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Evidence based nursing and midwifery practice in a regional Australian healthcare setting: Behaviours, skills and barriers

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Summary
Aim: To establish self-reported skill levels, behaviours and barriers in relation to evidence-based practice (EBP) among a representative sample of regional Australian nurses and midwives in senior roles.
Background: It has been widely established that nurses and midwives continue to face challenges in relation to putting evidence into practice on the clinical floor. Prior to conducting an EBP capacity building activity in a regional Australian Local Health District, a survey assessing needs and skill and barrier areas was conducted.
Methods: A quantitative descriptive survey which utilised the 'Developing Evidence Based Practice Questionnaire' (DEBPQ) was conducted in early 2012 among senior nurses and midwives of a regional New South Wales Local Health District (LHD). The survey results were contrasted with reported DEBPQ results from a sample of UK metropolitan nurses and a sample of Australian general practice nurses (GPNs).
Results: One hundred and sixty nine nurses completed the survey (response rate 42%). Survey respondents' reliance on accepted evidentiary knowledge sources was found to be low. Research literature-related knowledge sources were ranked outside of the top 10 sources, compared with numerous personalised and subjective sources, which ranked within the top 10. Access to and understanding of research material was a primary barrier to reviewing evidence in the study sample. Time-related barriers to changing practice on the basis of evidence figured prominently

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in the study sample and the UK and Australian GPN samples. The study sample rated their EBP skill levels significantly higher than both their UK counterparts and the Australian GPN sample ($P < 0.0001$).

Conclusion: Capacity building interventions are needed among senior nurses and midwives in Australian regional LHDs, as the most prominent knowledge sources reported are non-evidentiary in nature and barriers to finding and reviewing evidence, along with barriers to making practice change, remain significant.

1. Background

Evidence-based practice (EBP) has been defined as a blending of the use of research findings, clinical expertise and patient preference to improve healthcare effectiveness (Haynes, Devereaux, & Guyatt, 2002; Sackett, Rosenberg, Gray, Haynes, & Richardson, 1996). It has been prominent as a movement within healthcare since at least the early 1990s (Sackett et al., 1996). Its focus has been on finding, interpreting and applying rational scientific research to clinical practice. EBP has been shown to be associated with improved patient outcomes (Friese, Lake, Aiken, Silber, & Sochalski, 2008), patient safety (Melnyk, 2012), health service utilisation and clinician job satisfaction (Aiken, Clarke, Sloane, Sochalski, & Silber, 2002). Research has confirmed that EBP-interdependent features of the hospital work environment such as nurse—patient staffing ratios and involvement of the nurse in decision-making are similarly associated with improved patient outcomes, including mortality (Aiken et al., 2012).

The closely related field of knowledge management (KM) has emerged more recently in healthcare, having arisen from North American management theory (Anderson & Wilson, 2009). KM seeks to locate both EBP and continuous quality improvement (CQI) under a wider theoretical frame, which distinguishes explicit (written) and tacit (felt) knowledge and adds process and context as key factors in achieving lasting improvement in the research and evidence utilisation practices of healthcare workers (Anderson & Wilson, 2009). Whatever the organising intellectual frame, it is increasingly understood that EBP (and similar movements, like KM) are context-dependent culturally and organisationally related concerns, as well as clinical practice related concerns (Doane & Varcoe, 2008).

It is generally recognised today that nursing and midwifery practice should be based on sound evidence (Melnyk, Fineout-Overholt, Gallagher-Ford, & Kaplan, 2012). National competency standards for Australian nurses and midwives explicitly refer to EBP as a core component of nursing practice (Nursing and Midwifery Board of Australia (NMBA) 2006a; NMBA, 2006b). Despite this, it is well established that numerous challenges in implementing evidence-based practice are faced and that scoring on EBP related knowledge, practices and attitudes among nurses and midwives has often been shown to be low (Institute of Medicine (IOM), 2008; Koehn & Lehman, 2008). Complex environments are perhaps more prone to challenges and the need for problem solving than simple ones. Given the inherent complexity of today's nursing and midwifery workplace, it may be expected that barriers to the uptake of EBP in nursing and midwifery have been demonstrated. Similarly, the complexity of the knowledge translation domain has also contributed to a lack of clarity regarding theoretical models of EBP, KM or translational science. A recent systematic review of the theoretical literature identified a stable EBP/research utilisation domain which was inclusive of Sackett's definition (Sackett et al., 1996) and which diverged principally around what constitutes evidence and the extent to which patient preference and clinical expertise attained prominence in models (Mitchell, Fisher, Hastings, Silverman, & Wallen, 2010). Further domains located in the review were concerned with: (i) strategic and organisational change theory; (ii) interactional theory around knowledge exchange and synthesis; and (iii) dissemination research (Mitchell et al., 2010).

The literature around limits to EBP in nursing, positions time- and knowledge-based constraints as fundamentally important (Gerrish, 2004; Koehn & Lehman, 2008). In some studies, lack of access to information resources has been shown to be important as a barrier and perceived authority to change practice has also been shown to be important in multiple cross-sectional studies (Brown, Wickline, Ecoff, & Glaser, 2009; Hutchinson & Johnston, 2004). Surveys of the relative importance of sources of knowledge in nursing have yielded a broad picture where experiential knowledge (interactional and within-nurse) is most highly valued, followed by organisational information and then research (Gerrish, 2004). Key facilitators or enablers of EBP have been shown to be related to the availability of resources and learning opportunities and to organisational culture building (Brown et al., 2009). The simplicity of resources has also been shown to be relevant to EBP facilitation (Brown et al., 2009). The breadth of focus of clinical nursing practice ensures that differing needs regarding EBP exist, depending on specialty, practice model and organisational context, to name just a few (Gerrish et al., 2007). Debate continues in the literature with regards how best to broaden the evidence catchment frame for nursing and midwifery, so that all relevant knowledge sources are accessible (Nolan & Bradley, 2008).

Capacity-building interventions around EBP in nursing and midwifery have often focused on research-related knowledge. Senior and advanced practice nurses have often been targeted by these kinds of capacity building efforts, in recognition of their position as influencers of the wider clinical group. Organisational factors and workplace culture have also been identified as central to making EBP-related improvements by capacity builders (Gerrish, 2004; McCormack et al., 2002). Despite the growth of the EBP movement in nursing and midwifery over the last 20