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336

Evidence-based management in the NHS: is it possible?

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Abstract *The rise of evidence-based medicine and more recently evidence-based policy reflect the increasing importance of evidence as a basis for the organisation and delivery of health care. Evidence-based practice is central to the “modernisation” of health care in current UK policy. The latest manifestation of this process is the emergence of evidence-based management in health care. This paper examines the development of evidence-based approaches in health care and questions the appropriateness of such an approach to management. The problems inherent in applying the principles of EBP to management are explored and alternative approach based on the notion of craft is suggested as more practical and realistic.*

Introduction

Evidence-based practice (EBP) has been characterised as an “idea whose time has come” (Harrison, 1998, p. 15). It is an approach which is founded on the principle that the provision of care and treatment should be based on “scientific” evidence for its efficacy and effectiveness. Until recently the focus of attention in relation to EBP has been on clinical care. However of late the need for policy and management to be evidence-based has also been identified. The purpose of this paper is to trace the development of EBP and evidence-based policy and demonstrate how this has served to direct attention to the need for evidence-based management. Once the context for the emergence of evidence-based management has been established the feasibility of it as an approach is examined in order to answer the question: Is it possible?

Evidence-based practice

Evidence-based practice (EBP) has been defined as “doing the right things right” (Muir Gray, 1997). This summarises the key elements of EBP, which has developed from the approach adopted in medicine to generate and use better evidence in the pursuit of effective patient care. It is in essence an explicit statement of intent and provides practical methods for overcoming the gap between research and practice (Reynolds, 2000). Evidence-based medicine has taken off as a major movement in the UK, principally in the context of clinical governance and the cost-effectiveness of health care (Hunter, 2003). It is the conscientious and judicious use of best evidence in making decisions about the care of individual patients (Sackett *et al.*, 1996). An extensive literature has developed around the purpose and introduction of EBP and it is not the purpose of this paper to rehearse these areas (see for example Sackett and Rosenberg, 1995; Muir Gray, 1997; Davies and Nutley, 1999; Nutley and Davies, 2000; Craig and Smyth, 2002; Stevens *et al.*, 2001). In summary, it is an approach which draws on “science” and all its modernist trappings of truth and progress and is presented as rational and politically neutral (Harrison, 1998, p. 21). Consequently the world of evidence-based medicine is characterised as an abstracted form of pure



rationality where there is a clear hierarchy of evidence with the randomised controlled trial at its apex (Wood *et al.*, 1998). For its “champions” there is an unshakeable belief in the capacity of science, and the rational and systematic application of science, to bring about effective, efficient and accountable practice (Trinder, 2000a).

However this could be regarded as a limited account of EBP and if the context for the subsequent development of evidence-based management is to be fully appreciated there is a need to acknowledge that EBP is far from being an uncontested concept. Indeed Traynor (2002) refers to it as being comprised of “movements” and examines some of controversies and conflicts that characterise this area. These include disagreements as to the nature and relative weight of different types of evidence (Forbes and Griffiths, 2002; Traynor, 2002); the difficulties associated with changing practice in the light of evidence (Davies *et al.*, 1999; Kitson *et al.*, 1998; Wood *et al.*, 1998); and concerns about the impact of EBP on professional groups (Wiles and Barnard, 2001; McInnes *et al.*, 2001). Also although the emphasis in much of the work addressing EBP is on generating and using research as the primary form of evidence, there is also a growing recognition of the importance of “best practice” and “expert consensus”, as other forms of evidence (Kovner *et al.*, 2000; French, 2002; Thompson, 2003). As Kitson (2002) argues, definitions of evidence need to be understood in the context of establishing effective therapeutic relationships with clients and by balancing evidence from patients, clinical experience and research in order to make “best” decisions about clinical care (Kitson, 2002, p. 185). This combination of factors has served to increase the impetus of EBP and its scope has widened to encompass other areas of activity in health care.

One example of this is the effect it is beginning to have at the policy level (Black, 2001, Niessen *et al.*, 2000). As Ham *et al.* (1995, p. 72) have suggested: evidence-based policy needs to go hand in hand with evidence-based medicine in shaping an NHS fit for the future.

Evidence-based policy

An extract from *Modernising Government* (Cabinet Office, 1999) makes it clear that the development of evidence-based policy is an expectation of the current administration: This government expects more of policy makers. More new ideas, more willingness to question inherited ways of doing things, better use of evidence and research in policy making and better focus on policies that will deliver long-term goals (Cabinet Office, 1999, p. 1). A key driver of modernisation is evidence-based policy making and service delivery (Sanderson, 2002).

The need to be seen to be making evidence-based policy decisions has permeated all areas of British public policy (Black, 2001). Evidence-based approaches in health can be described as health policy and health care delivery driven by systematically collected proof on the effects of health-related interventions from the health and social sciences (Niessen *et al.*, 2000). This definition assumes a linear relationship between the availability of appropriate evidence and change in the practice and organisation of health care. However this “ideal model” of evidence-based policy making (Sanderson, 2002) is predicated on assumptions rather than reality. As Smith *et al.* (2001) argue, although it is fashionable to espouse the virtues of evidence-based policy making, in which robust evidence about the efficiency and effectiveness of policy proposals plays a significant role in policy development and implementation, the government’s NHS

reorganisation is an “evidence free zone”. Black (2001) also concludes that research currently has little direct influence on health services policy or government policy. There are a number of reasons for this. Nutley *et al.* (2003, p. 3) summarise the four key requirements that are necessary for improving evidence use in policy and practice (with emphasis as per original). These are:

- (1) Agreement as to what counts as evidence in what circumstances.
- (2) A strategic approach to the *creation* of evidence in priority areas, with concomitant systematic efforts to accumulate evidence in the form of robust bodies of knowledge.
- (3) Effective *dissemination* of evidence to where it is most needed and the development of effective means of providing wide access to knowledge.
- (4) Initiatives to ensure the integration of evidence into policy and encourage the utilisation of evidence in practice.

Each of these requirements can be problematic, for example the hierarchy of evidence in health care indicates that more value is accorded to some types of evidence than others. Where would the experience of the consumer or the user figure in this? The proliferation of different forms of evidence has served to complicate the process of policy making (Gauld, 2001). Research often raises more questions regarding policy issues than answers and this presents problems in deciding which evidence to accept. Research findings are seldom black and white (Donald, 2001) and there are long standing disputes as to what is regarded as “best evidence” (Forbes and Griffiths, 2002; Traynor, 2002). One thing that is clear, in the context of EBP, is that the relative weight accorded to different inputs into the policy process varies between policy areas. Ideology, expediency and public preferences compete with scientific evidence for the ears of ministers (Davies *et al.*, 1999).

A strategic approach to knowledge creation involves decisions about which areas of knowledge and research are important. For example, although nurses constitute the largest part of the workforce of the NHS the funding allocation to this group for research has been relatively low (Department of Health, 2000), consequently a “robust body of knowledge” is still to be developed to capitalise fully on the potential contribution of this group to knowledge creation in health care.

The processes of dissemination and innovation will be considered in more detail in the section on evidence-based management, however in policy terms simply providing the information about best policy will not result in its implementation (Nutley *et al.*, 2003). Similarly there is not a simple model for innovation (*Effective Health Care Bulletin*, 1999) and different approaches are needed in different settings.

There is also a more fundamental issue to be considered here. Hunter (2003) contends that policy is not a rational, objective, neutral activity devoid of values or the play of power. Individuals and groups within health care organisations have multiple and conflicting objectives and interest and their desire to defend these is an important determinant of policy outcomes. Leicester (1999) recognises that evidence-based policy making is the exception rather than the rule and lists seven “enemies” of EBP which prevent its development and implementation which include strong traditions in the public sector which prevent change; the lack of consensus regarding evidence; the political nature of health care; and the challenges of time and funding.

In the case of the modernisation agenda of the NHS, the need for consensus identified by Leicester (1999) and public preference and expediency (Davies *et al.*, 1999) seem to have come together to produce an impetus for the combination of two strands of ideology from the past. The combination of collectivist provision and market approaches, drawn together in the “ideological novelty” (Bradshaw, 2003) of the “third way”, illustrate the consequence of this aspect of the policy process. This is not altogether surprising in the context of health policy, as West and Scott (2000, p. 819) observe:

Solutions to problems are not generally designed anew. Ideas and policies swim around, mutate, metamorphose, reproduce and die in the cultural equivalent of a “primeval soup”. Policy makers can often find in this pool of ideas a solution that is more or less applicable to any situation.

It is possible to view this emphasis on evidence-based policy as an outcome of a continuing process of rationalisation. Reed (1992) contends that rationality can become a symbol or icon to be mobilized as a critical resource in the continuing struggle to legitimate certain sectional interests and values as the only proper basis for organised action and to deny that crucial aura of legitimacy to opposing ideologies (Reed, 1992, p. 43). Similarly, Clarke and Newman (1997, p. 66) concluded:

The rationalism of managerialism provides a non-partisan (and de-politicised) framework within which choices can be made. Competing values are reduced to alternative sets of options and costs and are assessed against their contribution to the organisation's performance.

The reform of the NHS, and the public sector more generally, has been characterised as the application of “rational” management principles as a solution to the ills of publicly administered organisations. Rational management, has almost become a “shorthand” term to refer to a strand of policy based on the assumption that the processes of calculation, measurement and strict control of the activity of workers can and should be used to manage the public sector more effectively (Hunter, 1990; Pollitt, 1993).

While this is not a complete explanation of this trend in policy making (Fox, 1992) it appears to be a driving force behind the current modernisation agenda in health which is now having an impact on health care management.

Evidence-based management

Spurgeon (1999, p. 29) has observed that one of the repercussions of evidence-based medicine may be a challenge to management in terms both of the evidence available and of the nature and processes of research used to collect the evidence. On one level this should be a straightforward process because as Reedy and Learmonth (2000, p. 155) suggest:

... the dominant view of what management is ... sees it as a rational, scientific and professional activity. From this view of management, it follows that it should be possible to identify a common core of generic knowledge, techniques and competencies, which are always applicable no matter what type of organisation is being managed.

However, the reality is more complex than this and in the NHS no real “axiomatic” management principle has been officially endorsed at either an implicit or explicit level (Harrison *et al.*, 1992, p. 78). Reedy and Learmonth (2000) also go on to conclude that no

consensus regarding the nature and content of management exists. Not only that there is little sense of a developing body of knowledge in health care management, which stems from early research that is recognised as the foundation of later work, and from which major new developments can be traced (Stewart, 1999, p. ix). Yet this has not exempted health care management from the “repercussions” that Spurgeon (1999) identified.

The impact of managerialism

In a sense this could be regarded as the process of “managerialism” coming full circle. The impact of managerialism on health care and the public sector more generally is a relatively recent phenomenon (Pollitt, 1993). It can be defined as a set of beliefs, at the core of which burns the seldom-tested assumption that better management will prove an effective solvent for a wide range of economic and social ills (Pollitt, 1993, p. 1). The policies that were introduced arising from this belief led to the application of management techniques and major structural changes in health care, in particular the “internal market” in the NHS (Cutler and Waine, 2000). The cluster of developments that occurred under the broad rubric of managerialism included an emphasis on value-for-money and audit (Trinder, 2000b). This ultimately led to demands for evidence to support clinical interventions and practices in order to inform “purchasing” decisions.

The rise of evidence-based management

The key factor in the drive for evidence-based management is summarised by Walshe and Rundall (2001, p. 451):

There is certainly considerable scope for making better use of research evidence when deciding how to organize, structure, deliver or finance health services. Managers and policy makers are on shaky ground if they argue that the principles of evidence-based health care – which they have advocated so enthusiastically for clinical practice – do not apply to them.

Evidence-based management means that managers should be encouraged to examine critically the scientific basis for their practice. They should learn to search and critically appraise empirical evidence from management research as a basis for their decisions (Axelsson, 1998, p. 313). In a review of the literature which included the term evidence-based management as applied to health care, Young (2002) found there were two main categories of interpretation of the term. It was used to indicate the management of clinical practice based on agreed evidence; and to advocate the application of the principles of EBP to the practice of management itself. However as Walshe and Rundall (2001) note, evidence-based management seems to have made little or no progress in health care when compared with its clinical cousin and they go on to conclude, we are still a long way from seeing managers make proper use of evidence in their decision making (p. 437). The nature of management as an activity means that adoption of the principles of EBP in the same way that they have been applied to clinical care is unlikely. As noted above, the process of evidence-based practice is itself problematic and it is questionable whether strict application of the principles of EBP to management is possible or indeed desirable. In short an application of the evidence-based approach from medicine to management cannot be done without some modifications (Axelsson, 1998).

Stewart (2002) argues that the scientific standards required for evidence-based medicine are rarely feasible in management or even necessary. She goes on to contend that what is needed is information that is useful in reaching management decisions and which is as reliable as possible within the constraints of the situation. Thus, in management, a broad view must be taken of what is meant by current best evidence (Stewart, 2002). Evidence-based management is primarily a questioning attitude of mind. The same approach is also part of good management, but one that is too often neglected. The practice of evidence-based management can provide the impetus to overcome this neglect (Stewart, 2002, p. 23). Yet she goes on to concede: evidence is often not as firm as its protagonists claim, and that what is accepted as evidence is affected by the views of the people concerned (Stewart, 2002, p. 23). Consequently although there may be a climate where the expectations of EBP are being raised in the context of management practice, the extent to which real change is occurring is open to question. Furthermore, there has been a tendency in this managerial and technocratic age to reduce problems to technical ones, and in effect, to depoliticise them. So defects in the evidence base can become an excuse or pretext for inaction while further research is conducted to find the answers, assuming there are answers to be found (Hunter, 2003).

There are other links between EBP and management. These can be discerned through reference to the history of management thought. Indeed it has been noted that a number of techniques that characterise EBP were originally developed in university business schools. For example decision analysis, cost benefit analysis, decision modelling and statistical process control (Neuhauser, 2000). Axelsson (1998) also points to “scientific management” (Taylor, 1911) as an early application of research evidence to the practice of management. However in seeking such common ground, cautionary tales are also likely to emerge. Weber regarded the scientific management developed by Taylor as the height of formal rationality (Ritzer, 2001). While this development did some “good” things, such as indicating how organisationally efficient and effective a finite body of rules and techniques that could be learnt and mastered could be, it was ultimately a disaster. It was too formally rational and generated a range of dysfunctional effects that outweighed its positive elements. It could not “make meaning” for people (DuGay, 2000, p. 73). Thus, a “purely business” relationship of this nature, characterised by a high degree of predictability, turns out to be ethically irrational because it rejects an interpretation and understanding on the basis of individual will and personal relationships (Weiss, 1987, p. 156). Thus applying research evidence needs to be undertaken with caution and incorporate a more detailed understanding of the work setting arising from experience.

Searching for answers in more recent work has also been advocated. Axelsson (1998) suggests managers should look for inspiration and support for their decisions in the empirical literature from management research rather than the popular management literature (Axelsson, 1998, p. 301). Yet this can be problematic. Briner (2000) for example found it was not possible to find examples of the explicit adoption of evidence-based practice frameworks within human resource management in health care (Briner, 2000, p. 203). Even when “robust” evidence does exist for particular interventions (clinical) their implementation is not guaranteed. Different interest groups in the setting interpret the evidence in different ways and attach contrasting value to it. Also the implementation and innovation processes are social phenomena

that do not conform to the “rational” model. The role of social networks, opinion leaders and the organisational context have all been found to be more influential than the evidence itself (Dopson *et al.*, 2001, 2002; Nutley *et al.*, 2003; Ferlie *et al.*, 2000; Wood *et al.*, 1998). If this occurs with clinical evidence the difficulties with the more diffuse evidence-base of management are likely to be greater. As Axelsson (1998, p. 313) observes:

... the empirical evidence on which management can be based will have a different character compared with the evidence of medical research. Randomized controlled trials are not possible in the same way in management research. The empirical data also have a more qualitative character, involving elusive phenomena like values, interests and power.

This would appear to be a key point. There is a paradox in evidence-based management in that it reflects an aspiration to function along the same lines as evidence-based practice, and yet it is a qualitatively different activity that needs to adapt the principles for them to be of any practical value (Stewart, 2002; Axelsson, 1998). There is also a lack of consensus concerning how evidence-based management should be advanced (Kovner *et al.*, 2000; Short, 2000; Hickey, 2000). The way evidence-based management develops is likely to have a significant effect on the organisation and management of health care.

Discussion

Aside from the problematic nature of “evidence” in management, referred to earlier, Learmonth (2003) usefully summarises some of the other difficulties when it comes to utilising evidence as a basis for managerial practice. Much of the work which examines management is based on a priori assumptions about what managers do, often derived from standard management texts (Learmonth, 2003, p. 105). This has also been highlighted by Hales (1986) who found there was no agreed definition of management work on which to base a cumulative programme of research arising from systematic study. Similarly there is an extensive literature which demonstrates that that people in organisations, and managers in particular, do not conform to “textbook” or rational accounts of management and managing (Mintzberg, 1973; Stewart, 1983; Willmott, 1984; Whitley, 1989). More recently Collins (2002) has suggested that many analyses of management are intended to give shape to the processes of management while diminishing the ambiguities inherent in management decision making. As Learmonth (2003, p. 104) observes: management and medicine are both unchallenged as rational, broadly beneficial activities carried out by elites within an (unproblematically) capitalist society. Consequently, starting a debate about how to implement evidence-based management may be to miss the point. Organisational life is fragmented and made up of a complex mesh of interpersonal relationships and is not amenable to the direct application of the precepts of EBP. There are more fundamental issues concerning the nature of management itself and its purpose in health care that need to be addressed before the agenda shifts to introducing new ways of working, which may arise from limited and flawed conceptions.

Craft

The concept of craft is a familiar one in managerial practice and can serve as a means of resolving the tensions inherent in balancing the demands for evidence-based

management and dealing with the reality of health care. The way the term has been used in the discipline will be examined briefly as a basis for arguing that wholesale adoption of evidence-based management is not an inevitable or indeed realistic outcome.

The craft of management

The term “craft” evokes notions of traditional skill, dedication, and perfection through the mastery of detail (Mintzberg, 1987). Wright Mills (1953) argued that craftsmanship (sic) as a fully idealized model of work gratification involves six major features:

- (1) there is no ulterior motive in work other than the product being made and the processes of its creation;
- (2) the details of daily work are meaningful because they are not detached in the workers mind from the product of the work;
- (3) the worker is free to control his (sic) own working action;
- (4) the craftsman is thus able to learn from his work and to use and develop his capabilities and skills in its prosecution;
- (5) there is no split of work and leisure or work and culture; and
- (6) the craftsman’s livelihood determines and influences his entire mode of living.

However he concluded that its realisation is impossible for the modern white collar worker. This set of features is an “ideal type”, ideal in the sense that it represents a set of characteristics itemising elements of a fully-formed notion of craft (Watson, 1995). This can then be used to study the phenomenon or situation and serve as a basis for developing different ways of using it. Wright Mills (1959) carried this work forward into his own approach to scholarship and research. In later work he advocates what he terms “intellectual craftsmanship” as a means of conducting sociological inquiry. He states:

You must learn to use your life experience in your intellectual work continually to examine and interpret it. In this sense craftsmanship is the centre of yourself and you are personally involved in every intellectual product upon which you work (Wright-Mills, 1959, p. 211).

This interpretation of craft is also applicable to management practice because, as Short (2000) observes management remains much more an art form than a science and much empirical research does not solve management’s problems. Consequently recourse to the concept of craft holds out the prospect of bringing a “critical” orientation to health care management that is more suitable to the needs of its practitioners than a blanket adoption of EBP.

For example Mintzberg (1987) discusses the craft involved in moulding clay as a metaphor to explain how management strategy making should be approached. Central to this is the combination of thought and action, as he observes: No craftsman thinks some days and works others (Mintzberg, 1997, p. 68). The utility of the concept of “craft” as a means of conveying the complexity of management is also evident in more recent work. Watson (1994) suggests that in carrying out their craft managers are rhetoricians or wordsmiths, using words to make sense of what they are doing and to persuade others. He goes on to conclude:

Management and management research can both be usefully labelled as crafts. Shaping and crafting are very similar notions. Managers craft and shape things to get the level and quality of work tasks done which will enable their organization to continue its business (Watson, 1994, p. 85).

This does not provide answers concerning the overarching purpose of management, however it does offer the prospect of arriving at more cogent explanations of this through examination of the reality of management in action.

This represents a particular strand in management thought summarised by Schön (1991) and it is this view which could conceivably be used to help managers incorporate the principles of EBP into their work, without advocating its wholesale adoption. He argues that the manager is a craftsman (sic), a practitioner of an art of managing that cannot be reduced to explicit rules and theories (Schön, 1991, p. 236). Rather than applying a series of techniques and seeking evidence for all aspects of their practice, managers need to blend their tacit knowledge, their experience of the organisation and the evidence that is available as appropriate as a basis for management action and decisions. The notion of management as an “intellectual craft” (Wright Mills, 1959; Watson, 1994) appears to be consistent with the “questioning attitude of mind” which is seen by Stewart (2002) and Axelsson (1998) as essential for the advancement of evidence-based management. The rediscovery or surfacing of this tradition in the context of EBP indicates an alternative line of approach that may be worth pursuing.

The ultimate aim of all work of this nature in health care ought to be to develop a “critical practical perspective” (Collins, 2002) on health care management. That is, subjecting the vocabulary and discourse of management to analysis in order to provide a critical account of management ideas so that managers and others can come to understand more about the complexity and ambiguity which surrounds social action at work (Collins, 2002).

Conclusion

The Chief Nursing Officer for England has argued that there is no single management approach that can be applied and that the most effective managers are able to apply a range of approaches in dealing with different situations (Mullally, 2003). Yet there is little evidence to indicate which approaches work best in which situations. However managers are likely to be required to provide “evidence” as the modernisation agenda is taken forward.

The concept of evidence-based practice is constantly being developed. For example Thompson and Learmonth (2002, p. 235) argue that an evidence-based culture is one which is totally committed to balanced decisions that give due weight to research evidence, patient preference, available resources and clinical expertise. This extends the definition slightly to incorporate other forms of evidence into the “hierarchy”. The effective combination of these different elements in order to adapt the principles of EBP to management, will require focused “critical thinking”. Drawing together the work of Schön and Mintzberg demonstrates that a foundation for this approach exists. The reflection in action of managers is distinctive in that they operate in an organisational context and deal with organisational phenomena. They draw on cumulatively developed organisational knowledge which they transform in the context of some unique situation (Schön, 1991, p. 265). Managerial culture is pragmatic and value is

placed on the application of ideas, rather than the generation of evidence, and so either substantial changes in managerial practice are required or adaptation of the ideas of EBP so that they are more congruent with the existing values and beliefs of managers (Walshe and Rundall, 2001). Is evidence-based management possible? Not in its pure form, however the principles can inform a more critical and evidence-aware approach if incorporated in a broad notion of craft.

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