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Contemporary Midwifery Practice: art, science or both?

Abstract

Current midwifery practice is regulated by the Nursing and Midwifery Council (NMC) whose primary role is to safeguard the public through setting standards for education and practice and regulating fitness to practice, conduct and performance through rules and codes (NMC, 2015a; NMC, 2012). Practice is informed by evidence-based guidelines developed and implemented by The National Institute for Health and Clinical Excellence (NICE) based on hierarchies of evidence, with meta-analyses and systematic reviews being identified as the 'gold standard'. This positivist epistemological approach as developed by August Comte (1798-1857) with scientific evidence at the top of a knowledge hierarchy fails to acknowledge the '*art of midwifery*' where a constructivist paradigm of experiential, intuitive and tacit knowledge is used by reflective practitioners to provide high quality care.

As midwifery pre-registration education is now degree level, is the essence of midwifery practice being '*with woman*' providing holistic care under threat as the drive for a systematic and analytical approach to decision-making gathers momentum?

Keywords: evidence-based practice; intuition; revalidation; positivism; constructivism

Introduction

This article will consider the debate as to whether contemporary midwifery care should be based on policies and guidelines underpinned by systematic review (positivism), or based on evidence derived from experiential knowledge and intuition (constructivism). A critical review of current literature in relation to epistemology (the theory of knowledge) in a healthcare setting has discovered a dearth of midwifery specific papers; rather the focus has been on the acquisition of knowledge in a nursing environment. Comparisons can be made between the role of the midwife and advanced nurse practitioner in terms of autonomous practice, advanced critical reasoning and expert decision-making in time critical situations and as a consequence this article will use nursing literature in addition to midwifery specific literature to underpin the discussion where appropriate.

Carper's (1978) taxonomy of knowledge offers four fundamental patterns of knowing in nursing: empirics or the science of nursing where knowledge is gained through the systematic investigation of observation, hunches or ideas; aesthetics or the art of nursing where the expert practitioner uses intuition as a basis of knowledge; ethics or the moral component of nursing dictating what ought to be done in a given situation and personal knowledge where the clinician has a self-awareness and confidence in their practice. Siddiqui (2005) applies this paradigm to midwifery knowledge using the terms theory, practice, research and the midwife's personal belief system; all of which come in to play in clinical practice: underpinning theory and research via taught sessions within the university setting during training, complemented by practice both as a student and then as a registered midwife by building a library of knowledge through experiences in practice. This follows Bloom's Taxonomy (1956) of a hierarchy of levels of thinking from being provided with information to comprehension, application, analysis, and synthesis culminating with evaluation of knowledge in order to apply it appropriately in decision making.

Intuition: fact or fiction?

Intuitive practice has been described as '*artistic and magical/mythical*' (Gobi, 2005:117) and as a result there has been much debate in the literature as to how to define the indefinable and rationalise the irrational. Dreyfus and Dreyfus (1980) define it as the holistic processing of the brain and mind; conversely Gherman *et al.* (2006) take an empiricist view defining it as simple mechanisms based on pattern recognition. There are definitions that encompass both theories with McCutcheon and Pincombe (2001) stating it is neither mystical nor irrational but a product of the interaction of knowledge, expertise and experience and King and Appleton 1997 suggesting it occurs in response to knowledge, is a trigger for action and/or reflection and thus has a direct bearing on analytical processes in care. There is therefore an argument to suggest intuition could be described as a cyclical learning process with on-going reinforcement from expert knowledge, recognition and reflection to inform future practice.

Benner's (2001) intuitive-humanistic decision-making model distinguishes between theoretical knowledge and experiential knowledge in nursing which can be applied to midwifery practice and suggests five levels of proficiency: novice, advanced beginner, competent, proficient and expert. Progression through the phases is dependent on a combination of depth and range of knowledge and the time spent in a particular practice area to achieve expert status and practice intuitively. Such '*understanding without a rationale*' defines practice as an art not a science. Cox (2002) and Leap (2000) talk of '*clinical perception*' or '*knowing without thinking*' where expert practitioners automatically use perceptual observation to notice overt and covert clues from women which they compare with a library of stored knowledge. Differences trigger '*gut feelings*' that there may be a problem warranting more careful examination of evidence and appropriate management. Raynor *et al.* (2005) suggest this is '*professional artistry*' – the involvement of experiences of a more intuitive or reflective nature that are then applied to a different but similar set of circumstances with the aim

of enriching the context within which a decision needs to be made. Information that will link to these sources of knowledge may arise from non-verbal behaviour, specific use of words and what has been described as '*ways of knowing*' including expert memory (the template theory) (Gobet and Chassy, 2008).

This recognition of previous experiences to apply to practice links with the theory of reflective practice as advocated by Schön (1987) who believed practice was fundamental to the acquisition and development of clinical knowledge and expertise. He advocated professional artistry in a constructivist paradigm rather than a theory-based positivist approach. Schön acknowledged the difference between novice and expert by identifying two types of reflection: reflection on action undertaken by the novice retrospectively, and reflection in action by expert practitioners which occurs in real time bringing intuition and previous experience in to play to resolve a problem; with experience, the practitioner will reflect more and more in action as they move from novice to expert.

It is unacceptable for midwives to use the knowledge gained at the point of registration throughout their career without constant re-evaluation and updating and this is why reflective practice and continuing professional development (CPD) or 'Prep' are critical to the provision of high quality care (NMC, 2011). Midwives must be reflective practitioners in order to learn from experiences, mistakes and successes to improve practice (Nakielski, 2005; Gibbs, 1988; Boud *et al*., 1985; Kolb, 1984) and consequently reflection should be acknowledged as a legitimate source of knowledge to influence future practice much like other forms of knowledge such as evidence-based practice (Bulman, 2004). The importance of the relationship between reflection and practice is explicitly acknowledged in the Revalidation process due to be introduced in April 2016 where midwives will be required to record a minimum of five written reflections on the Code, CPD and practice related feedback over the preceding three years (NMC, 2015b).

There is compelling evidence regarding the merits of a positivist approach to midwifery practice where midwives use a wealth of experiential and tacit knowledge reinforced by life-long reflection to provide intuitive care meeting the

needs of the individual. This approach has been established over time as midwives move from the novice reflecting on action to the expert reflecting in action.

Evidence-Based Practice: Doctor knows best?

The constructivist paradigm which began with evidence-based medicine (EBM) or '*the process of systematically reviewing, appraising and using clinical research findings to aid delivery of optimum clinical care to patients'* (Besley,2009:1) should also be explored to appraise its relevance to contemporary midwifery practice. This medical paradigm of '*authoritative knowledge*' (Hunter, 2008) advocates practice based on research, scientific review and evidence-based clinical guidelines (The Royal College of Anaesthetists *et al.*, 2008).

Evidence-based medicine evolved into evidence-based practice (EBP) in a midwifery setting and is seen as a key component for quality midwifery care (Cluett, 2005). Sackett *et al.* define it as '*the conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients'* (1996:71). At first sight this appears to concur with the medical model; however, the difference lies in the definition of '*current best evidence*'.

EBP should be a balance between clinical expertise (art) and best available external evidence (science) in the form of systematic research with the clinician providing care using a balance between the two paradigms. Using either one in isolation does not meet the needs of the individual being cared for: clinical expertise or '*embodied knowledge'* (Hunter, 2008) alone may be out-dated, ritualistic practice and external evidence alone could provide prescriptive, standardised care which does not take into account the needs of the individual (Braude, 2009; Purkis and Bjornsdottir 2006; Thornton, 2006; Tarlier, 2005; Sackett *et al.*, 1996).

EBP revises the medical model by including the woman in the decision-making process along with research findings and expert knowledge as identified in Rycroft-Malone *et al.*'s (2004) definition of knowledge generation which identifies

four different types of evidence: research; clinical experience; patients, clients and carers; local context and environment.

Evidence versus Intuition: can they co-exist?

There is evidence to support both a constructivist and positivist approach to midwifery care dependent on the prevailing circumstances; however neither paradigm appears to meet all requirements to support high quality individualised care: 'best-evidence' may inhibit creative thinking (Hudson *et al.*, 2008), and routine ritualistic practice could be based on informal or anecdotal knowledge which has never been examined to assess its effectiveness. Paley *et al.* (2007) term the opposing paradigms '*on-line'* (constructionist) where care is automatic, intuitive and holistic and '*off-line'* (positivist) as care is deliberate, rule-based and analytical. It could be argued that these fundamental differences between the two paradigms are too great to reach a compromise and as a result clinicians' practice is dictated either by guidelines and protocols or practice entrenched in rituals and routines and as a result the quality of care and service user satisfaction could be compromised.

More recently a flexible and less dogmatic approach to knowledge acquisition and dissemination has been developing (Standing, 2008; Fry, 2007; Thompson and Dowding, 2002) where the emphasis is placed on the use of a continuum paradigm rather than using exclusively either evidence-based practice or intuition. This approach which has much in common with Carper's taxonomy of knowledge (1978), advocates a synthesis of rival and complementary approaches dependent on the situation, with the defining factor being the midwife's clinical judgement (Traynor *et al.*, 2010*)*. This new model is identified by a range of terms in the literature which all acknowledge its complexity and multi-dimensional nature: '*intellectual intuition'* (Levi-Strauss, 1966); '*contextualised knowledge'* (Purkis and Bjornsdottir, 2006), and a *'tripartite of knowledge'* (Thornton, 2006).

Conclusion

This article has explored whether contemporary midwifery care should be based on policies and guidelines or the acquisition and implementation of 'evidence' by other means such as experiential knowledge and intuition. By reviewing relevant literature it is clear that a single epistemological approach is too inflexible and one dimensional. it is important to recognise intuitive knowledge and its influence on clinical decision-making as well as scientific knowledge to ensure midwives are reflecting in and on practice with the benefit of the most up-to-date, reliable and comprehensive evidence.

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