# Views on evidence from nursing and midwifery opinion leaders

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SUMMARY

National registration standards in Australia require nurses and midwives to be educationally prepared to use an evidence-based framework for their practice. These standards assume a shared professional understanding of evidence and, an agreed approach towards educational preparation for evidence implementation. In this study, a qualitative phenomenographic approach is used to explore the ways in which nursing opinion leaders understand 'evidence' within the context of evidence-based practice (EBP). Semi-structured in-depth interviews were conducted with 23 nursing and midwifery opinion leaders across the state of New South Wales, Australia. The findings suggest that views of evidence are deeply imbedded within individual clinical, contextual and professional experiences, and are highly variable. Establishing basic consensus on the meaning of evidence for the nursing and midwifery context is fundamental to the successful educational preparation of nurses and midwives for EBP. It is proposed that future evaluations of EBP education in nursing and midwifery examine the assumptions on which such programs are based as individual variation may be a significant factor in both defining and measuring the success of educational interventions for evidence implementation

Keywords: Evidence-based practice, Education, Nursing, Midwifery

## Introduction

The concept of using evidence to contribute to better patient care is one that has universal support but which continues to stimulate lively debate (Miles et al., 2007; Murray et al., 2007). Among the range of factors known to impact on healthcare professionals in their use of evidence (French, 2005) there is one with significant potential to influence evidence implementation that remains largely unexplored. This factor relates to what 'evidence' actually means at the individual level (French, 2002; Rycroft-Malone et al., 2004), how it is understood within different research paradigms, and how it is eventually presented to students in education for professional practice.

Ineffective education is recognized as an important barrier to evidence-based practice (EBP) (Haynes and Haines, 1998; Gerrish et al., 2007) yet it is relatively rare to see nurses and midwives included in studies evaluating educational interventions for EBP (Shaneyfelt et al., 2006). In 2004, Kitson (2004) suggested that detailed discussion and analysis of educational requirements to implement and evaluate evidence-based healthcare reform in the nursing and midwifery professions was largely absent in the UK. Further, research from the UK (Newman et al., 2000; Banning, 2005), Europe (Egerod and Hansen, 2005), and the US (Pravikoff et al., 2005; Cadmus et al., 2008) continues to demonstrate that nurses, midwives and their professional leaders remain basically underprepared for evidence-based care. Innovations for improving education for EBP are starting to appear more frequently in the international literature (Meeker et al., 2008; Schmidt, 2008; Melnyk et al., 2008; Sherriff et al., 2007) and will undoubtedly lead to improvements in teaching and learning. In the meantime, however, many of the strategies to facilitate evidence integration appear to be based on the assumption that effective EBP education already occurs in most places (Ferguson and Day, 2007).

A study of Australian nursing education practices conducted more than ten years ago found wide variation in subject requirements and differences of opinion in both the necessity and format of research education at undergraduate and postgraduate levels (Axford and Carter, 1995). A more recent study from one Australian state has found little evidence of change (Waters, 2007). Since 2006, it has been a condition of professional registration in Australia that beginning registered nurses and midwives demonstrate competence in 'providing evidence-based nursing care to people of all ages and all cultural groups and practice within an evidence-based framework' (Australian Nursing and Midwifery Council [ANMC], 2006a, p. 4) and to 'ensure research evidence is incorporated into practice' (ANMC, 2006b, p.7). While some Australian educators have actively revised undergraduate curricula to prepare nurses for evidence implementation (Chaboyer et al., 2004), the overall approach to EBP education in Australia appears to be based on the assumption of a shared or common vision of what 'practicing within an evidence-based framework' and 'research evidence' actually means. Regardless of individual differences in the search for the meaning of evidence, there is a point at which the professions of nursing and midwifery in Australia must agree on a national approach to educational preparation for these competencies.

In this study, local nursing and midwifery opinion leaders were selected to investigate perceptions of 'evidence' in regard to the preparation of undergraduate nurses and midwives in the state of New South Wales (NSW), Australia. Opinion leaders were defined as those nominated by colleagues and peers as having influence on decisions about professional education and service delivery in NSW. Opinion leaders included those occupying positions that represent NSW nurses and midwives to the public and media, and who were leaders in education or government. The study aimed to examine the contribution opinion leaders might make towards formulating nurses' and midwives' attitudes towards EBP. It was based on the supposition that opinion leaders have the potential to influence individual understanding of EBP through their sanctioning of new ideas around educational and clinical objectives for evidence implementation (Doumit et al., 2007).

## Method

Although derived from phenomenology, phenomenography is a distinctly different method based on identifying and describing variation (Marton, 1981). An underlying principle of phenomenography is that the understanding of a phenomena will, in a sufficiently large sample of people, vary in a limited number of qualitatively different ways and therefore produce a limited number of descriptions that can be isolated and explained (Hasselgren and Beach, 1997). Phenomenography aims to distinguish between a first and second order perspective: what something is, and what is perceived to be. Concepts are derived from individual interviews but their description is at the collective level through the identification of categories of description. In this study, in-depth interviews were used as the empirical foundation to explore individual variation in the ways in which local (NSW) opinion leaders understand the phenomenon of 'evidence' for EBP in nursing and midwifery. A range of descriptions of evidence were derived from the interviews. Common features in the descriptions were isolated by forming categories of description, followed by the exploration of differences in the ways evidence is understood with- in and between individuals.

### Participant selection

Local opinion leaders from both metropolitan and rural areas of NSW were purposively sampled to obtain representation from the academic, management, and clinical practice settings. A letter describing the study and requesting an interview on the topic of EBP was sent to the Dean or Head of School of every university and college across NSW offering an undergraduate nursing or midwifery program (n = 10), as well as to opinion leaders in management or clinical roles (n = 10). A further three participants were later identified though snowball sampling. The conduct of opinion leader interviews was approved by the Human Research Ethics Committee of the University of Sydney.

### Conduct of interviews

It was initially anticipated that approximately ten in-depth interviews would be sufficient to describe the number of ways in which evidence for EBP is understood by opinion leaders. As the interviews progressed, however, it

became apparent that in order to represent the full range of views, it would first be necessary to establish the end points of the range of variation in order to de- scribe what appeared to be developing as a continuum. The inter- views had also exposed an inconsistency in participants' use of the words 'research' and 'evidence' which required further exploration.

At completion, 23 nursing and midwifery opinion leaders had been interviewed. The sample included at least one representative from each of the 10 universities and colleges in NSW offering an undergraduate program during 2004 or 2005. Participants' in nursing education and clinical leadership roles included four Deans, four Heads of School, three undergraduate program coordinators and six Professors of Nursing or Midwifery. Those in non-academic positions included two government appointed nurse leaders, the national (Australian) and state (NSW) representatives of an EBP organisation, the Director of a professional nursing college and a senior member of the state nurses and midwives registration board. Six participants were male and all were more than 40 years of age. Twenty-one of the 23 participants had a doctoral qualification.

Verbal and written consent was obtained prior to each interview, 22 of which were conducted face-to-face and the other by speaker telephone. One of the authors (DW) travelled throughout metropolitan, outer regional and rural locations of NSW to conduct the interviews in a place of convenience nominated by the participant. The length of interviews ranged between 50 and 80 min. An audio tape was used (with participants' permission) and field notes were recorded immediately following each interview to detail any special circumstanes or observations. In-depth semi-structured interviews commenced with the same lead-in question which aimed to encourage the opinion leader to focus on and establish their awareness of EBP. This was: What is your opinion on evidence-based practice in nursing? An interview guide was followed but the order and flow of questions was dictated by the participant. Set questions explored the participants' understanding of the word 'evidence' in the context of EBP and prompts were used as necessary to keep the conversation active, to pose questions contained in the interview guide and/or to clarify meaning. Interviews with the target sample of nursing opinion leaders continued until no new data emerged that was outside the range of views already expressed or was unable to be described by an existing category.

### Analysis of interviews

Table 1 describes the iterative and interactive steps recommended for the analysis of phenomenographic interviews (Barnard et al., 1999; Sjöström and Dahlgren, 2002) and used in analysing interviews for this study. Each interview was transcribed verbatim from the audiotape as soon as practicable and a copy posted to the participant for verification. Transcripts were each reviewed several times, with and without the accompanying audio tape (familiarisation). A colour-coding method suggested by Roberts and Taylor (2000) was then used to highlight concepts of interest within the transcript (compilation) and to organise the text (condensation). Details of the interview, initial concepts emerging from the data and any questions or follow-up required were noted on an interview cover sheet. A summary was attempted every three to five interviews such that earlier concepts were continually reviewed and refined.

Text of the same colour (representing concepts) was tagged to maintain a link to the original transcript and progressively copied into sub-files for identification of categories of description as described in Table 1.

The analytic process of forming categories of description in phenomenography seeks to differentiate, group and relate conceptual data rather than simply describe it (grouping). Categories of description are characterized by aspects of their structure (the combination of features discerned and focused on by the participant) and reference (the meaning that is outlined and attended to) (Marton and Pong, 2005). Amalgamation, division and ordering of the sub-files established category attributes and enabled naming and identification of variation within categories. This process continued until logical relationships between structure and meaning were established and a limited number of hierarchically ordered categories were evident (Steps 5–7 in Table 1). Categories representing the extreme ends of the range of understanding evidence for EBP were established first, followed by exploration of the variation within this range. Parsimony and internal consistency in the categories of description were collaboratively validated with another researcher and direct quotes from interview transcripts were used to demonstrate concurrence between the agreed categories and interview data. The small sample of quotes used in the results below identify whether the participant worked in a mainly Academic (teaching and clinical development) (A) or Managerial (M) role.

## Results

Throughout the interviews, nursing and midwifery opinion leaders expressed their scepticism over the economic and political issues associated with the evidence-based healthcare debate. While there was general support for the concept of using evidence to improve healthcare, EBP was not seen as the universal solution. There was also wide variation in the way participants described their understanding of evidence for EBP. At the simplest level of description, opinion leaders could be divided into those who believe that evidence can only be derived from research; and those who believe that evidence can be derived from many sources, such as individual experience.

The phenomenographic abstraction, reduction and comparison of interview data generated seven qualitatively different ways in which nursing opinion leaders appear to understand evidence for EBP. These seven categories are represented by the letters A–G in Table 2. Categories A and G are obviously quite distinct in structure as they represent the extreme ends of the range of opinion leaders' views. Other categories within the continuum reflect only small variations in the respondents' focus, such as for categories A and B, or C and D. This table presents the first stage of modeling the relationship between the seven categories from which are derived four main structural features that are discerned and focused on by the participant and that each represent a collective understanding.

Table 2 commences with opinion leaders describing their understanding of evidence in a relatively simple way as represented by categories A and B. Evidence comes from research, therefore, evidence is research. In category A, participant focus is externally located on research method, as described by one academic:

*There are questions that suit themselves very well to quantitative research … and because evidence-based practice is mightily aligned with quantitative research … those questions that are suited to quantitative research are also going to suit an EBP approach. [A1, Professor of Nursing]*

In category B, the focus is more internally located on the skills or knowledge required to understand research and therefore, to practice using evidence. This was described by another academic:

*Teaching something thoroughly and deeply relies on the fact that the person teaching it themselves has a thorough and deep understanding. . .and that's been a lot of the problem for us, you know, a lot of this confusion about what is evidence and what is evidence-based practice. [A2, Midwife and Acting Dean of Faculty]*

The conceptual ordering then builds to the next level of collective understanding in Table 2, which is represented by categories C and D. Based on the premise that research equates to evidence (in A and B), categories C and D collectively recognize that additional forms of input can be validated as evidence within the context of nursing and midwifery practice. In Table 2, for example, category C focuses on the fluidity and spontaneity of nursing and midwifery work. The centrality of the therapeutic value of the human presence or the experience of the nurse or midwife are seen by some opinion leaders as equally valid forms of evidence which exist outside, but in addition to the perceived rigid boundaries of research. For example:

*I've often described nursing as being a bit like opera – where you know what the cast is and you know what the plot is but you can have different sets, different artists, a different combination of artists, a different conductor, whoever, will give you a different kind of experience but it's still the same opera. And it relies on a basic script, you know, they play the same notes, they sing the same song. But what you experience is quite different according to who's performing it. [M1, Dean of Nursing Faculty]*

Category D (Table 2) represents a structure in which evidence is understood not only from the perspective of nursing and midwifery, but considers the broader bio-psychosocial context of the nurse's work. Valid sources of evidence named within this category were the patient's moral, cultural and ethical beliefs, parent plans for childbirth and the intimate aspects of caring and touch. It was suggested that as personal and professional values are difficult to measure, evidence for nursing and midwifery practice can be de- fined by factors other than what might traditionally be regarded as research. For example, one academic stated:

*There are some things nurses do . . .that are un-researchable. What difference does a smile make for example? It'd be difficult to research it, you know, the degree of smileness and all that. . .? And you end up sort of saying, well, in researching it you've lost the essence of it, and so, and I think that's where the qualitative people come to the problem [of defining evidence]. [A3, Head of University Nursing Department]*

The next level in the structural hierarchy (Table 2) is represented by categories E and F. These categories are differentiated by the notion of a practitioner making an active choice about the type of evidence that is best to use in a particular clinical context. In category E for example, descriptions of evidence

move outside the context of (only) nursing and midwifery practice to consider the patient and their clinical or perceptual context. The evidence is no longer tied to the professional perspective but is actively selected from whichever external source is regarded as the 'best available' for the clinical decision. Understood from this broader perspective, evidence can be 'weighed-up' for its relevance to the presenting context, for example:

> *Evidence-based practice…for me is, incorporating – where it is available – any research, any understanding – taking research in its broadest brush stroke into clinical-decision making along with all of the other skills of clinical decision-making. So, if that's the evidence, is it still the right thing for this person, in this place, at this time? [M2, Dean of Nursing Faculty]*

Category F takes this conceptual focus a step further by recognizing the contribution of clinical and organizational factors in the description of evidence. In this category, evidence-based clinical decisions are defined by the complex combinations of patient preference, clinician or team expertise and the clinical or cultural environment in which the best available evidence is decided.

This progressively deeper and more complex understanding of evidence is finally represented by category G in Table 2. Here, the opinion leader relays an understanding of evidence that is greater than the sum of professional or clinical parts and which focuses on the possibilities for EBP to increase effectiveness and efficiency in health care and thereby improve patient outcomes. Built on all previous levels in the hierarchy, this deeper understanding of evidence-based health care also brings with it a degree of cynicism as exemplified in this quote:

> *I'm caught between believing that it [EBP] is just another trend like the nursing process and that we'll get over it – and my very strong belief that nurses and other health professionals need to really seriously be grounded in what consumers actually need. So when I adhere to the latter view, I think that evidence-based practice, particularly when immersed in policy development, research protocols and research, teaching and learning methods around research, is a really very necessary way to make good judgements and good decisions. [M3, Deputy Executive Dean, Health Faculty]*

## Internal relationships between categories of description

Opinion leaders' collective understanding of evidence (in Table 2) forms a structure that ranges from a somewhat simplistic and internalized view where evidence is equated to research or scientific method (focus on research and method), to a broader experiential and externalized view that focuses on the role of evidence in improving health care (focus on effective health care). The selection and naming of categories in Table 2 permits further exploration of the internal relationships between the structural aspect of the participant, and the meaning that is ascribed to evidence in the referential aspect.

The full range of ways in which evidence for EBP is understood by nursing and midwifery opinion leaders in this sample is represented in the figure as a phenomenographic outcome space (Marton, 1981)(Fig. 1). The outcome space illustrates that opinion leaders' understanding of evidence varies in a limited number of qualitatively different ways, producing a number of descriptions that can be isolated and explained. The four collective structural aspects of

understanding evidence (from Table 2) are shown in hierarchical order down the left side of the diagram with the actual categories of description presented by the same letters used in Table 2. The referential lens (or meaning) aspects of the categories are depicted across the top of the figure.

The figure shows that opinion leaders attend to and ascribe meaning to evidence in three qualitatively different ways. These are related to their:

1. Previous exposure to research and evidence (research experience);
2. Background in education and clinical practice (professional experience) and/or;
3. Experience within the broader health care setting (experience of the health care environment).

Thus, the structural focus of categories A and B is ascribed meaning through the opinion leaders' previous exposure to different forms of research. Within categories C and D, evidence is given meaning through the opinion leaders own research, education and clinical experience (referential aspect) with a focus on how evidence is applied in their own nursing and midwifery practice (structural aspect). Categories E and F reflect a way of understanding evidence that is centred on the patient and the context of the clinical decision (structural aspect). Opinion leaders' reference or meaning is defined by their professional background or actual experience of applying evidence in nursing or midwifery practice. Similarly, for nursing and midwifery leaders who understand evidence within the broadest possible context (category G), structure and meaning are internally related within the phenomenographic outcome space to the wider goals of EBP. Their understanding of evidence relates to personal experience and knowledge of quality, efficiency and effectiveness in the healthcare environment. The figure suggests that relationships may also exist between other dimensions of the categories, such as those represented vertically down each column (A and C; B, D and E; F and G). The mapping of this complex relationship between individual experience, meaning and focus illustrates wide variation in how opinion leaders understand evidence for EBP.

## Discussion

Models aimed at behaviour change for EBP suggest that while local opinion leaders make only small contributions to educational effectiveness (Thompson et al., 2007), these leaders can be effective in implementing new ideas or innovations (Doumit et al., 2007). There is no clear explanation of how opinion leaders actually influence others, but it is suggested that their knowledge of local conditions and their credibility and status within a profession or community may contribute to the sanctioning of new ideas. In this way, opinion leaders can act as EBP champions by facilitating appropriate organizational and educational strategies, translating evidence for policy and practice, and modelling specific behaviours.

While individual ways of attributing meaning to the world are valued in nursing and by society in general, it is clear that in regard to EBP, nursing and midwifery opinion leaders in this study attributed very different meanings to 'evidence'. For some participants in this study, evidence was synonymous with research and

method, while for others, evidence was understood in relation to the broader aims of evidence-based healthcare – and there was a range of views between. A consequence of professional nursing and midwifery leaders' holding a range of views about EBP may be that their language and approach may be contributing to the already mixed messages nurses and midwives receive about using research and other evidence in their practice. This range of perceptions and understandings of evidence among a small group of Australian leaders has also been noted among nursing professionals in other countries (Banning, 2005; Rolfe et al., 2008).

It has been suggested that strong leadership will be required from nurses and midwives to successfully integrate EBP into their education and practice (Cunningham and Kitson, 2000). Others have identified the need for a commitment from administrators and opinion leaders to define what is (and what is not) evidence- based practice for their particular context (Stetler et al., 1998). Professional leaders in nursing and midwifery can potentially direct the cultural, educational and organizational change necessary to build an evidence-based framework for their professions yet evidence implementation strategies rarely explore or articulate the professional assumptions of evidence on which such strategies are based. Many strategies for EBP education have already been implemented but related research has focused mainly on the challenges faced by teachers and students, rather than on the effectiveness of the innovation (Oermann, 2007). While this does not simply a lack of effort on behalf of educators in this field, it does suggest that generally research in nurse education and specifically, research in EBP education, is lacking. Assessment of targeted educational preparation of (mainly) medical staff (Shaneyfelt et al., 2006) has found that EBP education has routinely included skills development in asking clinical questions, acquiring, appraising and applying research. This is despite mounting evidence that skills-based education for EBP is likely to be less effective than integrated teaching (Coomarasamy and Khan, 2004). There is also consensus across 15 countries that early career EBP courses should be directed toward changing attitudes and providing resources rather than developing isolated research skills (Yousefi-Nooraie et al., 2007).

Nursing and midwifery literature has been monotonously consistent in identifying lack of time, resources and skill as major barriers to evidence implementation. The findings of this study suggest, however, that fundamental decisions about where, when and what form EBP education should take are yet to be decided for the Australian context. While it is not surprising that the ways in which opinion leaders' understanding of evidence is influenced by their past and present experience, it is of concern that strategies proposed for educational preparation and evidence implementation in nursing and midwifery may be based on an assumption of shared professional knowledge and an agreed and organised approach. An examination of EBP and research content within under- graduate nursing programs in NSW suggests that this may not be the case (Waters, 2007). Therefore, we propose that failure to articulate assumptions and declare common goals for EBP education in Australia may actually be hampering beginning registered nurses and midwives in achieving and demonstrating competence against national registration standards for evidence-based care (ANMC, 2006a,b).

As part of the broader health care team, the nursing and midwifery professions clearly understand that the quality of evidence may be judged according to many and varied factors – not least of which is respect for the views and wishes of the patient, client, or family receiving care. It is not possible to dictate the respective worth of evidence for every situation but educators and opinion leaders might commence the building of future educational and clinical frameworks for EBP with an examination of their own and others expectations and assumptions of evidence. This may require some individuals to move beyond their own professional or educational boundaries to examine evidence that is the most appropriate for the practice context (Biswas et al., 2007), rather than that which represents their own personal experience. The landscape against which beginning nurses attempt to understand and gain confidence in the clinical setting is confusing enough, yet the results of this study suggest that opinion leaders in at least one Australian state may be unknowingly hindering engagement with evidence-based care through a lack of collective focus on educational objectives for EBP. In negotiating the complex behavioural and cultural change required for evidence implementation, these findings challenge nursing and midwifery educators to review the assumptions upon which their EBP education is based.

## Conclusion

This study has taken a unique approach to exploring differences among the views of nursing and midwifery opinion leaders on the meaning of evidence for EBP, and found these views to be highly variable. Educational interventions for EBP in nursing and midwifery rarely capture the underlying assumptions of the program and often attribute lack of success to the setting (time and resources) or to the student (lack of skill). However, fundamental differences in the way evidence is understood by nurses and midwives in just one state of Australia leads one to question just how significant these differences may be across the wider clinical, professional and cultural context and what effect this may be having on professional education for EBP.

Nursing and midwifery opinion leaders have the potential to influence the architecture of skill development, education, implementation and the evaluation of evidence-based care. Lack of agreement around a basic educational framework for EBP in under-graduate nursing and midwifery practice in Australia, the adoption of international approaches that are based on individual experience, or programs which themselves may have a poor evidence-base, may be contributing to a less than ideal educational preparation for using evidence as the basis for care.

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