Chapter 1
Evidence-based practice
Doing the right thing for patients

Tracey Bucknall and Jo Rycroft-Malone

Introduction

Profound changes in health care have occurred as a result of advances in technology and scientific knowledge. Although these developments have improved our ability to achieve better patient outcomes, the health system has struggled to incorporate new knowledge into practice. This partly occurs because of the huge volume of new knowledge available that the average clinician is unable to keep abreast of the research evidence being published on a daily basis. A commonly held belief is that knowledge of the correct treatment options by clinicians will lead more informed decision making and therefore the correct treatment for an individual. Yet the literature is full of examples of patients receiving treatments and interventions that are known to be less effective or even harmful to patients. Although clinicians genuinely wish to do the right thing for patients, Reilly (2004) suggests that good science is just one of several components to influence health professionals. Faced with political, economic, and sociocultural considerations, in addition to scientific knowledge and patients’ preferences, decision making becomes a question of what care is appropriate for which person under what circumstances. Not surprisingly, to supplement to clinical expertise, critical appraisal has become an important prerequisite for all clinicians (nurses, physicians, and allied health) to evaluate and integrate the evidence into practice.

Although there is the potential to offer the best health care to date, many problems exist that prevent the health care system from delivering
up to its potential. Globally, we have seen continuous escalation of health care costs, changes in professional and nonprofessional roles and accountability related to widespread workforce shortages, and limitations placed on the accessibility and availability of resources. A further development has been the increased access to information via multimedia, which has promoted greater involvement of consumers in their treatment and management. This combination has lead to a focus on improving the quality of health care universally and the evolution of evidence-based practice (EBP).

What is evidence-based practice?

Early descriptions simply defined EBP as the integration of best research evidence with clinical expertise and patient values to facilitate clinical decision making (Sackett et al., 2000: 1). The nursing society, Sigma Theta Tau International 2005–2007 Research & Scholarship Advisory Committee (2008) further delineated evidence-based nursing as “an integration of the best evidence available, nursing expertise, and the values and preferences of the individuals, families, and communities who are served” (p.69). However, an early focus on using the best evidence to solve patient health problems oversimplified the complexity of clinical judgment and failed to acknowledge the contextual influences such as the patient’s status or the organizational resources available that change constantly and are different in every situation.

Haynes et al. (2002) expanded the definition and developed a prescriptive model for evidence-based clinical decisions. Their model focused on the individual and health care provider and incorporated the following: the patient’s clinical state, the setting and circumstances; patient preferences and actions; research evidence; and clinical expertise. Di Censo et al. (2005) expanded the model further to contain four central components: the patient’s clinical state, the setting and circumstances; patient preferences and actions; research evidence; and a new component health care resources, with all components overlaid by clinical expertise (Fig. 1.1). This conceptualization has since been incorporated into a new international position statement about EBP (STTI, 2008). This statement broadens out the concept of evidence further to include other sources of robust information such as audit data. It also includes key concepts of knowledge creation and distillation, diffusion and dissemination, and adoption, implementation, and institutionalization.
These changes to definitions and adaptations to models highlight the evolutionary process of EBP, from a description of clinical decision making to a guide that informs decisions. While there is an emphasis on a combination of multiple sources of information to inform clinicians’ decision making in practice, it remains unknown how components are weighted and trade-offs made for specific decisions.

The evolution of evidence-based practice

A British epidemiologist, Archie Cochrane, was an early activist for EBP. In his seminal work, Cochrane (1972) challenged the use of limited public funding for health care that was not based on empirical research evidence. He called for systematic reviews of research so that clinical decisions were based on the strongest available evidence. Cochrane recommended that evidence be based on randomized controlled trials (RCTs) because they were more reliable than other forms of evidence. Research reviews should be systematically and rigorously prepared and updated regularly to include new evidence. These principles resonated with both the public and health care providers.
In 1987, Cochrane noted that clinical trials on the effectiveness of corticosteroid treatments in premature labor in high-risk pregnancies were supportive of treatment but had never been comprehensively analyzed. He referred to a systematic review that indicated corticosteroid therapy could reduce low-birth-weight premature infant mortality rates by 20% (Cochrane Collaboration, 2009). In recognition of his work and leadership, the first Cochrane Centre was opened 4 years after his death; the Cochrane Collaboration was founded a year later in 1993. The aim of the collaboration is to ensure that current research evidence in health care is systematically reviewed and disseminated internationally. Beginning in medicine, the collaboration now has many health professions represented on review groups including consumers.

As Kitson (2004) noted, the rise of evidence-based medicine (EBM) was in itself, a study of innovation diffusion, “offering a strong ideology, influential leaders, policy support and investment with requisite infrastructures and product” (p. 6). Early work by Sackett and team at McMaster University in Canada and Chalmers and team at Oxford in the UK propelled EBM forward, gaining international momentum. Since 1995, the Cochrane Library has published over 5000 systematic reviews, and has over 11,500 people working across 90 different countries (Cochrane Collaboration, 2009).

The application of EBM core principles spread beyond medicine and resulted in a broader concept of EBP. In nursing, research utilization (RU) was the term most commonly used from the early 1970s until the 1990s when EBP came into vogue. Estabrooks (1998) defined RU as “the use of research findings in any and all aspects of one’s work as a registered nurse” (p. 19). More recently, Di Censo et al. (2005) have argued that EBP is a more comprehensive term than RU. It includes identification of the specific problem, critical thinking to locate the sources, and determine the validity of evidence, weighting up different forms of evidence including the patients preferences, identification of the options for management, planning a strategy to implement the evidence, and evaluating the effectiveness of the plan afterwards (Di Censo et al., 2005).

The emergence of EBP has been amazingly effective in a short time because of the simple message that clinicians find hard to disagree with, that is, where possible, practice should be based on up to date, valid, and reliable research evidence (Trinder and Reynolds, 2000). In Box 1.1, four consistent reasons for the strong emergence of
Evidence-based practice

Box 1.1 The emergence of evidence-based practice (Trinder and Reynolds, 2000)

<table>
<thead>
<tr>
<th>Research–practice gap</th>
<th>Slow and limited use of research evidence. Dependence on training knowledge, clinical experience, expert opinion, bias and practice fads.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor quality of much research</td>
<td>Methodologically weak, not based on RCTs, or is inapplicable in clinical settings.</td>
</tr>
<tr>
<td>Information overload</td>
<td>Too much research, unable to distinguish between valid and reliable research and invalid and unreliable research.</td>
</tr>
<tr>
<td>Practice not evidence-based</td>
<td>Clinicians continue to use harmful and ineffective interventions. Slow or limited uptake of proven effective interventions being available.</td>
</tr>
</tbody>
</table>

EBP across the health disciplines are summarized by Trinder and Reynolds (2000).

It is worth noting, however, that while generally accepted as an idea “whose time has come,” EBP is not without its critics. It is often challenged on the basis that it erodes professional status (as a way of “controlling” the professions), and as a reaction to the traditional hierarchy of evidence (see Rycroft-Malone, 2006 for a detailed discussion of these arguments).

Although significant investment has been provided to produce and synthesize the evidence, a considerably smaller investment has been made toward the implementation side of the process. As a consequence, we have variable levels of uptake across the health disciplines and minimal understanding of the effectiveness of interventions and strategies used to promote utilization of evidence.

What does implementation of evidence into practice mean?

In health care, there have been many terms used to imply the introduction of an innovation or change into practice such as quality improvement, practice development, adoption of innovation,
6 Models and frameworks for implementing evidence-based practice

Box 1.2 What is meant by implementation?

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
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<tbody>
<tr>
<td>Diffusion</td>
<td>Information is distributed unaided, occurs naturally (passively) through clinicians adoption of policies, procedures, and practices.</td>
</tr>
<tr>
<td>Dissemination</td>
<td>Information is communicated (actively) to clinicians to improve their knowledge or skills; a target audience is selected for the dissemination.</td>
</tr>
<tr>
<td>Implementation</td>
<td>Actively and systematically integrating information into place; identifying barriers to change, targeting effective communication strategies to address barriers, using administrative and educational techniques to increase effectiveness.</td>
</tr>
<tr>
<td>Adoption</td>
<td>Clinicians commit to and actually change their practice.</td>
</tr>
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</table>

Source: Definitions adapted from Davis and Taylor-Vaisey (1997).

Figure 1.2 Nature of spread

dissemination, diffusion, or change management. The diversity in terminology has often evolved from the varying perspectives of those engaged in the activity such as clinicians, managers, policy makers, or researchers. Box 1.2 differentiates some of the definitions most frequently provided.

These definitions imply a continuum of implementation from the most passive form of natural diffusion after release of information toward more active dissemination where a target audience is selected and communicated the information to improve their skills and knowledge. Further along the continuum is the systematically planned, programmed, and implemented strategy or intervention where barriers are identified and addressed and enablers are used to promote implementation for maximum engagement and sustainability (Fig. 1.2).

Implementation in health care has also been informed by many different research traditions. In a systematic review of the literature on
Evidence-based practice 7
diffusion, dissemination, and sustainability of innovations in health
services, Greenhalgh et al. (2004) found 11 different research tradit-
ions that were relevant to understanding implementation in health
care. These were: Diffusion of innovations; rural sociology; medical
sociology; communication; marketing and economics; development
studies; health promotion; EBM; organizational studies; narrative
organizational studies; complexity and general systems theory. Box 1.3

<table>
<thead>
<tr>
<th>Research tradition</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diffusion of innovation</td>
<td>Innovation originates at a point and diffuses outward (Ryan, 1969).</td>
</tr>
<tr>
<td>Rural sociology</td>
<td>People copy and adopt new ideas from opinion leaders (Ryan and Gross, 1943).</td>
</tr>
<tr>
<td>Medical sociology</td>
<td>Innovations spread through social networks (Coleman et al., 1966).</td>
</tr>
<tr>
<td>Communication</td>
<td>Persuading consumers while informing them (MacDonald, 2002). More effective if source and receiver share values and beliefs (MacGuire, 1978).</td>
</tr>
<tr>
<td>Marketing and economics</td>
<td>Persuading consumers to purchase a product or service. Mass media creates awareness; interpersonal channels promote adoption (MacGuire, 1978).</td>
</tr>
<tr>
<td>Development studies</td>
<td>Social inequities need to be addressed if widespread diffusion is to occur across different socioeconomic groups and lead to greater equity (Bourdenave, 1976).</td>
</tr>
<tr>
<td>Health promotion</td>
<td>Creating an awareness of the problem and offering a solution through social marketing. Messengers and change agents from target group increase success (MacDonald, 2002; Rogers, 1995).</td>
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(Continued)
Models and frameworks for implementing evidence-based practice outlines the research traditions and some key findings derived from the research.

The many different research traditions have used diverse research methods that at times produce contrasting results. For researchers, it offers significant flexibility in research design and depends on the research questions being asked and tested. For clinicians and managers, research theories offer guidance for developing interventions by exposing essential elements to be considered. These elements are often grouped at individual, organizational, and environmental levels, as they require different activities and strategies to address the element. The following section offers a limited review of the different attributes that are known to influence the success of implementation and need to be considered prior to implementing evidence into practice.

**Box 1.3 (Continued)**

<table>
<thead>
<tr>
<th>Research tradition</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evidence-based medicine</td>
<td>No causal link between the supply of information and its usage. Complexity of intervention and context influence implementation in real world (Greenhalgh et al., 2004).</td>
</tr>
<tr>
<td>Organizational studies</td>
<td>Innovation as knowledge is characterized by uncertainty, immeasurability, and context dependence (Greenhalgh et al., 2004).</td>
</tr>
<tr>
<td>Narrative organizational studies</td>
<td>Storytelling captures the complex interplay of actions and contexts; humanizing and sense-making, creating imaginative and memorable organizational folklore (Greenhalgh et al., 2004; Gabriel, 2000).</td>
</tr>
<tr>
<td>Complexity and general systems</td>
<td>Complex systems are adaptive, self-organizing and responsive to different environments. Innovations spread via the local self-organizing interaction of actors and units (Plsek and Greenhalgh, 2001).</td>
</tr>
</tbody>
</table>

*Source: Adapted from Greenhalgh et al. (2004).*
Attributes influencing successful implementation

Unlike the rapid spread associated with some forms of technology, which may simply require the intuitive use of a gadget and little persuasion to purchase it, many health care changes are complex interventions requiring significant skills and knowledge to make clinical decisions prior to integration into practice. Not surprisingly then, implementation of evidence into practice is mostly a protracted process, consisting of multiple steps, with varying degrees of complexity depending on the context. Numerous challenges arise out of the process that can be categorized into following five areas (Greenhalgh et al., 2004): the evidence or information to be implemented, the individual clinicians who need to learn about the new evidence, the structure and function of health care organizations, the communication and facilitation of the evidence, and lastly, the circumstances of the patient who will be the receiver of the new evidence. These challenges need to be considered when tailoring interventions and strategies to the requirements of various stakeholders (Bucknall, 2006).

The evidence

There is much literature indicating that the characteristics of the evidence are an important consideration in planning implementation. Different types of evidence are known to spread at different rates. Characteristics of evidence include the type of evidence available to be implemented, the quality of the particular evidence, and the volume of evidence available to the decision maker such as a single RCT or a systematic review of multiple studies. These characteristics will all influence the rate, extent, and adherence of adoption by different individuals. In Rogers (1995) seminal works, he identified six major attributes of evidence that affect its uptake and sustained adoption. These included the relative advantage offered by the evidence to the patient or the clinician. First, clinicians must be able to clearly identify the benefits for patients or their own practice, either for improving patient outcomes, reducing harm, increasing access to resources, or decreasing costs. Second, the adopter’s values and practices must be compatible with the evidence. Third, the more complex the evidence, the more difficult it will be for the clinician to use and to integrate into practice. Fourth, the degree to which the evidence can be tested on a limited basis, known as trialability, is important.
Trialing the evidence allows clinicians to practice and minimize any harmful or unexpected events associated with the implementation. Fifth, the adoption of evidence is also more likely when clinicians can observe others using the evidence; it provides some reassurance about the processes and minimization of harm for patients. Finally, to integrate the evidence into differing contexts, clinicians may need to reinvent, refine, or adapt the evidence to suit their own and their organizational needs (Rogers, 1995).

However, in their systematic review, Greenhalgh et al. (2004) argued that Roger’s list of evidence attributes does not completely explain the adoption and adherence of complex health service innovations. New constructs have evolved from health service studies such as the importance of assessing the evidence in terms of relevance and usefulness for a specific task; the feasibility of implementing the change, the degree of implementation difficulty because numerous disciplines and specialties are involved; the ability to break the process into components to implement sections sequentially; and the prior knowledge and skills needed to use the evidence such as implementing new technology (Agarwal et al., 1997; Greenhalgh et al., 2004, Yetton et al., 1999).

The individual clinician

Much early research paid close attention to characteristics of the individual in attempting to understand the reasons for the research–practice gap (Champion and Leach, 1989; Coyle and Sokop 1990; Estabrooks et al., 2003; Rodgers, 2000). One of the challenges frequently identified is the prior knowledge and skills of the individual clinician. To assimilate the evidence into practice, clinicians need to be able to critically appraise the evidence to determine its validity and reliability. If they lack these basic educational skills then their ability to assess contradictory evidence and decide on the right course of action will be impaired (Bucknall, 2006; Bucknall et al., 2008). Not only must clinicians weight the evidence, the volume may also require significant time to reflect and process the information. Again, this may depend on the ability of the individual as to the time taken to digest the information.

Personality traits such as motivation, learning styles, and the individual’s capability will also determine adoption (Greenhalgh et al., 2004). Weinert (2002) suggested that depending on the organizational
context at the time, the individual may assign greater meaning to the evidence and thus be more receptive to practice changes. The changing concerns and priorities, commonly associated with health care, may motivate different individuals at different stages throughout the process; each individual will have distinct personal makeup, knowledge and clinical experience, and as a consequence, unique concerns (Hall and Hord, 1987).

To a greater or lesser extent (and differently in different contexts), individuals seek innovations out, experiment with them, evaluate them, find (or fail to find) meaning in them, develop feelings (positive or negative) about them, challenge them, worry about them, complain about them, work round them, talk to others about them, develop know-how about them, modify them to fit particular tasks, and attempt to improve or redesign them—often (and most successfully) through dialogue with other users. (Greenhalgh et al., 2004: 163)

The health care organization

More recently, the failure of successful implementation in health care organizations has been attributed to the disregard shown toward organizational attributes or contextual factors. Organizational attributes are described as “those characteristics of health-care organizations, or units within those institutions, and of governance structures outside of those institutions that facilitate the dissemination and uptake of research findings” (Estabrooks, 1999: 61).

It is well recognized that organizations vary enormously within and between each other, hampering generalizability of research findings on implementation from one site or unit to the next. Indeed, the challenge for clinicians and managers is to overcome the structural determinants such as size, duration of establishment, degree of specialization, and decision-making structures known to influence knowledge transfer and uptake (Greenhalgh et al., 2004). Greenhalgh et al.’s (2004) review showed that organizations were more likely to be successful at evidence integration if they have the capability to analyze, reframe, and combine the information with existing knowledge, that is, organizations with greater absorptive capacity. Organizations must also be receptive to change, taking risks, and experimenting with new evidence. The climate of the organization is shown to be fostered by strong leadership at managerial level and also within the
clinical units (Bucknall, 2006). In addition, a culture of continuous learning is needed, appraising first and then using new knowledge and knowledge generated from monitoring changes, feeding back the information for refining the process within and across disciplines (Greenhalgh et al., 2004).

Externally, informal interorganizational networks have been shown to be influential in successful practice change. It would appear though that a threshold proportion of organizations may be required to change before influencing others to do so. In contrast, an organizational network can be a negative effect that deters others from trying the change (Burns and Wholey, 1993; Valente, 1996) or stimulate a competitive environment (Castle, 2001). This has been useful in guideline implementation across quality improvement collaboratives when data is compared between organizations (Ovretveit et al., 2002). Policy makers have been shown to have some influence although the success may be determined by the capacity to change (Fitzgerald et al., 2002).

**Communication and facilitation**

In a classic study, Innvaer et al. (2002) reviewed 24 studies on research use by policy makers and found the primary facilitator and barrier of research use was personal contact (13/24) or lack thereof (11/24), respectively. Therefore, it comes as no surprise that communication with social contacts and networks have proven effective in transferring knowledge and increasing uptake of new evidence.

Four approaches have shown positive outcomes. The social network approach has been successful in different professional groups in health services. A social network is a group of people within a social system that provides friendship, advice, support, and communication (Valente, 1996). West et al. (1999) found that nurses had formal vertical networks whereas doctors had more informal horizontal networks. Vertical networks tend to cascade authoritative decisions more successfully, while horizontal networks wield greater influence during the reframing of evidence for local consumption (West et al., 1999). In addition, there is greater success likely during implementation if the social network has similar educational, professional, and socioeconomic backgrounds (Rogers, 1995).

Change champions are another frequently used approach to endorse adoption of new evidence in organizations. Change champions are
individuals who continually promote and support the use of new evidence within the group. Usually they are passionate experts, respected and informal leaders who have positive working relationships with other professionals (Greenhalgh et al., 2004). Change champions can be placed at any level of the organization and provide differing roles.

The third approach for promoting practice change, influencing the actions and beliefs of their peers are opinion leaders (Locock et al., 2001). Similar to change champions, opinion leaders operate at different levels of the organization. They can be internal, external, and peer opinion leaders. In general, opinion leaders are local, respected sources of influence trusted among their peer group to appraise new information and reframe it in the context of the local situation. They are accomplished in role modeling, influencing peers, and altering group norms (Rogers, 1995). Opinion leaders may also have a negative influence on the success of an intervention deterring their peers from using the evidence (Locock et al., 2001).

A fourth approach for communicating evidence is through boundary spanners. Boundary spanners appraise and filter the evidence before disseminating it throughout the organization (Rogers, 1995). Their extensive social ties, both within and across organizations, link organizations experienced in the uptake of evidence to those yet to experience or in early stages of adoption.

The patient

Patient involvement in health care delivery can improve the success of implementation studies (Wensing et al., 2005). From the early days of EBP, Sackett et al. (1996) argued that clinicians must take account of the patient’s condition, baseline risk, values, and circumstances when making decisions about health care treatments. The inclusion of patient preferences into models of EBP demonstrates the growing support for patient involvement in health care decisions. The aim of involving patients in treatment decisions is to allow the patient to make health care decisions that accurately reflect their preferences and values (Bucknall, 2006). Benbassat et al. (1998) argued there is a lack of consistency by clinicians in assembling information on patient’s values and preferences during treatment selection. Providers’ beliefs of importance and what patients actually want may in fact be disparate. Similar to other individuals, patients
are influenced by the type and stage of their illness, age, gender, culture, and socioeconomic status (Caress et al., 1998; Pierce and Hicks, 2001). O’Connor et al. (1999) believe that health treatments always have advantages and disadvantages; therefore evidence alone cannot determine the best choice of treatment. Although the trade-offs for many clinical decisions are clear, there are occasions when there is a precarious balance between risks and benefits, and choices will differ across patients (O’Connor et al., 1999).

Given we are all consumers of health care resources at some point in our lives, most of us would prefer the ability to choose the latest and most effective treatments and interventions to improve our situation. When patients have the capacity to understand and analyze information, they prefer a shared decision-making model (Degner et al., 1997; Edwards and Elwyn, 2004).

The increased availability and accessibility to multimedia technology has ensured that patients and clients have increasing access to the same or similar information as clinicians. Searches of the Internet highlight the choices available for patients, potentially increasing their involvement in health management decisions and guiding the treatments administered by clinicians. Yet little is known about the role of the patient in promoting the rate of adoption among clinicians (Bucknall et al., 2004; Wensing et al., 2005). Patient-mediated interventions have been targeted at different stages: the decision to seek medical treatment and care; before and during contact with clinicians; and after care is delivered, for feedback on service (Wensing et al., 2005). Greater responsiveness to patients may improve patient outcomes and the success of implementation.

Table 1.1 identifies the main elements and subelements that need to be considered during implementation of evidence into practice. It offers examples of questions for each subelement when planning an implementation strategy.

**Why this book?**

The application of knowledge into practice to improve patient care and outcomes is fundamental to health care. Yet our ability to translate knowledge into practice continues to be slow, fraught with challenges, and at times unsuccessful. The objective of this book is to provide a critical analysis of models and approaches for implementing
Table 1.1 Considerations for the successful implementation of evidence into practice

<table>
<thead>
<tr>
<th>Element</th>
<th>Subelements</th>
<th>Questions for planning implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evidence</td>
<td>Type of evidence</td>
<td>Is specific evidence available? Is it accessible? What is its quality? Does a relative advantage exist? Will patients benefit from receiving the EBP? Will anyone else benefit?</td>
</tr>
<tr>
<td></td>
<td>Compatibility</td>
<td>How compatible is the evidence with practice?</td>
</tr>
<tr>
<td></td>
<td>Complexity</td>
<td>How complex are the interventions? Are different levels of clinicians involved? Are different disciplines involved in the process? What do we need to change?</td>
</tr>
<tr>
<td></td>
<td>Trialability</td>
<td>Can we trial different approaches to implement the same evidence? Can we adapt what we have or do we need a new approach?</td>
</tr>
<tr>
<td></td>
<td>Observability</td>
<td>Can we see how others implement the evidence before we try it?</td>
</tr>
<tr>
<td></td>
<td>Reinvention</td>
<td>Do we need to adapt the evidence to suit local conditions? How can we do this?</td>
</tr>
<tr>
<td>Clinician</td>
<td>Personality</td>
<td>What motivates the clinicians? What learning styles will be required to understand the evidence? What approach will best suit the clinician?</td>
</tr>
<tr>
<td></td>
<td>Meaning</td>
<td>How important is the problem to the clinician?</td>
</tr>
<tr>
<td></td>
<td>Independence</td>
<td>Can the clinician make the decision to implement or is permission needed?</td>
</tr>
<tr>
<td>Context</td>
<td>Structural</td>
<td>What type of management structure is in place?</td>
</tr>
<tr>
<td></td>
<td>determinants</td>
<td></td>
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<tr>
<td></td>
<td>Absorptive</td>
<td>Who is responsible within the organization for analyzing and reframing the information suitable for local use? Is it a learning culture that fosters widespread interdisciplinary sharing of evidence?</td>
</tr>
</tbody>
</table>

(Continued)
<table>
<thead>
<tr>
<th>Element</th>
<th>Subelements</th>
<th>Questions for planning implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Receptive to change</strong></td>
<td></td>
<td>Is this evidence critical for the organization? Is there executive support for the change? Who is monitoring the change? What audit and feedback system is in place? What quality indicators are measured?</td>
</tr>
<tr>
<td><strong>Interorganizational networks</strong></td>
<td></td>
<td>What interorganizational networks are in place to share information? Do these need to be built or fostered?</td>
</tr>
<tr>
<td><strong>Communication and facilitation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Social networks</strong></td>
<td></td>
<td>What approaches will foster evidence transfer and uptake? How might these be established or enhanced? Do different professions have different types? Is there sufficient interdisciplinary and specialty crossover?</td>
</tr>
<tr>
<td><strong>Homophily</strong></td>
<td></td>
<td>What are the staff demographics of the organization?</td>
</tr>
<tr>
<td><strong>Change champions</strong></td>
<td></td>
<td>Who are the likely change champions in the organization? Are they specialty change champions?</td>
</tr>
<tr>
<td><strong>Opinion leaders</strong></td>
<td></td>
<td>What types of opinions leaders are contained within the organization? Are external opinions leaders present?</td>
</tr>
<tr>
<td><strong>Boundary spanners</strong></td>
<td></td>
<td>Who is a likely boundary spanner? Does the organization have links with external boundary spanners? What professional groups need to be accessed?</td>
</tr>
<tr>
<td><strong>Patients</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Level of involvement</strong></td>
<td></td>
<td>Does the patient wish to be involved? How could the patient be involved?</td>
</tr>
<tr>
<td><strong>Competence</strong></td>
<td></td>
<td>Is the patient competent and able to be involved?</td>
</tr>
<tr>
<td><strong>Meaning</strong></td>
<td></td>
<td>How important is the problem to the patient?</td>
</tr>
<tr>
<td><strong>Personality</strong></td>
<td></td>
<td>What motivates the patient? What approach should be taken?</td>
</tr>
</tbody>
</table>

EBP into a range of health care settings. In doing so, it will provide readers with a selection from which to choose the most appropriate model or approach to assist them in a successful implementation strategy for an assortment of evidence, individuals, and contexts.

While teaching EBP to students for more than a decade and in conducting implementation projects across health care settings, many barriers were encountered. In particular, the need to select a strategy suited to the type of evidence, the individuals involved and the local context were highlighted. In university courses, we gave students a range of models from which to select and develop a strategy for a change within their own practice setting. In making a selection, students offered critiques of alternative models and approaches, particularly in relation to their own skills, the resources available to them and the local context in which the change strategy needed to be applied. Not surprisingly, the selection and rationales for choosing models were widely varying and often difficult to make.

We have selected a range of models and frameworks that have been used internationally across settings from primary health to critical care. All these settings involve nurses and other health professionals working to deliver quality care to individuals with compromised or potentially compromised health and well-being. All the models have been subjected to external evaluation or testing and are potentially transferable across contexts. We have asked the authors of the chapters to provide background information on the type of model, the level at which it is best suited in application, the theoretical underpinnings, the settings the model has been used in and by which professional groups. Authors will summarize the testing and evaluation of the model as well as the practicalities and challenges in implementing the model in differing contexts. To conclude each chapter, authors will outline future research required in testing the model further.

Using the book

In identifying a gap in the resources to support planning and implementation of evidence into practice, we have structured the book to support international readers in their selection of an appropriate model for their local environment, to develop their understanding of its components, and more specifically to increase the uptake of evidence in practice.
Following the introduction, a chapter will take readers through existing knowledge translation theories and models in implementing EBP. The chapter will outline an approach to critically analyzing the selected models. Chapter 3 begins with one of the early models developed more than three decades ago in the USA by Stetler and Marram (1976). Chapters 3–10 will proceed through to the most recent models published in the literature, concluding with a Canadian framework, published 30 years after the original Stetler model.

In Chapter 11, we provide a narrative synthesis of all the models, integrating information to provide a useful summary and direction to people on the appropriateness of particular models for specific implementation issues and projects. The final chapter provides a summary and concludes with an outline of implications for implementing evidence into practice.

References


