Read, Think, Do!: a method for fitting research evidence into practice

Sarah Winch BA PhD RN
Adjunct Senior Lecturer, School of Social Science, University of Queensland, Brisbane, Queensland, Australia; and Nursing Director Research, Nursing Practice Development Unit, Princess Alexandra Hospital, Brisbane, Queensland, Australia

Amanda Henderson BSc MScSoc PhD GradDipNurs RN RM ICUCert
Adjunct Associate Professor, School of Nursing, Griffith University; and Nursing Director Education, Nursing Practice Development Unit, Princess Alexandra Hospital, Brisbane, Queensland, Australia

Debra Creedy BA MEd PhD RPN
Professor and Dean, Faculty of Health, Griffith University, Brisbane, Queensland, Australia

Accepted for publication 6 July 2004

Correspondence:
Sarah Winch,
Building 18,
Princess Alexandra Hospital,
Ipswich Road,
Woolloongabba,
QLD 4102,
Australia.
E-mail: sarah_winch@health.qld.gov.au


Read, Think, Do!: a method for fitting research evidence into practice

Aim. This paper discusses a process for research utilization that overcomes well-known barriers in order to influence clinical decision-making and practice change. Read, Think, Do! is a problem-solving approach to research utilization and practice development which has the potential to overcome barriers to research utilization.

Background. Any process for research utilization at the practice level needs to overcome numerous barriers in order to influence clinical decision-making and practice change. Access to research-based knowledge is an obvious first step in the evidence-based approach to care delivery, but is clearly inadequate alone in influencing the improvement of practice.

Discussion. Read, Think, Do! acknowledges the complexity of problem-solving processes from the outset by looking for (1) the evidence, (2) assessing the value to practice, and (3) addressing the social and cultural milieu of the practice setting to ascertain the best strategies for initiating and sustaining practice change. This approach draws distal forms of empirical knowledge that have the capacity to improve patient outcomes into the proximal knowledge base of the clinical nurse. This is achieved by collaboration, planning and evaluation involving all levels of staff and a specialist facilitator, the Clinical Nurse Consultant in evidence-based practice.

Conclusion. Read, Think, Do! is a method of research utilization and practice development that has the potential to overcome barriers to research utilization and avoid the ‘misplaced concreteness’ that can occur when trying to fit empiricism into practice. By addressing the breadth and diversity of issues surrounding research utilization in a systematic manner it presents a sustainable method for practice change informed by evidence.

Keywords: research utilization, nursing, evidence-based practice
Introduction

Evidence-based practice (EBP) is defined as the ‘conscientious, explicit and judicious use of theory-derived, research based information in making decisions about care delivery’ (Ingersoll 2000, p. 152). Despite what looks to be an uncomplicated, linear process, incorporating evidence into practice is beset by difficulty as it needs to occur within the complex organization of health care. What is needed to integrate evidence into practice effectively is a process that addresses not only the social and organizational context of health care, but recognizes the often-covert knowledge embedded within healthcare practice. In this paper we propose a response to this challenge; by reviewing the barriers and known facilitators of research utilization, we introduce the Read, Think, Do! method of research use and practice development that draws on a variety of measures that have demonstrated success.

Read, Think, Do! acknowledges the complexity of the problem-solving processes from the outset by looking for the evidence, assessing the value to practice, and addressing the social and cultural milieu. The ‘Read’ step involves accessing the breadth of research findings that will sufficiently inform a change to practice. Step 2, ‘Think’, involves critical thought about the applicability to the clinical setting, while the final step, ‘Do’, involves organization of the effective implementation of the practice change within a local culture. This attempt to incorporate the knowledge embedded in complex contexts of care with evidence obtained from the research literature through a simplified problem-solving approach is currently being tested in an Australian teaching hospital.

Barriers to research utilization

The nursing literature is replete with what have been termed ‘barriers’ to research utilization, such as the unmet demand for high quality nursing research-based findings (Funk et al. 1991, Pearcey 1995, Parahoo 1997, Walsh 1997, Dunn et al. 1998); inadequate educational preparation of nurses in research (Veeramah 1995, Walsh 1997, Dunn et al. 1998, McCaughan et al. 2002, Oranto et al. 2002), and wider organizational factors such as lack of line manager support and lack of time (Hicks 1993, 1995, Lacey 1994, Rodgers 1994, Chapman 1996, Walsh 1997, Kajermo et al. 1998, Retsas & Nolan 1999, Retsas 2000). Hicks (1996) proposed that a lack of motivation, interest, confidence and belief in the value of research at a personal level hindered utilization. Champion and Leach (1989) found that attitudes had the highest correlation with research use when compared with other factors, such as availability of research results and support from colleagues. Predominantly, however, these barriers have been conceptualized as issues with individuals, resulting in a flurry of educational programmes to enhance the individuals’ ability to retrieve, interpret and incorporate research findings at the unit level (Eccles et al. 1996, Gray et al. 1997, Hundley et al. 2000). However, there is increasing recognition of the role of the organization in promoting the use of research in practice (Luker & Kenrick 1995), particularly in constructing a research friendly culture through appropriate infrastructure.

Models of research utilization

 Whilst there is agreement in broad terms about the barriers to research, the identification of facilitators to the use of evidence is less clear but these are likely to include the culture (attitudes of the end users of research) and tradition within the particular organization (Milne & Hundley 1998). Drawing on a change model proposed by Crane (1985), Gerrish and Clayton (1998) implemented a coordinated approach among a group of researchers, administrators and staff in a large acute hospital to promote the application of research in practice. The approach was informed by an assessment of practitioners’ perceptions of barriers to the use of research, a survey of work practice, and random record audit to assess the extent to which practice reflected recommended best practice. Having identified the areas of practice that merited change and the perceived barriers, the researchers worked with staff to develop organizational change strategies. However, they did not report any quantitative evaluation of these initiatives or outcome measures to indicate the success or otherwise of the various programme components. In addition, Crane (1985) and Gerrish and Clayton (1998) assume that the users of research are a homogeneous group in terms of attitudes, abilities and activeness towards valuing, understanding and implementing research.

In order to increase the use of research, a number of local issues recognizing the heterogeneity of users need to be addressed. The EBP implementation guidelines produced by the National Health Service in the United Kingdom (NHS 1999) suggest a broad ‘diagnostic analysis’ to identify factors likely to influence the proposed change to EBP. This does not refer simply to strategic or organizational issues, but also includes the practice, behaviour and attitudes of individual professionals (Newell 1997). The NHS review found that a variety of strategies are needed to effect what is basically a behavioural change – getting professionals to read and apply evidence (Wensing & Van der Weijden 1998) – and that the successful implementation of guidelines largely depended on the simplicity of guidelines and their congruence with local
circumstances (Grilli & Lomas 1994). In addition, targeted education and feedback through audit also had been found to improve the quality of care (Anderson & Lexchin 1996). The NHS review also found that continuing nursing education had a positive effect on nursing practice (Waddell 1991).

However, a recent systematic review of Continuing Professional Education (CPE) strategies (Farmer et al. 2003) concluded that the provision of printed educational materials may prompt intentions for change, but this is generally insufficient to achieve a substantial impact on work practice. More active interventions (giving audit results, feedback on work practices, etc.) did not appear to produce substantial changes in practice and were more costly. Farmer et al. (2003) acknowledged that the studies they reviewed lacked rigour, gave sparse outcome data, had poor reporting, and inappropriate analyses.

While the NHS (1999) work acknowledged that research utilization requires considerable developmental work, it only focussed on national performance measures and indicators, and did not address issues confronted by individuals in the adoption of research-based practice in the workplace. Barriers to research use may also be considered as ‘symptoms’ of organizational contexts that have not been established to approach systematically the integration of evidence into practice. Five key factors that relate to organizational contexts are employer and/or manager support and encouragement, time, support from colleagues and teamwork, access to findings, and enthusiastic, motivated staff (Parahoo & McCaughan 2001, p. 26). Likewise Oranto et al. (2002) discovered that the facilitators with the greatest impact for research utilization related to the setting, and in particular, these were charge nurses and collaboration between administrators and clinical staff. Such findings support the need for a systematic approach by the organization to support research and access to research findings, as well as including on the practice change team ‘knowledgeable staff’ who are part of and can identify the local context.

**Informing clinical decision-making**

Of particular concern in the wider health-based literature is the imposition of a purely scientific model of care delivery into a rich practice setting which draws from many different forms of knowledge to enact decisions and construct practice. In common with evidence-based medicine, evidence-based nursing involves applying evidence based on comprehensive evaluation of all relevant research relating to a clinical question. Systematic reviews which cull and rank evidence according to its empirical validity are then used to inform practice guidelines. The ‘generalizable truth’ which is obtained from such empiricism has been termed ‘misplaced concreteness’ (Whitehead 1925), referring to the practice of viewing summaries of statistics as hard realities. Greenhalgh (1999) extends this term to encompass the incongruity experienced when trying to apply the concrete approach of empirical science to medicine. This type of knowledge has been categorized as knowledge for practice, or distal knowledge (Clarke & Wilcockson 2002). It is relatively prescriptive, and practitioners struggle to feel a sense of ownership of it.

In a widely quoted response to the issues of trying to fit empirical evidence into clinical practice, Sackett et al. (1996) argue that:

> the practice of evidence-based medicine means integrating individual clinical expertise with the best available clinical evidence...By individual clinical expertise we mean the proficiency and judgement that individual clinicians acquire through clinical experience and practice (pp. 71–72).

Individual clinical expertise has been termed context-specific knowledge as it is derived from practice. Clarke and Wilcockson (2002) argue that in nursing this type of knowledge is derived from broader issues in the environment, such as staffing levels, staffing mix and type of service being provided. This ‘proximal’ knowledge does not meet the strict scientific criteria for generalizability (Clarke & Proctor 1999), but does engender a strong sense of ownership by practitioners and hence addresses the key factors previously identified as barriers to the utilization to research. A sense of ownership by the end user potentially enhances interest and motivation and contributes to a positive attitude, all of which are vital to a shift in organizational culture.

Trinder (2000) contends that stable forms of distal knowledge (such as evidence-based guidelines) can inform clinical decision-making, but it is the proximal knowledge of the practitioner which is used to judge the efficacy of the evidence. Clinical decision-making and practice development are located in the ever changing and volatile proximal knowledge sphere. The *Read, Think, Do!* method for research implementation seeks to bring the distal and proximal knowledge arenas together to promote evidence-based clinical reasoning and practice development within a problem-based approach and using a research trained facilitator, as illustrated in Figure 1.

**Collaboration, facilitation, research evidence and practice development: an overview of *Read, Think, Do!***

The *Read, Think, Do!* method is used at the local level. It involves a clinical unit team comprising the unit manager,
educator, senior and junior clinicians, allied health and medical staff identifying an area of their practice which is of concern or problematic to them. The composition of this team is critical: it involves all levels of staff, thus ensuring a commitment from management in terms of time to undertake the process, and support from colleagues in the critical review the practice change that is required. Where possible staff who are considered ‘opinion leaders’ should also be included. They are then joined by the Clinical Nurse Consultant: Evidence Based Practice (CNC:EBP), who researches their topic and produces the relevant guidelines for them to read. The CNC:EBP reviews the research evidence against standard practice to identify any gaps in practice or changes that need to be made. The team then thinks about the application of these guidelines or research evidence within their local context. For example, what changes will need to be made and at what level? How can the organization respond to and support these changes? Once all the considerations have been identified, the CNC:EBP develops a structured plan with the specific progressive modifications to practice and accompanying activities to facilitate the changes needed and relevant performance indicators so that the changes can be evaluated. Once practice change has occurred, the process can start again on another locally identified issue.

In conjunction with all levels of clinical staff, the CNC:EBP locates the most appropriate research guidelines for an identified clinical problem. At this point, the problem-solving model constructed by Lewin (1947) is introduced. When applied to EBP, this model constitutes a user-oriented approach to research utilization which has the potential to give practitioners ownership of research-based or distal knowledge. In a series of patterned activities with which many Australian nurses are familiar (Creedy et al. 1992, Creedy & Hand 1994), the problem-solving model starts with identifying a problem or need, searching for a solution or innovation, adapting this to meet user needs, and evaluating the effectiveness of the whole process (Crane 1985). The user (who in this case is the clinical unit) is the driver of this method. This means that the identified problems arise from the proximal knowledge (clinical practice) arena and should be significant to all staff working in the unit, including the manager, clinicians and educators. Problems may be drawn from a variety of sources, such as accident and incident data, patient complaints, difficult clinical cases, or in response to predicted changes in casemix. Once the problem has been identified, the evidence addressing the problem (distal knowledge) can be introduced to inform clinical reasoning. The introduction of distal knowledge needs to be reviewed in the context of practice. Tacit knowledge (Benner 1984) drawn from the intuitive base of nursing practice needs to be articulated, recognized and reconciled with the empirically based distal knowledge. We have clear evidence that this problem-based process can work when we consider everyday nursing practice. Purely empirical or scientific (distal) knowledge is regularly incorporated into the proximal knowledge base of nurses when they consult a drug reference text to confirm or discover medication names, dosage or interactions. What is significant about this example is that it is problem-based, highly relevant to the clinician, accessible and intelligible, and able to be incorporated quickly and easily into the proximal arena to inform practice.

Overcoming the barriers step by step

‘Read’: accessing and reading the literature

Scientifically validated evidence has been categorized as distal knowledge, and it is likely to stay that way within the busy ward environment unless a facilitator is available who can access the literature and demonstrate its applicability to the practice setting. With this method it is the responsibility of the CNC:EBP to retrieve well-reviewed evidence on the clinical issue identified by unit staff. The use of a facilitator has been advocated by several authors (Webb 1989, Kitson et al. 1998, McCormack et al. 1999), and this person needs to be trained in research methods and utilization. Whilst Pearcey and Draper (1996) and McCormack et al. (1999) identified the limitations of an ‘outsider’ and recommend using an internal facilitator, this may not be possible given the considerable skills needed by this person. The use of a facilitator allows the introduction of a ‘resource nurse’ role for someone not only skilled in research retrieval, methods and utilization, but also has the educational skills to clarify...
research findings and present them in a manner suitable to clinicians. This overcomes one of the most frequently cited barriers to research utilization, namely the inability to access relevant research findings because of poor retrieval, or research evaluation skills.

The evidence-based guidelines do not necessarily have to be drawn from the nursing literature, where there can be a paucity of well-conducted studies. Scientifically validated evidence from other disciplines may have the capacity to influence clinical decision-making. For example, nurses working with chronically ill children may be interested in the evaluation of the psychological interventions for these children (Kibby et al. 1990) Cardiac rehabilitation nurses may find the Sheps et al. (1990) study of the role of acute carbon monoxide exposure in influencing cardiac arrhythmias useful in patient education sessions. The CNC:EBP can interpret the findings and present them to clinicians in language that is simple and credible (Luker & Kenrick 1995) for reading and critical comment.

‘Think’: the judicious use of evidence in a specific organizational context

The type of critical comment sought from clinicians will not arise from their knowledge of research methodology. This is unnecessary, as the CNC:EBP has advanced knowledge of research methods and is skilled in accessing studies which have already been evaluated. Instead, what is sought is a critical comment drawn from the proximal knowledge of clinicians that affects practice delivery. In this way, the many factors which influence decisions about patient care, such as ‘context, expert practice/experience and patients preferences and wishes’ (Closs & Cheater 1999 p17), can be taken into account. This is an important step in drawing distal knowledge into the proximal arena to provide the best ‘fit’ between the evidence and the clinical practice situation. The thinking and evaluating process promotes ownership of any practice change. This process needs to be addressed through a staged approach, possibly using ward education or meeting times. In these sessions (that need to incorporate all staff), the problem is agreed on and the evidence presented. Through discussion, debate and collaboration, a path is decided for how best to achieve implementation of the evidence and resolve the problem.

‘Do’: facilitating practice change

Finally, in each clinical setting a programme of planned practice change, informed by the evidence and the ‘think’ stage, is undertaken collectively by the team. What is required is a systematic approach to the practice change. Given that the imperative for change has arisen from a practice problem identified by all levels of staff, it is logical that all staff should be involved in undertaking the change. While different strategies are recognized, the use of facilitators and incorporation of discussion at staff meetings (Kajermo et al. 1998) are vital components of the change process. Using the Read, Think, Do! method, the facilitator (in this case the CNC:EBP) in conjunction with the unit staff identifies all of the elements of the practice change and develops a clear project protocol with realistic objectives, timeframes and performance indicators for evaluation. The feasibility of the protocol is then reviewed by staff at their unit meeting. In particular, senior staff should ensure that the necessary structural and procedural support has been identified and will be supplied. Clinical staff need to draw on their vast contextual knowledge to judge whether the planned practice change can work at the bedside. This involvement of all levels of staff in reviewing the project protocol ensures widespread ownership and that all elements in the ‘messy’ world of practice affected by the planned change have been considered.

Conclusion

To date, Read, Think, Do! is being implemented in two discrete nursing practice areas within a large tertiary teaching hospital. In both cases progress has been slower than anticipated as a result of the inherent busyness of healthcare service provision. Whilst a full evaluation is due to be completed in 2005, preliminary reports from nursing staff using the method indicate that there is increased acceptance of the use of research evidence if the practice problem affects work on a daily basis. An example from one unit involves the management of patients with co-diagnosis of dementia in an acute care facility. This is highly stressful for many staff, and evidence on how best to nurse patients with a dementing illness has been warmly received and is currently being implemented with enthusiasm. This reinforces a key aspect of Read Think Do!, that is, the evidence to be introduced needs to be of practical relevance to clinical staff. When this occurs, the value of using research evidence in managing clinical problems is highlighted, and we have noticed increased interest in learning about information retrieval skills and the research process.

We welcome contact and collaboration with nurses wishing to implement Read, Think, Do! into their practice settings. Practice development through the use of research evidence is not particularly easy and is definitely a slow process, but the rewards can be great for clinical staff and patients.
What is already known about this topic

- The implementation of research evidence into nursing practice is hindered by lack of organizational support and workplace culture issues.
- Nurses in practice use many different forms of knowledge to enact decisions and construct practice.
- Facilitators can assist in getting evidence into practice.

What this paper adds

- Nurses can draw on a wider variety of evidence to use in what is a very rich and complex practice setting.
- Nurses have always used evidence in their practice if the problem is relevant to them, for example use of drug information.
- The Read, Think, Do! method for research implementation brings the distal and proximal knowledge arenas together within a problem-based approach to promote evidence practice.

Author contributions

Study conception and design/Administrative support – SW, AH; Drafting of manuscript and revisions of manuscript – SW, AH, DC.

References


This document is a scanned copy of a printed document. No warranty is given about the accuracy of the copy. Users should refer to the original published version of the material.