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Exploring cognitive skill development in midwifery education

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ABSTRACT

Changes in maternity services and the role of the midwife mean that the midwife must provide flexible, evidence-based, woman-centred care. As the lead professional, the midwife must use a high level of professional judgement, clinical reasoning and decision-making to enable choice while ensuring the safety and wellbeing of mother and infant. Delayed development of these cognitive skills is suggested by the continuing theory–practice gap, suboptimal practice and students requiring to conform to non-evidence-based practice. The purpose of this research was to explore midwifery students' understanding and experience of the development of cognitive skills. The research employed analysis of undergraduate midwifery programme documentation and a focus group discussion with student midwives from second and third year of the programme. Document analysis and thematic analysis of the interview data indicated a lack of emphasis on cognitive skill development and a sense that these skills improve naturally through exposure to clinical practice. The findings suggest a need to change our approach to learning in clinical practice and to conduct further research to improve understanding of mechanisms to support the development of cognitive skills.

Introduction

Continual changes to maternity care provision and the roles of those working within the service (DoH, 1993, 1999, 2004, 2007; RCOG, 2007; Scottish Government, 2011) mean that healthcare professionals must be able to respond appropriately to new opportunities and challenges (Freeth and Parker, 2003). These changes have also resulted in increased accountability and autonomy for midwives who can no longer rely solely on policies and protocols to determine practice (NMC, 2004). As maternity services become more flexible, woman-centred and responsive to individual needs and choices (DoH, 2007) midwives must be able to use their professional judgement and decision-making to provide holistic care within evidence-based guidelines while including women's choice. This comparatively flexible and adaptable way of working may be a considerable challenge to some practitioners who are more familiar with working according to routine practices and protocols (Bluff and Holloway, 2008). The ever-present theory–practice gap may indicate an inability to adapt practices to include women's choice or reflect current research evidence, and this is further evidenced in variation in students' experiences of clinical learning. Students report receiving conflicting advice, encountering a gap between academic learning and clinical practice (Currie, 1999), and having to adapt to individual mentor's practice (Bluff and Holloway, 2008; Webb and Shakespeare, 2008), which emphasises a persistent 'rigidness' in practice. In the UK context 'mentor' refers to the registered practitioner with responsibility for developing the practice competence of the student. In midwifery, mentors are also required to have 'sign off' status, denoting the skills to assess practice competence (NMC, 2008). There is a substantial published literature on students' experiences of learning in the clinical environment; including adopting a rules-based approach and copying or conforming to the mentor's style of practice (Bluff and Holloway, 2008; Armstrong, 2009). Students find it difficult to challenge observed practice and tend to become socialised to the 'norm', conforming to the mentor's behaviour and adopting routine practice rather than learning to develop and apply their own critical thinking skills (Begley, 2001). However, can students practice autonomously, 'assume full responsibility and accountability for their practice as midwives' (NMC, 2009: 03) and facilitate women's choice without sacrificing professional judgement (CMACE, 2011) if they are not supported to develop their own appraisal and critical thinking?

The development of cognitive skills, such as critical thinking, clinical reasoning and problem solving (Banning, 2008; Kuiper and Pesut, 2004), is important because there is evidence that delayed or poor development may cause newly qualified practitioners to resort to ritualistic behaviour and routines rather than evidence-based or autonomous practice (Kuiper and Pesut, 2004; Kramer

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and Schmalenberg, 2008) reinforcing the gap between research evidence, academic teaching and clinical practice. Furthermore, with a focus on increasing autonomy and quality of care there is recognition that the midwife's learning continues after graduation and must be supported (Midwifery, 2020, 2010: 5). It is therefore essential that undergraduate programmes not only facilitate initial development of these skills but also enable the student to continue to grow personally and professionally (NMC, 2009).

Research question

How does the undergraduate midwifery curriculum support the development of cognitive skills?

Methods

An Action Research approach was taken with the ultimate aim of developing an effective intervention to support cognitive skill development in student midwives. Action research is a practical approach to professional inquiry which aims to improve practice and the understanding of practice (Carr and Kemmis, 1986). Using a continuous spiral of planning, action, evaluation and reflection (Lewin, 1948: 202–203), the researcher works with a problem to develop a solution. The process begins with problems identification, which in this case was evidence of students adopting mentors' practice during clinical placements, having difficulty making clinical decisions and an inability to apply theoretical knowledge to specific clinical situations. The next stage has been identified as reconnaissance or fact finding (Lewin, 1948) where data is collected in order to explore the problem in greater depth. This is then followed by interpretation of the findings before a plan of action is identified. This paper reports on the first stage: an exploration of the teaching and learning of cognitive skills within the undergraduate midwifery programme of one Higher Education Institute (HEI). The aim was to explore whether cognitive skill teaching and learning concurred with the philosophy of the programme and if it could explain the apparent underdevelopment of cognitive skills; thus producing knowledge for action (Cornwall and Jewkes, 1995). Data was gathered from two sources: programme documents and the undergraduate students.

Ethics

Ethical approval for this study was obtained from the University of Stirling Department of Nursing and Midwifery Ethics Committee.

Programme document analysis

Objective

To explore reference to the development of cognitive skills within this undergraduate curriculum; specifically how and when development is supported or assessed (Alaszewski, 2007).

Data collection

A data extraction tool was developed to search for relevant terms within the content of the Dip/BSc Undergraduate Midwifery Programme Validation Document which included the clinical practice profile used by mentors to assess student competence. This provided a framework which the authors used to identify the cognitive aspect referred to, the stage within the programme and the type of element (i.e. theory, clinical teaching, clinical evaluation, Standards of Proficiency, academic assessment and teaching method). Cognitive skill references were further subdivided into explicit and implicit reference. The data extraction tool was developed from a review of the literature and included looking for terms such as clinical reasoning, critical thinking, decision-making, situational awareness, reflection and cognitive. Where implicit reference was noted, space was available to specify details. Data extraction and analysis were conducted by the first author with extraction and analysis of a sample of the document by the second author to assess validity.

Data analysis

Data collected using the tool was tabulated according to the implicit or explicit mention of the key terms listed above. Analysis also included the implicitly or explicitly stated mechanisms employed to support cognitive skill development and the implicit or explicit mention of cognitive skill assessment in any of the academic or clinical assessments. All of these were mapped against the elements and the stages of the programme (i.e. Years 1–3).

Undergraduate student perspective

Recruitment

All 36 student midwives in the second and third year of the UG Midwifery Programme at one HEI were given information about the study and invited to contact the researcher if they were interested in participating. Interested students provided with informed consent and were invited to indicate willingness to take part in a focus group within the HEI setting. Twenty students indicated willingness to participate, ten from each academic year. Five participants from each cohort were then selected at random to attend the focus group. The focus group consisted of females, with ages ranging from 19 to 47 years.

Data collection

A semi-structured interview tool was developed following a review of the literature and the content analysis of the programme documentation. The focus group was conducted and facilitated by the authors. The interview was audio taped and professionally transcribed.

Data analysis

Both authors independently interrogated the data generated by the focus group exploration of the students' experiences of cognitive skill development. Data in this instance comprised both the response and how the students responded; including consideration of the meaning of long pauses. The data was then coded and responses grouped by overarching themes that represented our analysis (Strauss and Corbin, 2008). Both authors then discussed their analysis and achieved broad agreement in their interpretation. Comparison was made between the students' experiences and the programme documents analysis.

Results

Programme document analysis

The philosophy and intent of programme was to produce autonomous practitioners and teaching methods employed intended to promote cognitive skill development. Specifically the Undergraduate programme documentation referred to the use of Enquiry Based Learning (EBL) to encourage the development of critical thinking. Further evidence of a focus on cognitive skill