Managing Knowledge in Health Visiting

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Introduction

The mantra of evidence-based practice (EBP) 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 EBP be an important ideal? When a practitioner intervenes in a client's life, the outcome should be that the client is significantly advantaged. In health visiting, that advantage can take many forms: the client can have more and better knowledge, they might feel more capable of managing their affairs, they might better understand and be able to cope with difficult thoughts, feelings, and actions – the list is extensive. 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 misled or mis-sold! However, when the state decides to invest its resources in the provision 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, every health visitor must be able to account for what she does and doesn't do to the Nursing and Midwifery Council (NMC), if required.

Chapter 7 explores how health visiting might be assessed, measured, and evaluated. The emphasis in this chapter 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? What sort of knowledge do 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. We might categorise knowledge by type. For example, Carper’s (1978) categorisation of knowledge as empirical (largely derived from science), aesthetic (or artistic), ethical, or personal is well known and is 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 engage in swimming and other water sports without ever having been to a swimming pool, but I can only say I know how to swim if I can do so. In the former case, I can probably explain how I came by the knowledge, but in the latter, I may not be able to explain how I know how to swim or what I am doing when swimming; 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 we might define knowledge than about the question of what sort of knowledge health visitors could and should be using – and who says so – and what sort of knowledge they are using. There is substantial controversy here, 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 and on 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 EBP, which is currently the dominant knowledge protocol in the National Health Service (NHS), and try to establish what forms of knowledge it valorises – and what forms it discounts – and why. The chapter will also look at reflective practice (an alternative protocol for generating and managing knowledge about practice that is supported by many institutions and individuals within nursing) and at the idea of knowledge being generated and managed within communities of practice (CoPs) (an idea that is popular in education and some other public sector areas); each of these can be viewed as a social movement, with enthusiastic advocates trying to ‘capture’ the support of key health organisations and institutions, as well as the hearts and minds of individual practitioners. We will also look at what is known about the types and sources of knowledge that healthcare practitioners actually use in practice – which prove 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. But defining or describing health visiting is not simple. If we start by looking at what the government thinks it is, then we must recognise that, in the UK, health visiting is practised in four nations (involving two assemblies and two parliaments), each of which has a different idea of what health visitors should do, and to what ends. We then have the view of the
profession as a whole, which is expressed through various collective means. But when we try and look at the actual practice of health visiting, we find that there is a lack of shared knowledge about what goes on in the very many interactions which lie outside of the public domain of hospitals and clinics. Despite these difficulties, the next two sections will look briefly at the contexts in which health visitors manage knowledge.

Defining health visiting practice

The Department of Health commissioned a review of health visiting, *Facing the Future* (DH, 2007), aimed at highlighting key areas of health visiting practice and skills. This is not a wholly 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: §1). 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), one that is supported by families and communities (i.e. acceptable to the users of the service), and one that is attractive enough to secure a succession of new entrants (i.e. it has 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 recommends that the relevant research findings to support a 21st-century child and family health service 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 EBP 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, and the effectiveness of early intervention, 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 is not specifically about the evidence or knowledge base of health visiting and how it might be used, many of the relevant themes in debates about EBP 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?

These questions all remain relevant, and health visiting commissioners, managers, and practitioners attempt to answer and reconcile them at all levels of practice. However, at the highest level of government, where the health visiting service is created and defined, significant changes in the knowledge base have been used to refocus the purpose and practice of health visiting. The new knowledge largely stems from the neurosciences and developmental psychology, and not from within health visiting itself, and is concerned with how and when brain development occurs. It underpins the premise that early intervention in every child’s life – starting from conception – to optimise brain development is a key plank in strategies aimed at improving educational attainment, reducing crime and antisocial behaviour, reducing obesity, and improving health. Perhaps the most robust expression of what might be called the ‘early intervention movement’ is the first of two government reports by the Labour MP Graham Allen: Early Intervention: The Next Steps (Allen, 2011a). The context of Allen’s report is the UK fiscal deficit and the Conservative/Liberal Democrat coalition government’s agenda of addressing this deficit by making substantial reductions in public spending. Indeed, Allen’s second report (Allen, 2011b) is entitled Early Intervention: Smart Investment, Massive Savings. In order to emphasise the need for early intervention, his first report starts with two images of a child’s brain: one from a ‘normal’ child and one from a child who has suffered significant deprivation in early childhood. The differences in neurological development are obvious and striking, even to a lay reader, but the important conclusion from the evidence is that such damage is caused by poor parenting, is largely permanent, and is the cause of significant problems in the child’s behaviour, which both impede the well being of the child and damage society. These are claims which stem from research that is not easily accessible to health practitioners or their clients. It is also research that is ongoing, with claims being contested and disputed: work by Noble et al. (2015) identifies family income and parental education as being the prime correlates to neurological development, for example.

While the claims about neurological development in Allen’s first report remain deeply contested, they have been accepted at the highest levels of government, so the questions of what to do and who will do it become acute. In terms of what to do, policy makers look to evidence-based, precisely defined packages of action that have been robustly evaluated to provide the most secure way forward. Allen (2011a: ch. 6) identifies 19 programmes (e.g. the Family Nurse Partnership (FNP)) which he believes should form the basis of early intervention because of their targets and proven efficacy. Such intervention packages have been developed in many countries, often by private agencies, and need either to be incorporated into ‘traditional’ ways of working – or to replace them (see Chapter 5). So we now have complex bodies of evidence about both a perceived problem and a systematic solution used to prescribe practice. Such packages do not just say what must be done but also define how it must be done, and we will look at some of the issues raised by them in a later section. In practice, the responses to the early intervention imperative
have varied between the UK’s nations, each having to answer such questions as: To what degree should intervention be targeted, and at whom? Who should carry out the intervention, and do they have the capacity and capability? and How should we ensure that the work is carried out consistently and effectively?

The Department of Health in England responded with the creation of a revitalised and expanded health visiting profession. The Health Visitor Implementation Plan 2011–15 (DH, 2011) proposed that health visitors provide a four-level service, with services allocated according to the needs of the child and family. There was also to be increased recruitment and training, including an emphasis on leadership development. While this was welcomed by the profession, there were dissenting voices. The Lancet, for example, posted a commentary by a public health doctor who supported the emphasis on early years intervention but argued that ‘This policy takes a narrow approach, concentrating investment in expanding professional capacity in a service which can only provide part of the solution’ (Buttivant, 2011). And the Department of Health itself commissioned a major literature review (Cowley et al., 2013, 2015) to try and identify evidence to support the policy. In the other nations of the UK, different approaches were taken. In Scotland, for example, health visiting as such remained comparatively marginalised until in 2013 the Chief Nursing Officer required that ‘the current Public Health Nursing (PHN) role… should be re-focused and the titles of Health Visitor and School Nurse be reintroduced’ (Moore, 2013: summary). The health visitor was to work with children aged 0–5 using ‘targeted’ interventions. Part of the rationale for the change was evidence that the public understood and preferred these ‘traditional’ titles. In Wales and Northern Ireland, too, there was increased focus on early years, although local policies reflected local traditions and ambitions. So, while no-one was disputing the knowledge base of an early intervention strategy, there have been considerable differences in the way this translates into policy for practice. High-level policy makers have their own ideological commitments and knowledge of local history, which mediate between knowledge and policy (for practice). Research rarely dictates policy, but it does inform it.

In England, the three key policies of early intervention, evidence-based pathways, and health visitor leadership remained throughout the defined years of the Health Visitor Implementation Plan 2011–15. The National Health Visiting Service Specification 2014/15 (NHS England, 2014) continued to make explicit reference to the evidence base of the Allen (2011a) report: ‘Research studies in neuroscience and developmental psychology have shown that interactions and experiences with caregivers in the first months of a child’s life determine whether the child’s developing brain structure will provide a strong or a weak foundation for their future health, well-being, psychological and social development’ (NHS England, 2014: 1.1.3 p. 5). The four levels of intervention remained in place and explicit reference was made to care pathways. Additional specifications for practice come in the form of required assessment protocols. This national specification is reflected in local practice handbooks. As an example, a practice handbook for health visiting team members published in 2012 by the Shropshire County Primary Care Trust (PCT) (Langford, 2012) ran to 43 pages of prescription concerning when visits were to be made and what should be done in each. The document is rich in references – ‘Evidence/Rational’ (sic) – but these are largely not to original research but to recipes for action; for example, it
specifies 10 assessment tools. So, by 2015, the idea that health visiting was an innovation technology rather than an individualistic practice was well established, at least in England and some other parts of the UK. Health visiting practice was conceived of as something which could be prescribed to solve defined national problems. Such policy prescriptions are not confined to health problems but can also be found elsewhere in social care, education, and the justice system – usually in areas where governments are particularly concerned to achieve particular outcomes. For example, a similar approach was taken in the case of another perceived threat to society – (Islamist) terrorism – where schools were encouraged to use packaged interventions designed to prevent the radicalisation of children.

From the point of view of the profession as a whole, the resurgence of health visiting was seen as an opportunity to raise its profile and consolidate its gains. A new body, the Institute of Health Visiting (iHV), was founded in 2012 with the avowed core purpose of raising ‘professional standards in health visiting practice … By promoting and supporting a strong evidence base for health visiting and offering CPD [continuing professional development] and professional training’ (iHV, 2012). In other words, it sought to improve practice not by telling health visitors what to do but by improving their knowledge and skills. A central part of the work of the iHV is therefore the development of various ‘tools’ to help practitioners enhance their practice and guide them through an increasingly complex world of guidelines, pathways, programmes, and protocols and an expanding research base involving many disciplines. These tools are not ‘prescriptions’ of good practice but rather provisions of access to learning opportunities, case studies, publications, and Web-facilitated channels for practitioner–practitioner and practitioner–expert interaction. You could characterise this as a ‘bottom-up’ process of using evidence to improve practice, in contrast to the ‘top-down’ process of prescription based on policy, but as we shall see, both models remain part of the EBP ideology. Within EBP, there is also a substantial body of work exploring how knowledge management fits into the everyday realities of practice. So, what do we know of actual practice in health visiting – its opportunities and constraints?

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

Against the background of the government seeking to prescribe health visiting practice as a remedy for society’s ills, it is important to review what is known about 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 tacitly by those who do it – about the realities of everyday health visiting. That it is rarely seen as a valid subject either for scientific research or for practice narratives is also true of a similar practice: social work. In the case of social work, however, we find an interesting research programme conducted by Harry Ferguson (2008, 2010), which aims to bring to light the essential nature of its practice. Ferguson 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). Ferguson is trying to refocus on actual practice; he 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 negotiating home visits with disobliging clients is focused on social workers working in child protection, but it must resonate with all practising health visitors. The way in which he conceptualises the home visit is of particular interest: 'All homes and the relationships within them have atmospheres and how professionals manage stepping into and negotiating them is at the core of performing social work and child protection and managing risk effectively' (Ferguson, 2010:1109).

So how would the ever-useful Martian sociologist describe health visiting practice? They would be bound to notice that it 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. The skills involved in talking are so deep that, just like with walking, they are not normally subject to constant ongoing analysis. Most of us do not consciously think about how to walk – we just do it. But talk is the health visitor's key performative skill, and because doing things with talk is a primary skill, health visitors need a more profound understanding of how it works – just as a ballet dancer would need a more profound understanding of how her body works than would the person taking the dog for a walk. Of course, as well as talking, health visitors also make notes and write reports, but this is still doing things with language in order to interact with others.

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 representatives are conducted.

(Drew & Heritage, 1992: 3)

Health visiting is one such profession, and a number of studies have been conducted within that sociological tradition (see, for example, Dingwall & Robinson, 1990; Heritage & Sefi, 1992). The focus is on making available what happens in the
‘private’ world of the home visit. Cowley et al. (2013), in their extensive review of health visiting literature, reinforce the centrality of the home visit in health visiting, arguing that it is one of the three key components of practice (the other two being the health visitor–client relationship and health visitor needs assessment).

Health visitors also work in clinics, general practitioner (GP) surgeries, children’s centres, church halls, social services departments, and so on. 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 (2008, 2010) work. 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 EBP. They further assert 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:

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 discussion in this section draws on concepts and evidence from a number of sources, which can be used as vehicles for thinking about health visiting. But, as Peckover (2013) points out, we do not have a coherent body of research on the reality of health visiting practice. Cowley et al. (2015: 473), in their review of the literature, acknowledge that their work has revealed the concepts and theories underlying health visiting but not ‘the forms of practice that exist in reality.’ We know what health visitors aim to do but not what they actually do. Peckover argues that this lack of a ‘meta-narrative’ for health visiting is both a weakness and a strength: a weakness because it struggles to explain itself to policy makers and to establish a strong base in higher education, but a strength in that it seems to be able to adapt to changing demands. Given the complexity of health visiting, we need to look at the top-down prescriptions for practice and ask, first, how we can reconcile the practice prescriptions of the policy makers and managers with what we know about what Ferguson calls ‘the fluid, squelchy nature of practices….’ (Ferguson, 2008: 576),
Evidence-based practice

In order to understand the importance of the EBP movement, you need to take yourself back in time about 30 years. Back then, doctors and nurses did what they had been taught to do; experienced practitioners became teachers and passed on what they had learned in their years of practice. There was almost no reference to research findings, but lots of reference to both ‘facts’ and ‘proper ways of doing things’. That is not to say that there was no innovation: new drugs became available and there were surgeons trialling procedures we now take for granted, such as joint replacements. But the idea that the way to do things in healthcare was passed on from previous practitioners was prevalent. So the idea of EBP was really revolutionary – and there was considerable opposition to it.

What has come to be known as EBP had its foundations in the evidence-based medicine (EBM) movement, which started in the UK in the early 1990s. The NHS was interested in funding and promoting research, and there was a research infrastructure. However, 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 – over the fact that, within medicine, treatments which had been proven to be effective were not being used, while treatments which had been shown to have no or little beneficial effect continued to be used. This was despite considerable efforts to change practice; for example, the Getting Research into Practice and Purchasing (GRIPP) project, 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.

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 motivation 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 the heart of EBM is the idea that it 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. Activity 1.1 will help you to explore the evidence around interventions delivered by health visitors.
Sackett et al. (1997) define EBM as consisting of five sequential steps:

1. Identifying the need for information and formulating a question.
2. Tracking down the best possible source of evidence to answer that question.
3. Evaluating the evidence for validity and clinical applicability.
4. Applying the evidence in practice.
5. 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 for 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, a 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 a 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 both speech and friends? The research evidence on cost-effectiveness may not fully acknowledge the social issues surrounding the clinical problem. EBM 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 that clients would make, which might be equally rational for them. Activity 1.2 will be helpful in gaining some experience in the practice of EBM.

EBM defines the best source of evidence as the randomised control trial (RCT), or better still a group of RCTs, which can be systematically reviewed and analysed. Early on in EBM, the idea was that clinicians would get involved in all stages of the 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. This can be defined as the simple linear model of practitioner-based EBP, which is still espoused by some. But, in practice, a cadre of specialist and largely university-based ‘experts’ has grown up to manage the search for and evaluation of the scientific evidence and to produce specifications for practice, which are then disseminated through various fora. These specifications are known by a number of names, including ‘clinical guidelines’ and ‘care pathways’, 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 largely depends on the importance of the topic and the costs of that area of practice. The contrast between the propositions found in EBM – that individual practitioners should evaluate the evidence and change their practice accordingly and that evaluating evidence is an expert skill requiring considerable resources – remains important. Research evaluation is a key component of many healthcare curricula, but the degree to which it might or should be a key component of practice remains contested.
So, 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, its initial proponents did not suppose that the use of research evidence
would entirely override clinical judgment, 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 (Glasziou et al., 2004).

Early EBM was an enthusiasts’ movement, but a whole industry has since grown
up around it, 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 aca-
demics. 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 develop-
ment of evidence-based policy making in many spheres, certainly including health.
A range of organisations have been established to support EBM and fund research
designed to feed directly into practice, including the Cochrane Collaboration (which
exists to produce systematic reviews), the National Institute for Health and Care
Excellence (NICE), and a number of university-based units, such as the University of
York Centre for Reviews and Dissemination. Within government-funded research pro-
grammes, there has been an increased emphasis on ‘impact’, in addition to validity,
reliability, and so on. Activity 1.3 will help you to explore elements of effective health
visiting practice.

Third, there are the nurses, social workers, and teachers themselves. Although
there was (and is) some concern within medicine that EBM would erode the impor-
tance of clinical judgment, in these professions the idea of developing a strong
formal and recognised evidence base was seductive. A few decades ago, the the-
ory that a profession needed to have certain characteristics became popular in
occupations such as nursing, social work, and teaching. 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 regula-
tory body – now the 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 will have – and use – an extensive evidence base gleaned 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 the inclusion of nursing in multidisciplinary research – and indeed there has been a very rapid expansion of nursing research, although much of it remains small-scale (Cowley et al., 2013, 2015).

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 consumer’s 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 1.4 will help you to explore this 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 panic. 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. When doctors undertook operations for glue ear with no proven benefit, 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 to be the rise of managerialism, the increased use of audit, and an increased emphasis on research and development (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 in making it a worldwide phenomenon – is the exponential growth in information technology. Without the ability to search digital 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; it is commonplace now to describe the movement as EBP. In 2008, NICE was given a remit for work in public health, including disease prevention and health promotion. Changes have thus had to be made to the way in which EBP operates even within the heartland of medicine. Kelly et al. (2010) offer an ‘insider’s’ perspective on some of these challenges as they work within NICE on the public health agenda – which of course goes beyond healthcare into education, social welfare, and so on, and
depends on disciplines such as psychology, sociology, and anthropology. In moving into new areas, institutions such as NICE have had to travel beyond biomedicine, with its relatively simple causal models, and engage with very different academic and practice disciplines with 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. Few such trials are conducted outside of biomedicine, and 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 subjected:

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 cannot be acknowledged then much of the knowledge of these disciplines will be disregarded as being of lower status or as 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 (e.g. developing logic models to manage methodological pluralism) and trying to use experts in the field to generate consensus.

Issues underlying the use of primary research were highlighted in 2015 when an extensive study by leading academics within psychology published data showing that ‘many psychological papers fail the replication test’ (Open Science Collaboration, 2015). The ability to repeat an experiment and get the same results is a cornerstone of the scientific method, so clearly this called into question the original results. This study is part of an ongoing debate about how we conduct not just psychology but all science and whether issues such as a pressure to publish positive results skew the literature. A key contribution to the debate (Ioannidis, 2005) is entitled ‘Why most published research findings are false’ and a commentary by Richard Horton (2015) in The Lancet argues that the situation is deteriorating. Horton suggests that many aspects of research culture are contributing to ‘bad science’: ‘The apparent endemicity of bad research behaviour is alarming. In their quest for telling a compelling story, scientists too often sculpt data to fit their preferred theory of the world’ (Horton, 2015: 1380).

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 titled Acting on the Evidence (Appleby et al., 1995), produced by the University of York. This document summarises EBM 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). It raises a number of issues. First, it argues that insufficient account is taken by EBM of the uncertainty of clinical practice. Second, it says that it is impossible to generate information on 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)

The current landscape of EBP

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 those who make theoretical objections to EBM, and particularly to its export into other areas. This is 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 will be described shortly. 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 EBP doesn’t work and has developed into an industry devoted to what has become known as ‘implementation science’. Third, there are those who embrace the concept of EBP but who want to redefine the notion of what counts as evidence – largely because it doesn’t seem to resonate with the realities of their practice. Nursing in particular has criticised the technological model of knowledge used in EBM, and has argued that the linear model of research evidence utilisation may not be wholly appropriate to nursing 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). He seeks first to establish common ground, suggesting 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 with Chalmers 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, he goes on to argue, first, that the methodologies favoured in EBP – the RCT 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 an argument that all forms of research are socially constructed and that all research is generated and read within a particular context of experience and judgment.

Second, he argues that Chalmers, and by extension other EBP proponents, believes 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 judgment to valorise the external evidence. He rejects the idea that RCTs should have a privileged status above other kinds of knowledge and be used to resolve disputes.

Third, he argues that judgment is fundamental to good practice because ‘practice is necessarily a matter of judgment, in which information from various sources (not just research) must be combined’ (Hammersley, 2005: 88). He asserts that that the role of professional judgment may differ between different forms and arenas of practice and argues that downplaying the importance of professional judgment in favour of research evidence could, in some contexts, reduce the quality of practice rather than enhance it.

The dialogue continues with Chalmers’ (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 EBP:

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 not the only critical commentator of the EBM movement. For example, Kerridge et al. (1998), writing from a basis in health ethics, argue that EBM has serious ethical flaws. First, 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, it is difficult in EBM to decide between the competing claims of different stakeholders. While EBM potentially downgrades the power and authority of individual doctors, who should replace them in the power position? Is it managers? Is it patients? And if the latter, how can that be managed? Third, EBM interventions may transgress common morality because they are concerned only with evidence of efficacy. Kerridge et al. raise issues about the ethical status of trials: on the one hand, there are now strict criteria which might be seen as ‘good’, but on the other, these criteria shift over time. They 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 EBM 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 can be somewhat bewildering or even daunting to lay (i.e. non-research) practitioners. But they are important in terms of practice. Kerridge et al. cite Dr Michael Wooldridge, then Australian health minister, who said 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). By implication, governments will only support those activities which can be shown to have an effect – and an effect which the government wants.

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 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 these 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 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 & 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: §57)

These authors studied barriers to change and proposed that they occur at different levels: the nature of the innovation itself, the individual, the social context, the patient, the wider context – really, just about anything. 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 factors 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 research is conducted and the type of knowledge it generates may be important. The traditional model of EBP, as we have seen, assumes the superiority of acontextual, disembodied technological knowledge and a linear model of utilisation. Gerrish argues that other research models, such as the enlightenment model or action research, might have substantial value. However, the practitioners of implementation science have pursued the idea that barriers to implementation must be overcome and have generated a whole research domain dedicated to exploring not what ought to be done but rather how to ensure that it is done in practice. This work has become another ‘industry’ supporting healthcare, generating its own journals, conferences, and research units. The aim of these practitioners is to create an effective implementation infrastructure. This represents a substantial step beyond the work of the EBM pioneers, who used the language of promoting and disseminating research, assuming that all right-minded practitioners could and would alter their practice in response. Implementation science acknowledges the complex world in which practice takes place and seeks to investigate how programmes can be designed and presented such that they can be implemented in practice. Activity 1.5 explores barriers to implementing research evidence in health visiting.

There is a substantial constituency in nursing which has embraced the concept of EBP, and a supportive 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 (important exceptions in the context of health visiting include Elkan et al. (2000), who systematically reviewed the evidence on the effectiveness of domiciliary health visiting, and Cowley et al. (2015)). Judith Parker, 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 (Parker, 2002), 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 that its time has come as the result 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
Managing Knowledge in Health Visiting

... study titled ‘What counts as evidence in evidence-based practice?’, suggest that nurses can reconceptualise EBP 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, and so on. The authors 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 base 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 levels. However, before we move on, it may be helpful to note an important paper which defines the sources of knowledge currently used by nurses and illustrates some of the themes raised in the last two sections. Estabrooks et al. (2005) explored the sources of nurses’ knowledge through two major ethnographic studies in hospitals in Canada, finding that nurses categorise them into four broad groupings: social interactions, experiential knowledge, documentary sources, and a priori knowledge. Importantly, the category of social interactions dominates 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 have a hierarchy of knowledge, but it is 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, we examine four ‘case studies’ which look at how evidence is used for decision making in practical situations (although not all of them are defined as such by their authors). The first is at the national policy level, the second describes the development of local guidelines by GPs, the third looks at the use of protocols by nurses in a diabetic clinic and a cardiac medical unit, and the fourth looks at the practice level within primary care, mainly focusing on GPs and practice nurses.

Case study 1.1: Introducing new technology

May (2006) examined the potential introduction of telehealthcare systems and explored how policy makers and researchers engaged with each other over this practical issue. The data in May’s case study are derived from a series of public and private meetings held between 1998 and 2004 and from 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 needed the robust evidence that RCTs and systematic reviews could provide. However, as time went on there was increasing dissatisfaction with the use of 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; emphasis in original)

The trials were disparaged for one of their defining characteristics: they are acontextual, in order that they are generalisable, so by definition they 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 conduct clinical trials – they got funding to do them and published their results, which could lead to further funding – the
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 time of the meeting in 2004, clinical trials had ceased to be of interest and managers and policy makers were looking to work with service providers to set up local demonstration projects. Interestingly, the providers themselves had moved away from providing telehealthcare, which involves clinical practice at a distance, to telecare, which involves safety systems that support people in their own homes; there was thus a commensurate reduction in the need for research evidence on clinical safety and levels of risk.

May (2006) identified a number of issues in the organisation and reception of knowledge produced within a Health Technology Assessment model of formal quantitative knowledge generation. He argued 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: 528–9)

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

Case study 1.2: Creating guidelines in primary care

McDonald & Harrison (2004) looked at the process of developing local clinical guidelines on the treatment by GPs of patients with actual or potential heart disease. At the time of their study, the GPs were linked into a Primary Care Group (PCG) (PCGs were later replaced by PCTs, which have since been replaced in turn by commissioning groups of GP practices). This 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 was 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, used to treat or prevent heart disease, are relatively cheap drugs, but the number of potential recipients is large, so their overall cost can 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

(Continued)
Case study 1.2: (Continued)

of GPs. This group was charged with making recommendations to all the GPs about managing patients with cardiovascular disease.

The first part of the work focused on developing a statin prescribing guideline. The group used a number of sources of evidence, including the results from several 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 a high risk, with a number of GPs giving examples from their own patient populations; 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 whom they believed ‘deserved’ statin therapy, and the pharmaceutical advisor’s advice was not taken. Further debates included one about what 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. 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 & Harrison (2004) were interested at the start of the study in whether guidelines were the tools of management or of a professional elite. Their conclusion was 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. However, McDonald & Harrison (2004) argued that while these
guidelines did not seem to alter practice, an increased government focus on guidelines subsequent to this study may have made adherence more likely. 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 1.3: Protocol-based decision making in nursing**

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 noted by the authors, standardised care approaches can have a variety of names, including ‘protocols’, ‘care bundles’, ‘care pathways’, and ‘clinical guidelines’. However, they all have the similar aim of standardising practice through the provision of a ‘best care’ recipe. This is intended to ensure that ‘best care’ is given but also to simplify decision making for practitioners. At each of the research sites, a number of protocols were available, although interestingly, a number of them were put away in the office.

The authors found that there were four major sources of information used in decision making: interaction with colleagues, standardised care approaches, instinct, and interaction with 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 that nurses would often look to senior or more 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 conditions and that any protocol would have to be ‘flexed’ to accommodate this. In general, the knowledge derived from the protocol became ‘intertwined with experience’ and indistinguishable from it in everyday decision making. Where protocols were thought to be useful was in teaching, in ‘new’ situations, and in supporting the nurses’ decision making post hoc, in case of a query.

Importantly, the study noted that nurses make a lot of decisions, on subjects ranging from medication and treatment to time management, and that protocols could not possibly be available for every one. It found that:

(Continued)
Case study 1.3:  (Continued)

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 1.4: Knowledge management in primary care

Gabbay & le May (2004, 2010) 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 in how – and if – this was managed at the level of the individual practitioner and/or the level of the collective. They were also interested in 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 good advice – the local PCT pharmaceutical advisor was considered such a reliable source. In one practice, a local protocol for heart failure was generated. The doctor who was asked to develop it used the local hospital guidelines (where the cardiologist was another respected ‘authority’), integrating them 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 & le May (2004) coined the term ‘mindlines’, in contrast to ‘guide-
lines’, to convey the way in which practitioners use such sources, as well as
their training and experience, to generate personal internalised tacit knowl-
edge that guides their practice. These ‘mindlines’ are not static but will be
progressively negotiated and changed through various interactions (e.g. prac-
tice meetings, discussions with colleagues, interactions with patients). They
argued that, if research is to affect practice, it will be via these processes and
not through an idealised model of rational adoption. Further, they drew atten-
tion to the importance of locality: clinicians practice in a particular context of
colleagues, managers, and histories. Consequently, they proposed 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)

These brief summaries cannot do justice to the richness of data and analysis
contained in each case study, which 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? How does a group of people on the ‘front line’ manage its knowledge base? This literature does not support the concept of a linear model of research
being unproblematically imported into practice. But, while a debate raged about
the theoretical, political, and practical aspects of EBP, the actors in these cases
simply went about their business in ways that seemed sensible to them and 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
& Shakespeare 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 proto-
cols when describing their decision making. This study, which is based on nurses’
accounts of their practice, describes a dichotomy between technical and indeterminate knowledge. Clearly, the former relates to formal sources of knowledge, including protocols, whereas the latter is related to terms such as ‘instinct’ and ‘intuition’. The nurses’ descriptions of technical knowledge – guidelines, manuals, protocols, and evidence – acknowledge 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 1.6 enables you to explore the use of guidelines in practice. Whether protocols, guidelines, care pathways, and so on are locally or nationally constructed, they will be mediated by the practitioner and, Hutchinson & Shakespeare (2010) argue, by the context in which the practitioner is operating.

A further study (Kyratsis et al., 2014) of the use of evidence in practice focused on managers’ decision making. This study was carried out in nine NHS hospitals in England and focused on decision making around infection prevention and control. The authors found that a variety of sources of evidence were used, including research, local trial data, and peer reports. However:

different forms of evidence were not simply accessed and applied ‘at face value’ by the decision-makers. It was necessary to continuously interpret and (re)construct the evidence in some way, according to one’s own professional identity, organisational role, team members and audience, and organisational objectives. Far from being merely technical or ‘scientific’, we found this process to be highly iterative and ‘messy’. Many questioned what counted as evidence.

(Kyratsis et al., 2014: xxiii)

A key part of their finding was the importance of professional identity. Managers from different professional backgrounds used and valued sources of information differently. The authors proposed that three ‘evidence templates’ were used: biomedical-scientific, practice-based, and rational policy. Doctors valorised the biomedical-scientific way of making sense of evidence, nonclinical managers mainly used the other two, and nurses used all three. The authors concluded:

An evidence-based management approach that inflexibly applies the principles of evidence-based medicine, our findings suggest, neglects how evidence is actioned in practice and how codified, systematised knowledge generated from research inter-relates with other forms of evidence that are also valued by decision-makers.

(Kyratsis et al., 2014: xxiv)
So where does this leave us in terms of EBP? Clearly, the issues are much more complex than the pioneers of EBM thought, and the idea of just ‘disseminating’ research findings and seeing practice change was unrealistic – as was the idea that frontline practitioners had either the time or the skills to review complex bodies of knowledge before deciding what to do. However, the pressure to ensure that expensive research findings changed practice remained. As evidence mounted of the ‘failure’ of EBP to achieve the required outcomes, especially in areas of complex human activity, a new way of approaching the problem became prominent: the idea of ‘disseminating’ research findings gave way to the concept of ‘implementing’ them and a new area of systematic research activity came into being, known as ‘implementation science’. This is devoted to exploring why research findings are not translated into the sort of practice that achieves desired outcomes and how the gap can be successfully bridged.

One example of the changing emphasis can be seen in the Scottish Intercollegiate Guidelines Network (SIGN). SIGN has been producing evidence-based national clinical guidelines for best practice since 1993. Since 2009, it has focused on using research on implementation to improve the use of these guidelines, with the aim of becoming a world leader in guideline implementation. El-Ghorr et al. (2011) describe how SIGN generated ideas on effective implementation support activities by engaging with users, implementers, and stakeholders. A key part of the strategy is the involvement of patients as champions for change, initially through patient groups and voluntary organisations.

Two concepts are particularly important in implementation science: fidelity and adaptation. Fidelity is really about control. The argument is that if we develop an evidence-based intervention and test it in practice and show that it works, then in order to replicate that effect elsewhere we need to control as much of the intervention as possible so that it is delivered ‘with fidelity’ to the original. We saw earlier that Allen (2011a) was enthusiastic about the idea of precisely defined interventions – such as the 19 pathways of early intervention which he wanted to see implemented – and argued that the greatest barrier to achieving the required outcomes was lack of fidelity. Of course, this idea is not new: it closely resembles the sort of retail franchise arrangements which we see in every high street. And, just as in retail, these specified interventions will be owned by a corporation or a university or a practice organisation which franchises both the right to replicate the practice intervention and a range of accompanying training and evaluation programmes. The development of franchised programmes is now big business.

Wiggins et al. (2012) of the Childhood Wellbeing Research Centre have, on behalf of the Department for Education, produced a very useful review of how such evidence-based programmes are to be implemented. They assert that ‘Evidence suggests that a carefully planned and well-resourced implementation is key to better outcomes and programme success’ (Wiggins et al., 2012: 4). The process to be followed for a successful programme implementation is defined, following Fixsen et al. (2009), as:

- exploration and adoption;
- installation;
Throughout these stages, careful attention must be paid to the development of new systems, policies, and practices, the training and coaching of staff in new ways of practice, and the establishment of monitoring and evaluation systems. It is the totality of all these systems and policies together which is sometimes called the ‘infrastructure’ of implementation. Throughout this process there is likely to be considerable contact with the organisation holding the franchise, because ‘Programmes have been found to be more effective if the local model remains faithful to the original programme design’ (Wiggins et al. (2012: 13). But, of course, this is extremely difficult, as ‘the core components have to be built into the daily performance of thousands of practitioners in the diversity of provider organisations functioning within different types of systems’ (Wiggins et al. (2012: 13). We saw earlier (and you will know from your own experience) how complex that performance is. So, a contrary view is that programmes will be most successful if they are adapted to the local context, and, of course, it is the practitioner – individually and collectively – who has the knowledge about local clients, local practices, and local histories and value systems necessary to inform any adaptation strategy. And as Fixsen et al. (2009: 532) recognise, ‘In human services, the practitioner is the intervention’. So, each health visitor’s knowledge of her own practice and how it might interact or conflict with new ways of working is important. However, this is not to suggest that a ‘pick and mix’ approach to a programme will be effective; nor will the use of elements of one programme in the context of a different client group. Health visitors involved in such programmes need to be clear about how it was developed – and why – and to be alert to ‘mission creep’. Cowley et al. (2012) point out that such programmes are targeted at specific needs, whereas health visiting offers a universal service, and ask whether the two ways of working are compatible.

Whatever the difficulties, practitioners have to function in the complex world of EBP, including implementation science. While they may not be required to understand the totality of the research underpinning their practice directly, it is important that they understand the nature of the vehicles now used to package research for them: guidelines, research reviews, programmes, protocols, and so on. Two useful concepts are reliability and relevance. Some sources are highly reliable – a guideline from NICE, for example, will be based on the highest quality of research evidence expertly evaluated. However, a guideline locally constructed by colleagues in response to local needs may be more relevant. A further important concept is risk. The consequences of not following a guideline or of using a guideline inappropriately will vary. Health visitors have to operate in conditions of uncertainty. In this context, they need to ask whether it is better to complete a given assessment tool or stop and listen to their client’s narrative. Richards (2015) offers a useful reminder via a case study of how interactions can be negative as well as positive. Professional interaction, however well meaning and evidence-based, is always related to issues of power. But practitioners do not need to resolve these conflicts alone. We have already noted the development of the iHV, which provides many resources to assist practitioners. In the following two sections, we will look at two different ways of
helping practitioners manage their knowledge in practice and their knowledge about practice.

**Communities of practice**

The current interest in the concept of CoPs comes largely from the work of Lave & Wenger (1991). An accessible introduction to CoPs is provided by Wenger-Trayner & Wenger-Trayner (2015), who state 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’ (Wenger-Trayner & Wenger-Trayner, 2015: 1). The primary focus, and the reason CoPs are of interest and of potential use in healthcare, is on how we learn and how learning can take place in ways that are not dependent on ‘teaching’. CoPs therefore have the potential to create a mechanism through which practitioners can learn to improve their own practice. A CoP can occur in any sphere of social activity, but it will always 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 does not automatically constitute a CoP, although it might be managed so that it does. Key to a CoP is the mutual engagement of the participants and their willingness to work together in developing their practice through a variety of activities, the end result of which will be a shared repertoire of ideas, commitments, and memories (Lave & Wenger, 1991). Activity 1.7 will help you explore activities relevant to your own practice.

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 CoPs 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 way; 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, meaningful work, and the development of 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 CoPs, which together generate a landscape of practice. These communities intersect and interact in various ways. Wenger (1998) argues that the participant at the periphery of a community can sometimes bring new ideas into it because she or he is still able to see beyond the knowledge it takes for granted. Newly qualified practitioners can take this role, bringing resources from their ‘old’ CoP – the classroom or placement – into their ‘new’ community of work.

Hutchinson & 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 CoPs. Researchers in universities largely enjoy similar contractual obligations and rights related to their employment, but they are likely to belong to different CoPs related to their research interests and methodological affiliations. Academics interested in reflective practice, for example, may be more likely to be in a CoP 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 to 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 online and in the real world, and explored their practice in an environment of mutual respect and support. A number of best-practice statements were produced, which have since been disseminated widely. Andrew et al. 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)

Despite this optimism, a review of the evidence on CoPs in healthcare published in 2011 could conclude only that they ‘may’ have a role in improving practice in healthcare (Ranmuthugala et al., 2011). One of the issues is that CoPs vary greatly in terms of their membership, organisational structure, and focus, so it is hard to generalise.
Within health visiting, the development of a uni-professional CoP was hindered by the geographical realities – even with recent increases in numbers, it is a relatively small professional group scattered throughout the country and constantly on the move. Face-to-face interaction beyond the immediate district is therefore difficult and costly in terms of time. A research project based at the University of Hertfordshire trialled the idea of a virtual community interacting online. This allows for asynchronous interaction, which is helpful for busy professionals. The project set up the Health Visitors’ Community of Practice Evidence Hub, which ‘allowed health visitors to articulate professional knowledge to support and implement evidence-based practice’ (Ikioda et al., 2013). Members could raise questions and share evidence and good practice. The project team managed the development of the CoP, offering training sessions and materials to the participants and structuring the website around pre-arranged topics. In terms of creating a successful CoP, Ikioda et al. (2013) note that:

- The role of the moderator is key.
- The degree of involvement by the participants varies considerably.
- New members are important in reinvigorating the CoP.

The CoP for health visitors has been adopted by the iHV and can be accessed via its website (iHV, 2015). Evidence from the project shows that, of its 16 topics, parenting attracted the most postings, followed by infant feeding/child nutrition and professional issues in health visiting, while building community capacity attracted the least. Ikioda et al. (2013) conclude that topic relevance is important to the success of a virtual CoP, especially because topics in health visiting may quickly become outdated as the context for practice changes.

### Reflective practice

Another way of both generating and managing knowledge in practice is through what is known as ‘reflective practice’. Just like EBP, reflective practice started as an enthusiasts’ movement but has now become institutionalised within nursing – and is used in 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 one’s practice, various methodologies have been produced to assist the practitioner. These essentially offer a series of ‘prompts’ or questions to help her 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. In Scotland, for example, it is a major part of the Flying Start Programme for newly qualified practitioners. The National Preceptorship Framework for Health Visiting (McInnes et al., 2014), which was developed by the iHV on behalf of Health Education England and the Department of Health as a transition support programme for new health visitors, identifies reflection as an important tool for learning. New health visitors (or preceptees) are required to keep a personal reflection log and to provide a written reflective account and evaluation after 12 months of practice. The document is not prescriptive about the process of reflection, although it does reference Kolb’s (1984) learning cycle model and Johns’ (2013) model of reflective practice.

However, while its proponents and supporters remain enthusiastic about the power of reflective practice, it has not been without its critics. Jennifer Greenwood (1998), of the University of Western Sydney, wrote an editorial entitled ‘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’ Greenwood (1998: 3) 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 & Keeling 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.

(Somerville & Keeling, 2004: 42)

Consequently, such models tend 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, they may not help practitioners understand how they might integrate technical–rational knowledge into practice. 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, they may ignore the social aspects of knowledge management. And fourth, and perhaps most importantly, they do not focus on the outcomes for the patient or client. Nevertheless, Ferguson argues, in the context of social work, that it is important to create ‘opportunities for stillness, to slow things down, moments for reflection on the entire
experience’ (Ferguson, 2008: 576). He also uses a phrase which may not accord with bureaucratic thinking but might resonate with seasoned practitioners: the need for ‘decoding the smell of practice’ (Ferguson, 2008: 576).

Looking back at Case Study 1.4 and the discussion on CoPs, it could be argued that we need to focus more on how groups and communities manage knowledge; even within individual reflection, we could ask the practitioner to reflect explicitly on her CoP 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 examples – and many others – the practitioner can explore her relationship with the group, deciding whether she is satisfied that it is a CoP that 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. 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 & White (2000), writing about social work and community nursing practice, agree with reflective practice insofar 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 have actually done, 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 said. Taylor & White propose that practitioners can themselves undertake the kind of analytic work about institutional practices which can be seen in Drew & Heritage (1992):

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 & White provide useful ideas about how this transcript analysis can be done; for example, they suggest a number of analytic questions concerning how authority is conveyed, how control is managed, how facts are defined and by whom, and so on. 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)

Clearly, reflective practice is a useful but contested concept. However, it has been adopted as an important element of preceptorship – the process by which the new entrant to health visiting is guided to become a competent practitioner. The Preceptorship Charter, which was developed by the iHV on behalf of the Department of Health, requires the preceptee to follow a reflective process when working with the preceptor ‘to become increasingly self-aware, able to see the salient points in any situation and use their past experience to make judgments and decisions in practice’ (iHV, 2013: 2). The National Preceptorship Framework makes substantial reference to reflective diaries or logs as well as to using reflection within ongoing supervision. As part of the NMC revalidation process, introduced in 2016, for health visitors, nurses and midwives, reflective practice is a central part of this process.

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. In the past, access to such knowledge would have been mostly 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 has largely been eroded by the explosion of online 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, potentially, to everyone. Wilson tells us that ‘A poll in August 2001 concluded that almost 100 million Americans regularly go on line for information about health care’ (Wilson, 2002: 598). She also tells us that over 100 000 sites offer health advice – and this was in 2001. Health visitors can see this as a threat or a challenge – but either way, they cannot ignore its near-ubiquitous presence.

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 the same. Many research and professional journals are also now open access: they are freely available online. Government websites provide national and local data on public health statistics (see Chapter 7). Access is also free to a number of less formal sources of knowledge, such as wikis, media reports, advertising sites, and so on. There is absolutely no possibility that access...
to these data sources can be controlled. Any search engine will provide lists of both
these knowledge sources – formal and informal – together. Wikipedia is one of the
best known knowledge access sites and – despite the ritual wringing of hands by
academics as to its unreliability – is as reliable a source of information as any.

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 will be more today), but only four
which adhered closely to published guidelines for the home management of child-
hood 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 it is one thing to write a code and another to
enforce it. 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 and the media

Social networking and the media now represent a major source of information for
a number of client groups – especially mothers. Online communication has allowed
clients to move away from the role of a passive recipient of information and into that
of an active participant in a dialogue. There are a huge number of social network-
ing resources, which may be used synchronously or asynchronously. An internet
forum (or 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 have depended on the local mother and toddler
group – and she may well still – today she also has access through such websites
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 CoPs: 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 Mumsnet and Netmums provide enormous resources of advice and experience, which may not be verified in any formal fashion but are undoubtedly very influential.

If access to online sources of information is a major part of how knowledge is transmitted and acquired in the 21st 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 online.

Kata (2010) has called the Internet ‘A Postmodern Pandora’s Box’. She looked at Internet sites in the USA and Canada that were opposed to vaccination and found that they offered only one version of ‘truth’: that vaccination is unsafe, ineffective, unnatural, and a threat to civil liberties (in some parts of the USA, vaccination is required for entry into 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 were caused by other agents – polio, for example, was thought to be caused by eating too much sugary food: notably ice cream, hence its prevalence 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 online 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 argues strongly that this cannot be effective:

> 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 asserts 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-world 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 had serious concerns about who to trust in this situation. A number of sources of information were cited, but their credibility varied. The government had little, 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 sheer amount of media coverage and the fact that it tried to show both sides of the story – and thereby raised the profile of Wakefield et al.’s (1998) work – fuelled concerns about the vaccine’s safety. Views about the trustworthiness of healthcare 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 secured a financial advantage by meeting targets. A common theme in the parents’ responses was 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 health policy.

(Hilton et al., 2007: 8)

Biss (2015), in her illuminating monograph, On Immunity, reminds us that debates about vaccination are about power and trust as well as science, and that vaccination has been promoted as a way of preventing the spread of contagion from the poor to the wealthy. While 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, parents can now access a rich source of other parents’ stories and concerns online.

Hilton et al. (2007) also raise the issue of the expectations parents may have of health services, which can be different from those of the health visitor. The BBC News health website quotes a mother as saying she wants a guarantee that there is no danger; specifically, she wants ‘Some documentation, or reliable medical information from GP surgeries or the government to prove that there is no link whatsoever’ (BBC News, 2008). While clients may want certainty, very little research can provide it, particularly 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. The fact that in a study population of, say, 2000 there is 1 case of negative effects cannot be extrapolated to define the risk to any single individual as 1 in 2000. The specific risk to the
individual is largely unknowable, so in all one-to-one discussions with a client the practitioner must rely on her own experience and skills, as well as on evidence ‘imported’ from outside. She should also take into account 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.

EBP 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, even though 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 validity and relevance of research studies and decide to change their practice on the basis of the same remains a prevalent model. Hopefully, it is clear from the preceding argument 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 undertaking, 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 often stimulating and interesting, cannot provide the evidence needed to underpin practice change.

However, practitioners are the focus of a massive array of protocols. Protocols are a way of communicating between all the different layers of practice, management, and regulation (Hutchinson & Shakespeare, 2010). Those protocols which come, or purport to come, from rigorous scientific research assert that they have a particular scientific warrant that gives them a privileged status. But, as has been shown, they may in fact 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 about your practice through use of reflective practice. As with EBP, a whole industry of journals, books, and ‘experts’ has flourished around reflective practice, and the movement – evangelical, again – has become embedded in curricula and re-accreditation processes.
Within nursing curricula, the two great knowledge ideologies of EBP and reflective practice 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.

The two most neglected aspects of evidence in practice are evidence about actual 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). 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 and where and how we might have expected this body of evidence to grow and it has not. 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! Where recording does take place, the rich data which it produces provide a real challenge to researchers, both in the time they take to analyse and in fitting them in to published accounts. But the vision of Taylor & White (2000) of a workforce continually recording and analysing its practice is a compelling one. Traynor et al. (2010) suggest 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 & White use for primary data. Certainly, the health visiting knowledge base lacks rigorous narratives about practice for analysis and debate.

**Summary**

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 case 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 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.

(May, 2006: 513)
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 has been 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, client experiences, and so forth, 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 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.

References

Managing Knowledge in Health Visiting


El-Ghorr, A., James, R. & Twaddle, S. (2011) SIGN is customising implementation support to every guideline. Available from: http://www.guidelinesinpractice.co.uk/may_11_ghorr_sign_may11#.VaJThZPF8s0 (last accessed 30 March 2016).


**Activities**

**Activity 1.1**

**Finding the supportive evidence**

Identify two common health visitor interventions and provide the evidence that 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 1.2**

**Practising EBM**

Identify the best treatment for sore nipples by completing Table 1.1 using EBM.

**Table 1.1  Practising EBM**

<table>
<thead>
<tr>
<th>Step</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify the need for information and formulate a question</td>
<td>What is the best treatment for sore nipples?</td>
</tr>
<tr>
<td>Track down the best possible source of evidence to answer the question</td>
<td></td>
</tr>
<tr>
<td>Evaluate the evidence for validity and clinical applicability</td>
<td></td>
</tr>
<tr>
<td>Compare the evidence you have with the practice you have seen</td>
<td></td>
</tr>
<tr>
<td>Does the evidence support the practice? If not, how would you argue for a change?</td>
<td></td>
</tr>
<tr>
<td>How would you evaluate the outcome?</td>
<td></td>
</tr>
</tbody>
</table>
Activity 1.3
Assessing the effectiveness of your practice
Identify a question concerning the effectiveness of health visiting practice. Search organisational websites (e.g. NICE, www.nice.org.uk; SIGN, www.sign.ac.uk; the Cochrane Collaboration, www.cochrane.org) to collect your evidence. How easy are they to use? Do they help you answer your question?

Activity 1.4
Identify and evaluate the evidence base
Think of an alternative therapy (e.g. reflexology) and explore the evidence base. If a client asked about the effectiveness of this treatment, what would you tell them?

Activity 1.5
Implementing research evidence
Using the categorisation suggested by Gerrish (2003) (i.e. factors relating to the organisation, the way research is communicated, the quality of the research, and the practitioner), explore the barriers in your own practice context.

Activity 1.6
Use of guidelines
Identify a guideline currently in use in your practice. Discuss the sources of evidence that underpin it. You might like to use the the Appraisal of Guidelines for Research & Evaluation (AGREE) Instrument (available from www.agreetrust.org) to appraise 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? Have the criteria for selecting the evidence been clearly described?
Activity 1.7

Communities of practice

CoPs develop their practice through a variety of activities. Wenger-Trayner & Wenger-Trayner (2015: 3) provide a table listing a few typical activities, accompanied by examples. Access this table and identify those activities that would be relevant to your own practice. For each activity you identify, give an example from your own practice. Are there any activities that are relevant to your own practice that are not included in the table?