge to guide their practice. These 'mindlines' are not static but will be progressively negotiated and changed through various interactions – for example practice meetings, discussions with colleagues and interactions with patients. They argue that, if research is to affect practice, it will be via these processes and not through an idealised model of rational adoption. Further, they draw attention to the importance of locality – clinicians practice in a particular context of colleagues, managers and histories. Consequently they propose that

> the real skill of the practitioner might be expected to be that of learning reliably from the knowledge of trusted sources either individually or through working in a community of practice.
>
> (Gabbay & le May, 2004: 6)

## Lessons from the case studies

The brief summaries above cannot do justice to the richness of data and analysis contained in each case study and they would reward further reading. They paint a rich picture of how things get done – in effect, telling 'stories'

about how the participants make sense of their world. The studies all relate to key issues of importance to health visiting – how is national and local policy determined, how are guidelines constructed and used, and how does a group of people on the 'front line' manage its knowledge base? This literature does not support the ideas of a linear model of research being unproblematically imported into practice. Neither does it support the concept of 'barriers' to research utilisation, a concept which of course still depends on a rational linear model of research integration into practice. While a debate raged about the theoretical, political and practical aspects of EBP, the actors involved in these case studies did not seem to engage with that but just went about their business in ways which seemed sensible to them and which would achieve the outcomes they wanted. That is not to say that they did not understand that knowledge is both contested and situated. Key messages from the case studies include the notion that research is never value free; that its relevance and applicability are as important as issues of research design, and that in practice, both managers and practitioners have to decide what to do in conditions of uncertainty and in the context of patient expectations. Because knowledge is contested so must be one of its important manifestations in healthcare – the protocol or guideline. Hutchinson and Shakespeare (2010) argue that

> Wherever a protocol is generated – and it may be at the highest governmental level of standard setting and regulation – it is operationalised by individuals working in contexts that shape their own practice and identity. Therefore, while protocols may appear to be straightforward unambiguous statements of practice matters, there is an infinite range of possible application.
>
> (Hutchinson & Shakespeare, 2010: 75)

The nurse respondents in Traynor *et al*.'s (2010) study also referred to protocols when describing the nurses' decision-making. The study, which is based on nurses' accounts of their practice, describes a dichotomy between technical knowledge and indeterminate knowledge. Clearly the former relates to formal sources of knowledge, including protocols, whereas the latter was related to terms such as instinct and intuition. Their descriptions of technical knowledge – guidelines, manuals, protocols and evidence – acknowledged them as valid but of little use in practice. Traynor *et al*. suggest that

> participants constructed a balanced, but professionally defendable position. On one hand, they acknowledged and appreciated formalised instruments for being helpful and in some cases necessary in clinical decision-making … On the other hand, the instruments were also something obviously (in practical and ethical terms) impossible to adhere to fully in practice, and therefore they need constant modification according to the clinical situation.
>
> (Traynor *et al*., 2010: 1589)

Activity 1.7 (see Appendix 1) enables you to explore the use of guidelines in practice. Whether protocols, guidelines, care pathways, etc. are locally or nationally constructed they will be mediated in practice by the practitioner

and, Hutchinson and Shakespeare (2010) argue, by the context in which the practitioner is operating. They look particularly at how this works in a community of practice, a concept which was contained in the last case study which suggested that they are fundamental to the way in which practice – and knowledge management – gets done. So what are communities of practice?

## Communities of practice

The current interest in the concept of communities of practice (CoP) has largely come from the work of Lave and Wenger (2001). Wenger (2006) proposes that 'Communities of practice are groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly' (p. 1). The primary focus, and why it is of interest and potential use in healthcare, is in how we learn and how learning takes place in ways that are not dependent on 'teaching'. They therefore have the potential to create a mechanism through which practitioners can work to improve their own practice. A community of practice can occur in any sphere of social activity but it will have the following attributes:

- a shared domain of knowledge;
- a group willing to share ideas and to interact;
- a shared practice.

So a classroom could be a CoP, as could the staff working in a GP practice, as could a group of health visitors and nurses working around a clinic. Such communities do not need to correspond to institutional boundaries – for example, although all the health visitors in a particular district or city might be brought together in a meeting organised by management, this would not automatically constitute a community of practice, although it might be managed so that it does. Key to a community of practice is the mutual engagement of the participants and their willingness to work together in developing their practice through a variety of activities including (Wenger, 2006):

- collaborative problem-solving;
- asking others about their experiences and seeking information from them;
- reusing the knowledge assets of the group;
- coordination and synergy;
- discussing developments and innovations;
- documenting projects;
- mapping knowledge and identifying gaps.

The end result of these activities will be 'a shared repertoire of ideas, commitments and memories' (Smith, 2003, 2009).

While it is obvious that such communities are arenas of shared learning and development, it should not be assumed that they will have the same interests and goals as either other communities or their employers. For example, Wenger (1998) refers to schools in which communities of practice organise

their knowledge in opposition to that proposed by institutional curricula. Each community will have its own ideas about what constitutes knowledge and competence. Neither should it be assumed that all the participants think and act the same, rather they are engaged in a shared enterprise. Each participant might have a very different view of what constitutes valid knowledge, but they are prepared to discuss and negotiate until they achieve workable solutions. Communities are also not just about managing knowledge, they are vehicles for social engagement, making work meaningful and developing identity. The resources which a community will use are not all, or even largely, locally generated. Language is the most obvious example of a resource which is imported from outside, although communities may nuance language to reflect their particular history and circumstances. Research knowledge and national and local protocols for practice will also be imported, but because a community is a negotiated enterprise their meaning and use will differ between communities.

There are many communities of practice which together will generate a *landscape* of practice. The communities will intersect and interact in various ways. Wenger (1998) argues that the participant at the periphery of a community can sometimes bring new ideas into the group because they are still able to see beyond the taken for granted knowledge of the group. Newly qualified practitioners could take this role – bringing resources from the 'old' community of practice – the classroom or placement – into their 'new' community of work, which of course may or may not welcome them!

Hutchinson and Shakespeare (2010) draw our attention to Wenger's ideas about the ways in which sources of professional knowledge and expertise have been associated with particular institutions:

- universities are connected with theory and research;
- workplaces are connected with experience and local practice;
- regulatory agencies produce prescriptions of best practice;
- professional bodies are concerned with local management and professional identity.

Each of these institutions will have many communities of practice. Researchers in universities, for example, largely enjoy similar contractual obligations and rights related to their employment, but they are likely to belong to different communities of practice related to their research interests and methodological affiliations. This produces a 'landscape' of practice in which different communities of practice overlap and interact and communities of practice could cross these institutional boundaries. Academics interested in reflective practice, for example, may be more likely to be in a community of practice with practitioners using reflective practice than with fellow academics who embrace RCTs. Negotiation takes place within communities about what sort of knowledge is to be valorised. Practitioners may despise 'university' knowledge as irrelevant to practice; university practitioners may see health service practice as largely a source for recruitment for research. However, Andrew *et al.* (2008) offer a very practical example of a working CoP in nursing

which crosses these institutional boundaries. They describe how a group of 30 practising nurses and university academics throughout Scotland operated as a CoP within the framework of the Gerontological Nursing Demonstration Project. They interacted regularly, both on-line and in real time, and explored their practice in an environment of mutual respect and support. A number of best practice statements were produced which have subsequently been disseminated more widely. They argue that

> In nursing, CoPs have the potential to allow practitioners and academics to collaborate to challenge and change practice … this way of working has the potential (to) create a vibrant work and learning environment. The fluidity of the framework encourages practitioners and academics, to integrate incrementally, the dimensions of research, education, clinical practice and user experience to respond to the increasing demand for wider institutional and professional awareness.
>
> (Andrew *et al*., 2008: 251)

An example of a community of practice within social work is a project called *Making Research Count*. This brings together on a regular basis academics from ten different universities and associated groups of social work practitioners and managers working in approximately 60 agencies. While much of the focus is on getting research into practice, the fact that the agencies, which provide funding for the programme, can define their needs and set the agenda, and that the research is discussed in the context of actual practice needs, seems to take this beyond some of the constraints of EBP. In addition, practitioners are encouraged to generate evidence from their own practice and are taught how to use appropriate tools. It could be argued that this is an effective 'evidence focused' community of practice.

## Reflective practice

Another way of both generating and managing knowledge in practice is through what is known as reflective practice. Just like evidence-based practice this started as an enthusiasts' movement but has now become institutional-ised within nursing – and is used within other occupations, particularly within healthcare. The basic concept is relatively simple:

> Reflection is more than just thinking, it is an intentional practice based learning activity that focuses on improving future actions in clinical practice by looking back at what has already happened or is happening.
>
> (Driscoll & Teh, 2001: 102)

It is intended to help the practitioner unearth and explore her knowledge about her practice, with a view to moving beyond routinised actions into new ways of thinking and doing. Because it is not easy to 'just reflect' on your practice, various methodologies have been produced to assist the practitioner.

These essentially offer a series of 'prompts' or questions to help the practitioner structure her thinking. In addition, practitioners are encouraged to keep a reflective diary or journal in which they describe and explore their practice. Reflective practice has been adopted by institutions within nursing as a way of ensuring and evidencing that practitioners continue learning and are therefore eligible for re-registration, and it is being taken up within medicine and other healthcare occupations for the same reason. It has also been adopted by many universities and associated regulatory agencies and built into many education curricula at both pre and post registration levels.

However, while its proponents and supporters remain enthusiastic about the power of reflective practice, it has not been without its critics. Jennifer Greenwood (1998), from the University of Western Sydney, entitled an editorial, 'On nursing's "reflective madness"'. She argues that reflection requires adequate time and proper training and that, in the absence of these, it will result in poor learning. More profoundly, she argues that, although the theories supporting reflection were intended as an antidote to the valorisation of technical rationality, they themselves support the idea that 'intelligent action requires conscious thought' and fail to understand that much of the tacit knowledge the practitioner uses to deal with complex practice is inherently unavailable to them. Mackintosh (1998) argues that the theoretical basis of reflective practice remains unclear despite acknowledged links to educational theorists, particularly Schön (1983). A further issue is that reflection has come to focus on the individual practitioner's thoughts, values and beliefs. So, for example, Somerville and Keeling (2004) say that:

> Reflection is the examination of personal thoughts and actions. For practitioners this means focusing on how they interact with their colleagues and with the environment to obtain a clearer picture of their own behaviour. It is therefore a process by which practitioners can better understand themselves in order to be able to build on existing strengths and take appropriate future action. (p. 42)

Consequently, it tends to downplay a number of important aspects of practice. First, by focusing on the non-technical-rational aspects of knowledge such as the personal and ethical aspects, it may not help practitioners understand how they might integrate technical-rational knowledge. Second, the patients and clients may in these accounts become passive recipients of practice rather than active participants in a joint enterprise. Third, by focusing on the personal it may ignore the social aspects of knowledge management. And perhaps the most important issue is that it does not focus on the outcomes for the patient or client.

Looking back at Case study 1.5 and on the discussion on communities of practice, it could be argued that we need to focus more on how groups and communities manage knowledge, and even within individual reflection we could ask the practitioner to reflect explicitly on her community of practice and her place within it. Is it a community which encourages managed

innovation? Is it a community which values knowledge coming from external sources – and, if so, which ones? Is it a community which values the knowledge base of the client and looks at their individual circumstances? How are protocols discussed and integrated into practice by the community? In each of these – and many other examples – the practitioner can explore her relationship with the group, deciding whether she is satisfied that it is a community of practice which supports her learning and what she might do to improve her practice. Poland *et al*. (2005), in their discussion of place, suggest that reflection could usefully see practice through the 'lens' of place which again would offer a fuller understanding of the social environment of practice.

A further important criticism of reflective practice is that the resources available to the individual practitioner through recollection cannot reflect the reality of practice. Recall is rarely accurate – as anyone engaged in the judicial system will affirm. Here we need to return to the comments at the beginning of the chapter about the complexity of health visiting practice and the focus on the central importance of language. Taylor and White (2000), writing about social work and community nursing practice, agree with reflective practice in so far as it provides a potential response to the technical-rational approach embedded in EBP which they agree cannot deal with the complexities and ambiguities of practice. However, they propose that engaging in *reflexive* practice offers a remedy to the problems of memory and recall. They argue that:

> We are not interested simply in what we have done and how we have gone about things when we reflect on our practice, we must also concern ourselves with the (tacit) assumptions we are making about people, their problems and their needs when we apply knowledge about child development, mental health, learning disability and so forth.
>
> (Taylor & White, 2000: 35)

By this they mean that practitioners must produce hard evidence (they propose audiotape recordings) about their practice in order to analyse it rigorously. This will allow them to determine what they actually did rather than what they can recall. Their 'tacit' knowledge may not be available for recall but it will appear and will be available for analysis in the record of what they actually said. They are proposing that practitioners can themselves undertake the kind of analytic work about institutional practices which can be seen in Drew and Heritage (1992) and in the discourse analysis of health visiting which was described above:

> by analysing transcripts of their own talk as part of a regular self-audit, professionals can be made more aware of the embedded alternative readings, so that they may judge for themselves whether those readings are or were worth pursuing.
>
> (Taylor & White, 2000: 135)

Taylor and White (2000) provide useful ideas about how this transcript analysis can be done; for example, they suggest a number of analytic questions

including how authority is conveyed, how control is managed, how facts are defined and by whom, etc. And while clients may be relatively absent in reflective practice, within reflexive practice they become both visible and expert practitioners in their own right:

> Patients are not docile and passive recipients of advice and treatment. They use the resources at their disposal to show their moral adequacy, to resist being undermined, to attempt to define 'the facts' and to make themselves worthy of sympathy.
>
> (Taylor & White, 2000: 115)

## Clients: what do they know and how do they know it?

So far, the focus has largely been on how the practitioner accesses and assembles knowledge and what might be useful sources of valid and reliable evidence for them. In the past, access to such knowledge would have been largely limited to practitioners and this created an important differential between practitioner and client and arguably was part of the power base of the practitioner who was seen as the 'expert'. However, this differential in the ability to access knowledge has largely been eroded by the explosion of electronic media. In terms of text based knowledge, clients have *access* to the same sources of knowledge as most practitioners. Whatever is on the web is available to everyone. Wilson (2002) tells us that: 'A poll in August 2001 concluded that almost 100 million Americans regularly go on line for information about health care' (p. 598.) And she also tells us that over 100 000 sites offer health advice – and this was in 2002; it is unlikely that this number has diminished subsequently. Health visitors can see this as a threat or a challenge – but either way they cannot ignore it.

The general public can now access a range of formal sources of knowledge: the Cochrane Library, NICE guidelines, other guidelines, original research reports and all the media responses to them. Many research and professional journals are also now available free electronically. Government websites provide national and local data on public health statistics (discussed further in Chapter 6). There is absolutely no possibility that access to these data sources can be controlled. Access is also free to a number of less formal sources of knowledge such as wikis. Any search engine, such as Google, will access lists of knowledge sources. Some of these sources will be formal – such as journals – but they will also include media reports, advertising sites, etc. Wikipedia is one of the best known knowledge access sites – what is perhaps less well understood is that the knowledge posted on Wikipedia is not subject to the same process of expert contribution, rigorous review and guarantee as that in a conventional encyclopaedia.

There is, as you might predict, a lively debate about the quality of the advice on these sites and whether they should be quality controlled in some way.

A study of health information in relation to managing fever in children at home (Impicciatore *et al.*, 1997) found 41 relevant web pages (there may well be more today) but only four which adhered closely to published guidelines for the home management of childhood fever. Wilson (2002) suggests that there are a number of possible mechanisms for 'controlling' information:

- a self-applied code of conduct or quality label;
- user guidance systems;
- filtering tools which accept or reject sites;
- quality and accreditation labels applied by third parties.

Codes of conduct do exist but, of course, it is easy to write a code but much harder to enforce it and third party accreditation systems are extremely expensive. An alternative approach is to say that the general public copes with books and will learn to cope with the internet. So one argument is that:

> The greatest challenge is not to develop yet more rating tools, but to encourage consumers to seek out information critically, and to encourage them to see time invested in critical searching as beneficial.
>
> (Wilson, 2002: 600)

What is the role of the health visitor in this debate? What advice should she give clients about the information on the web? How might she explain the relative validity of various websites?

## Social networking sites

Social networking sites now represent a major source of information for a number of client groups, but especially mothers. These new forms of electronic communication have allowed us to move away from the role of passive recipient of information and into a role as an active participant in a dialogue. There are vast numbers of social networking sites which may be used synchronously or asynchronously. An internet forum, message board, Usenet group, etc. is essentially asynchronous. It is not a live conversation. Two of the most obvious examples are *Mumsnet* and *Netmums*. Whereas once the new mother might depend on the local mother and toddler group – and may well still – today she also has access through websites such as *Mumsnet* and *Netmums* to a vast community of people experiencing the same rites of passage and tackling the same problems as herself. Not only can she access that knowledge, she can specifically seek answers to her questions – and is very likely to get responses – and can contribute her own experiences. It can be argued that these sites are essentially large communities of practice – they are clearly focused on the practice of motherhood, and many participants are keen to engage and contribute, although many others may be content to watch from the periphery. Certainly both of these sites provide enormous resources of advice and experience, which may not be verified in any formal fashion but are undoubtedly very influential. Again, it is worth asking what the relationship

of individual health visitors and of the occupation should be to these sites. Could health visitors join with clients to create a CoP transcending professional boundaries?

If access to electronic sources of knowledge is a major part of how knowledge is transmitted and acquired in the early twenty-first century, it might be argued that the role of the health visitor is twofold. First, to ensure that all her clients have access to these sources; and second to help each client understand their use and validity. With regard to the first, the government has made it clear that access to digital information is a right of every citizen. With regard to the second, the practitioner needs a sophisticated understanding of how all kinds of evidence are promoted and disseminated electronically.

The internet has been called 'A Postmodern Pandora's Box' (Kata, 2010). Kata looked in particular at internet sites in the USA and Canada which were opposed to vaccination. She found that these sites offered only one version of 'truth' – that vaccination was unsafe, ineffective, unnatural (compared with alternative medicines) and a threat to civil liberties (in some parts of North America vaccination is required before entry to the public school system). Furthermore, some sites asserted that the diseases which vaccination was designed to prevent were either not serious – an example was smallpox – or caused by other agents – polio, for example, was thought to be caused by eating too much sugary food, notably ice-cream, hence it was prevalent in the summer. In terms of the style of the websites, personal testimonies, mostly narratives from parents who felt their children had been damaged by vaccines, were the most common means of generating a response.

Given that such sites will continue to proliferate in a democratic society increasingly dependent on electronic communications, an obvious response might be to offer a strong refutation based on the scientific evidence and to increase the focus on educating parents. Kata (2010) argues strongly that this cannot be an effective response:

> The post-modern perspective questions the legitimacy of science and authority. Traditional controversy dynamics, with 'audiences' needing to be 'educated' by 'experts' no longer apply. Confidence in the power of expertise has sharply declined; appeals to experts are often considered manipulative.
>
> (Kata, 2010: 1715)

She argues that we need to understand the discourses and ideologies which underpin people's beliefs in order to enter into a meaningful dialogue with them.

The controversy over the measles, mumps and rubella (MMR) vaccine offers a useful example of how some of these issues are managed by parents in a real situation. In the late 1990s a research paper was published which suggested a link between the MMR vaccine and the development of autism and inflammatory bowel disease (Wakefield *et al*., 1998). While not many parents read *The Lancet*, the media picked up on the potential importance of the issue and it became headline news. The take-up of the combined vaccine fell from over 90% to a low of 58% in some parts of the country and there were outbreaks

of measles and mumps (Hilton *et al*., 2007). Evidence from a study of parental views using focus groups (Hilton *et al*., 2007) demonstrates that parents have serious concerns about who to trust in such situations. Five main sources of information were cited by parents but their credibility varied. The government had little credibility, possibly because of its position on previous public health scares including the Bovine Spongiform Encephalopathy (BSE) outbreak. The degree to which the media was trusted varied widely but the amount of media coverage and the fact that the media tried to show both sides of the story, and thereby raised the profile of the work of Wakefield *et al*. (1998) fuelled concerns about the vaccine's safety. Views about the trustworthiness of health-care professionals were again mixed but doubts were raised as they were perceived to be part of 'the system' and therefore bound to support the government 'line'– and possibly also securing a financial advantage by meeting targets. A common theme in the parents' responses is that they:

> did not know to what extent their own GP or health visitor was acting in their child's best interest, as opposed to acting in their role as an advocate of public heath policy.
>
> (Hilton *et al*., 2007: 8).

While the health professionals were often seen as having entrenched positions, Wakefield himself was admired by some as having dared to bring the issue out into the open. He was seen as a principled 'whistleblower'. Interestingly, the most trustworthy source was defined as other parents who were perceived as just telling it like it is. Even within the media coverage:

> Parents spoke of feeling particularly drawn to anecdotal stories involving real people, and spoke about finding other parents' stories more convincing than statistics and reassurances from scientists and politicians …
>
> (Hilton *et al*., 2007: 9)

As we have seen, by using the website parents can access for themselves a rich source of other parents' stories and concerns.

Hilton *et al*. (2007) also raise the issue of the expectations parents may have of health services which may be different from the role the health visitors feel they can perform. The BBC News health website (BBC, 2008) quotes a mother as saying she wants a guarantee that there is no danger, specifically she is reported as wanting: 'Some documentation, or reliable medical information from GP surgeries or the government to prove that there is no link whatsoever.' While clients may want certainty, very little research can provide it, certainly not at the level of the individual. This issue has been well explored by the proponents of EBM, see, for example, Gray (1997) who acknowledges that RCTs can only ever deal in generalities over a given population. And the fact that in a study population of, say, 2000 there was one case of negative effects, cannot be extrapolated to define the risk to any single individual as one in 2000. The specific risk to the individual is largely unknowable so in all

one-to-one discussions with the client the practitioner must rely on her own experience and skills as well as evidence 'imported' from outside and she should also rely on the experience, beliefs and skills of her client.

## The debate

At various points in this chapter we have looked at how we can obtain and use evidence *for* practice, evidence *about* practice, evidence about *your* practice and the *client*'s evidence base. Two of these have received much more attention than the others because they are supported by substantial groups of enthusiastic followers and, more importantly, have become embedded in institutions and policies at every level. Evidence-based practice focuses on evidence *for* practice and despite serious critiques from both those willing it to succeed and those opposed to it in principle and practice, it is fully embedded into the NHS quality assurance systems at all levels, despite the fact that it absorbs considerable resources. While, in general, the emphasis is now on the prescription of protocols for practice – the use of which may determine the funding formula of providers – some nurses are still enjoying the spirit of the early days of EBP when individual practitioners were exhorted to find and evaluate the evidence and change their practice. An anecdotal review of curricula for health visiting suggests that despite the critiques – and the lack of actual success in changing practice – the focus remains on evidence *for* practice, and the idea that individual practitioners can and should review and evaluate the importance of research studies and decide to change their practice on the basis of them remains a prevalent model. Hopefully, it is clear from the argument above that, for a number of reasons, this is not a sustainable or indeed a safe model for practice. First, it is impossible for any practitioner, or even group of practitioners, to keep up with the range and volume of relevant research. Second, evaluating research is a very skilled and specialised practice and the methodological variety of relevant studies makes evaluation of the full range impossible. Third, very many of the studies in nursing and health visiting are conducted on a small scale and, while these are often stimulating and interesting, they cannot provide the necessary evidence needed to underpin practice change. Lastly, and rather importantly, there is a growing body of evidence on the 'barriers' to using research which shows that it just doesn't work!

However, practitioners are the focus of a massive array of protocols. Many of them, such as those produced by regulatory bodies, seek to define the identity of the practitioners either directly or through specifications for education. Protocols are a way of communicating between all the different layers of practice, management and regulation (Hutchinson & Shakespeare, 2010). The protocols which come, or purport to come, from rigorous scientific research assert that they have a particular scientific warrant which gives them a privileged status. But in practice, as has been shown, they may be of dubious scientific provenance and embedded in particular political or managerial positions. Practitioners should always explore, and if necessary challenge, these prescriptions for practice.

The other focus, certainly within nursing but increasingly in other groups, has been on generating evidence of *your* practice through reflective practice. As with EBP, a whole industry of journals, books and 'experts' has flourished and the movement – evangelical again – has become embedded in curricula and re-accreditation processes. Mackintosh, writing in 1998, asserted then that reflection was a passing fad and would be gone in ten years – how wrong she was! Interestingly, there is far less debate and fewer critiques of reflective practice than of EBP – perhaps because its power base is in nursing rather than medicine, rendering it less interesting to external academics and commentators. But this may well also be due to the lack of any clear formulation of what reflective practice really is. This has rather left a vacuum where supporters and practitioners of reflective practice can assert that it improves practice without any serious evidence, other than their own anecdotes. Much of the writing about reflective practice focuses on it as a methodology rather than on its outcomes.

Within nursing curricula these two great knowledge ideologies tend to be separated – perhaps because those who support the one rarely support, and probably would find it difficult to teach, the other. This is unfortunate because we should be bringing them together as different facets of evidence in practice and generating a dialogue between them. But the two most neglected aspects of evidence in practice are evidence *about* practice, and the *client*'s evidence base. With regard to the latter there is a very substantial body of work in sociology about how prospective or actual patients and clients think about health, illness and care (see, for example, Radley & Billig, 1996). Some reference is made to it and there is some interest from researchers – for example, Rycroft-Malone *et al.* (2004) argue that knowledge from patients, clients and carers is one of the four important sources of evidence for practice. However, within much of current practice it has lost the conceptual depth and clarity of the sociological literature and has been conceptualised as 'the patient experience', which is largely captured through routinised satisfaction surveys and reviews of complaints, and used by managers as evidence of good practice (or not).

With regard to evidence *about* practice, at the very beginning of this chapter it was argued that we have very little primary evidence about practice – about what it looks like; where and how we might have expected this body of evidence to grow and it has not. Indeed, simulated environments have been developed to serve as adequate proxies. There may be a number of reasons for this. It is often difficult to get ethical permission to record – using audio or video – actual practice. While this is understandable, it is interesting in a country where CCTV cameras follow your every move! The rich data which recording produces sets a real challenge to researchers both in the time it takes to analyse and in publishing accounts which contain enough of the primary data. But the vision of Taylor and White (2000) of a workforce continually recording and analysing their practice is a compelling one. Traynor *et al.* (2010) infer that a parallel strategy may be useful – that of asking practitioners to produce narratives about their practice and then subjecting these to the sort of rigorous discourse analysis which Taylor and White use for primary data. Certainly the health visiting knowledge base lacks a database of rigorous narratives about practice which are available for analysis and debate.

A central theme of this chapter has been that all knowledge is contestable. While the example of the anti-vaccination websites might constitute an extreme example of the rejection of scientific evidence, it is clear from the case studies that in everyday practice all kinds of experience and knowledge are brought forward alongside science as justification for practice. As May (2006) notes:

> Struggles about the facts – what they are, who they are made and recognised by, and how they are played out in different kinds of political arena – are ubiquitous in the conditions of late modernity. (p. 513)

## Summary

Practising in a post-modern world, therefore, demands of the practitioner a sceptical and sophisticated understanding of the different forms and sources of knowledge generation from the national to the local level. However, a further key theme of the chapter is that the practitioner need not, and indeed should not, grapple with these issues alone. Practice takes place in a complex social environment of networks, 'authorities', experienced practitioners, clients' experience, etc., all of which can be effectively utilised as rich sources of knowledge. The effective practitioner, it can be argued, is not one who adheres to simple models for practice derived from any source, but rather is one who works with colleagues in examining, contesting, negotiating and exploiting all the knowledge sources available to her – and contributes generously to the knowledge needs of others.

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## Appendix 1  Activities for Chapter 1

### Activity 1.1

**Analysing health visitor – client interactions**

With a colleague, role-play an interaction with a health visitor and client. Tape record this and listen and analyse the conversation. Focus on the detail of the words and silences and what they are achieving. What can you learn from this? There is some excellent guidance in Taylor and White (2000).

### Activity 1.2

**Finding the supportive evidence**

Identify two common health visitor interventions and provide the evidence which a commissioner would use in deciding whether to pay for them. Do you find the evidence convincing? If the commissioner had to choose between them, which one should take priority?

### Activity 1.3

**Practising evidence-based medicine (EBM)**

Identify what is the best treatment for sore nipples by completing the table below using the steps of EBM.

| Steps to EMB | Example |
| --- | --- |
| Identify the need for information and formulate question | What is the best treatment for sore nipples? |
| Track down best possible source of evidence to answer question | |
| Evaluate it for validity and clinical applicability | |
| Compare the evidence you have with the practice you have seen. Does it support it? If not, how would you argue for a change in practice? | |
| How would you evaluate the outcome? | |

### Activity 1.4

**Assessing the effectiveness of your practice**

Identify a question about the effectiveness of health visiting practice. Search the organisational websites such as NICE (http://www.nice.org.uk/); SIGN (http://www.sign.ac.uk/) or Cochrane Collaboration (http://www.cochrane.org/) to collect your evidence. How easy are they to use to find the evidence? Did they help you answer your question?

### Activity 1.5

**Identify and evaluate the evidence base**

Think of an alternative therapy for example, reflexology and explore the evidence base and if a client asked about the effectiveness of this treatment what would you tell them?

## Activity 1.6

**Implementing research evidence**

Using the categorisation of barriers as suggested by Gerrish (2003) (i.e. factors relating to the organisation, the way research is communicated; the quality of research, and the practitioner) explore the barriers in your own practice context.

## Activity 1.7

**Use of guidelines**

Identify in your practice a guideline currently in use. Discuss the sources of evidence that underpin it. You might like to use the 'The AGREE Collaboration. Appraisal of Guidelines for Research & Evaluation (AGREE) Instrument' (available from: www.agreecollaboration.org) for appraising the quality of the guideline, asking such questions as: has the overall objective of the guideline been described?; have the clients' views and preferences been taken into account?; has the criteria for selecting the evidence been clearly described?