

The MINT Project

Midwives in Teaching

Evaluation of whether Midwife Teachers bring a unique contribution particularly in the context of outcomes for women and their families

Final Report to the Nursing and Midwifery Council

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Project led by the University of Nottingham in collaboration with the Universities of Kingston/St Georges, Glamorgan, Robert Gordon and Plymouth

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Kingston University

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GLOSSARY OF TERMS

Caseload holding – Care and support provided to women from early in their pregnancy, throughout the antenatal period, during labour and birth and then into the postnatal period until care by the midwife is complete.

Due regard – term used by the NMC to denote the practitioner is in the same field of practice as those being taught/reviewed/assessed.

Interprofessional Learning – learning with, from and about each other to better understand each professional's roles in order to improve team work and care of patients/clients.

Lead Midwife for Education - The senior midwife education manager within the approved education institution and who is accountable to the NMC for all aspects of midwifery education.

Local Supervising Authorities – They are responsible for exercising general supervision over all midwives practising in their area, normally that covered by a health authority, board or inspectorate, to report apparent impaired fitness to practise to the NMC and to suspend from practice as appropriate.

Local Supervising Authority Midwifery Officer – A practising midwife, with experience as a Supervisor of Midwives performs the LSA midwifery officer role in every LSA.

Objective Structured Clinical Examination (OSCE) – This normally involves students and/or practitioners participating in interactive clinical 'stations' using simulation models or people as 'patient/client models' to test their capabilities in dealing with a range of clinical situations. They may do so as individuals or as part of a uni or multi-professional team. They might be used as a teaching rather than a formal assessment strategy and are commonly used for emergency or less frequently encountered situations.

Midwife Teacher - This term denotes a university employed midwife who has gained or is working towards gaining an NMC recordable teaching qualification. Most universities refer to midwife teachers as 'lecturers'.

Mentor – The practitioner responsible for a student’s learning and assessment in clinical practice. In midwifery all midwives who are designated as mentors must have met the NMC standards for ‘sign off’ mentors.

Preceptor – The registered practitioner who has been given formal responsibility to support a newly qualified practitioner for the first few months in post, known as the period of preceptorship.

Problem (enquiry) based learning – Small group student centred learning strategy where the group is provided with a trigger or scenario and they decide what and how they need to investigate and feedback to their group. The teacher acts as the facilitator.

Programme Lead – The teacher responsible for co-ordinating a specific programme and for ensuring adequate resourcing.

Shared Learning – where two or more professions learn together for whatever reason, often teaching common content to a large group without any emphasis on interaction and team working.

Simulation – is used when learning opportunities are not available sufficiently or where it is safer for mothers and babies for students to practise skills with models or in a virtual ‘safe’ environment. This might include students taking each other’s blood pressure, practising drawing up injections and administering to a model. Simulation enables students to spend time learning valuable lessons and achieving psychomotor dexterity. The term is often used interchangeably with ‘skills drills’.

Skills drills – are used to test, improve and maintain knowledge of skills related to situations that are likely to occur in practice. They are seen as very important in the maternity services to improve management of obstetric emergencies. They are used for students in the university setting and also in practice setting when a more realistic ‘simulation’ takes place while staff are at work and all professions on duty determine who does what when.

Stand alongside Midwife-led unit – A birthing facility led by midwives and on the same site as a consultant obstetric unit. Women are able to have minimal intervention and a more relaxed environment, similar to that they would enjoy in their own home. If interventions are necessary the woman is normally transferred to the consultant unit but some facilities provide midwives who are also ventouse practitioners if appropriate.

Stand alone Midwife-led unit – A birthing facility led by midwives but geographically distant from a consultant obstetric unit. Some units also provide antenatal and postnatal services, especially when catering for women who live in very distant localities. They might also have midwife ventouse practitioners available.

Supervisor of Midwives – A midwife who has undertaken the appropriate preparation programme and is appointed to the role by the LSAMO. Each SoMs is responsible for a number of midwives and the role of SoMs is to ensure the safety of mothers and babies. They do this through monitoring the practice of midwives and investigating allegations of impaired fitness to practise. Each midwife is required annually to notify her intention to practise to her named SoMs.

Tripartite meetings – Meetings held between the student, mentor and a midwife teacher to discuss and monitor progress in clinical practice and to ensure agreement as to any action plan perceived to be necessary to reach the required standard of practice.

ABBREVIATIONS AND RESEARCH CODES

AAT	Activity Analysis Tool
AEI	Approved Education Institution
CPD	Continuing Professional Development
CSL	Collaborative site lead
CSR	Collaborative site researcher
ENB	English National Board for Nursing, Midwifery and Health Visiting
FG	Focus group
FGI	Focus Group Interview
HDU	High Dependency Unit
HEFCE	Higher Education Funding Council in England
IV	Intravenous
IVI	Intravenous infusion
LME	Lead Midwife for Education
LSA	Local Supervising Authority
LSAMO	Local Supervising Authority Midwifery Officer
MT	Midwife Teacher
NMC	Nursing and Midwifery Council
NQM	Newly Qualified Midwife
PIN	Personal Identification Number
PL	Programme lead for the pre-registration programme
SIC	Sister in Charge
SSR	Staff Student Ratio

Research Codes

(x and y denote the participant[s] or site randomly allocated unique number or letter)

LMEy	Quote from Lead Midwife for Education interview
MTQ	Midwife teacher response on UK wide questionnaire
MT/FGI/x	Midwife teacher focus group response
NQMIs	Newly qualified midwife interview response (shortened programme)
NQMI3	Newly qualified midwife interview response (three year programme)
PEx	Code for each three year programme newly qualified midwife participant
PEsx	Code for each shortened programme newly qualified midwife participant

Prels	Preceptor interview response related to shortened programme
PreI3	Preceptor interview response related to three year programme
STsQ	Questionnaire response related to shortened programme
ST3Q	Questionnaire response related to three year programme
ST3/FGy	Quote from focus group with three year programme students
STs/FGy	Quote from focus group with shortened programme students

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CHAPTER ONE: INTRODUCTION

1.1 Background

The Nursing and Midwifery Council's prime responsibility is public protection. In relation to midwifery education the NMC has a duty to ensure that only Approved Education Institutions (AEIs) can offer validated pre-registration programmes that demonstrably prepare students who are fit for midwifery practice and can provide the quality of care expected by childbearing women (Health Care Commission [HCC] 2008). The approval and monitoring of education institutions and midwifery programmes are conducted with reference to rules and standards for midwifery practice (NMC 2004, amended 2010) and standards for pre-registration midwifery education (NMC 2009). Institutional approvals and annual monitoring are carried out by a quality assurance agency appointed by the NMC, to ensure that education institutions and pre-registration programmes produce newly qualified midwives who are fit to practise. It is important to note that pre-registration midwifery education programmes are based on a partnership between an AEI and local midwifery care providers (NHS Trusts, Health Boards or equivalent) who offer placement learning. At least one half of the midwifery programme is based in placement learning environments.

The NMC relies on a range of methods to ensure that approval and monitoring processes are reliable and valid. These include quality assurance reports from the appointed quality assurance agency and NMC reviewers and by responding to lessons emerging from the Local Supervising Authority (LSA) annual reports (NMC 2010). However, it is not surprising that serious untoward incidents reported in maternity units have raised questions about whether midwifery education is preparing students for competent midwifery practice. For example, the extraordinary visit by the NMC to Northwick Park Hospital Maternity Unit following the imposition of 'special measures' (HCC 2006) raised concerns about the robustness of approval and monitoring processes. Related concerns were described in an LSA Annual Report in 2007/8 that detailed shortcomings about the clinical learning environments. Despite the concerns expressed in these reports about the practice capabilities of newly qualified midwives, it is often difficult to establish whether these were due to failures in pre-registration programmes, delay in obtaining employment, inadequacies in preceptorship once appointed or unrealistic expectations and deployment of a novice midwife. There is some evidence in the HCC reports on individual National Health Service (NHS) Trusts in England as to the environments that enhance the experience of pregnant women. These are also most likely to be conducive for students to learn about effective midwifery practice.

The NMC education standards (NMC 2009) for the approval of education institutions to offer pre-registration midwifery programmes require there to be evidence that the education institution has the appropriate organisation, resources, and policies to deliver a midwifery curriculum that will ensure public protection and women's satisfaction with midwifery care. Since at least one half of the midwifery programme is based in placement learning, it is essential that an AEI can support placement based learning. The NMC education standards are explicit in setting out an expectation that a Lead Midwife for Education (LME) and midwife teachers are credible in their knowledge of the theory and practice of midwifery. Midwife teachers need to understand placement learning environments, ensure students are adequately supported in these learning environments, and to be up to date in midwifery practice and policy. Although there is no specification for how these expectations are met (e.g. Standard 11, NMC 2009), it is recognised that midwife teachers should have the necessary credibility to deliver programmes that will equip students for independent practice, as specified in the International Definition of the Midwife and the European Union Articles 40 and 42 of Directive 2005/36/EU (NMC 2009); inspire students to become the future practitioners and leaders as described in the Midwifery 2020 report (Midwifery 2020 UK Programme); and respond to concerns from mentors and/or Supervisors of Midwives about potentially 'failing' students who are not meeting the criteria for professional registration.

Given the complexity of the role of midwife teachers and their centrality in delivering a midwifery programme that meets NMC standards, there has been considerable interest in specifying the midwifery resources that must be available for the approval and re-approval of an AEI's pre-registration midwifery programmes. A former regulatory board in England (English National Board for Nursing, Midwifery and Health Visiting, ENB) required a commitment to a 1:10 midwife teacher to student midwife ratio before programmes could be approved. Opinion was divided as to whether this staff student ratio (SSR) should be retained as a standard for all UK providers of pre-registration midwifery programmes. Although there was a strong lobby amongst LMEs to retain the 1:10 SSR as a benchmark for midwifery teaching resource there was little evidence to support the selection of a 1:10 ratio.

A further complication arises from the current drive to expand and improve inter-professional learning. It is recognised that facilitating health and social care professionals to learn together is an important pre-requisite for team work and efficient delivery of care. However, an increase in interprofessional learning has an impact on the availability and maintenance of 'profession specific' (due regard) expertise within an AEI to support the delivery of the curriculum and support students in placement learning.

Teachers who have 'due regard' have always been considered essential in ensuring students can transfer generic learning to specific practice contexts, and therefore it has a direct impact on student learning, achievement and hence the quality of midwifery care. The current project was therefore commissioned to provide the NMC with research based evidence on the level of midwife teacher resource that should be required when approving, re-approving or monitoring AEs offering pre-registration midwifery programmes. An earlier scoping study of midwife teacher and student ratios commissioned by the NMC Midwifery Committee (Maben et al 2007) concluded that: SSRs 'should not be lightly put aside'; but that defining and calculating SSRs are problematic. In addition they suggested that any measure of the midwife teacher resource required to deliver a midwifery programme should be regarded as a 'benchmark in the context of a wider set of process and output variables' and that the benchmark of midwife teacher input should be demonstrably related to 'quality education provision'. They stated that considerable work is required if a method for determining a benchmark is established.

The current project had three specific tasks. Firstly establishing the models that are most effective in producing students who have the competence and confidence expected of new qualifiers. Secondly to establish which roles and responsibilities of midwife teachers have most impact on student learning and capability as midwives and provide best support to mentors in their teaching and assessment decisions. Thirdly, to identify the quality indicators that will be most useful for the NMC's quality assurance teams when approving and re-approving pre-registration programmes of midwifery education as well as for the annual monitoring process.

From 2008 the NMC has required all pre-registration midwifery programmes to be designed to meet degree level requirements as a minimum. This is the first major change since diploma programmes and three year programmes became the norm in the early 1990s. This project includes both degree and the outgoing higher education diploma level programmes. In addition data encompassing the recent recommendation for student 'caseload holding' has been included.

1.2 Aims and Objectives

The overall aim of the project is to evaluate whether midwife teachers bring a unique contribution particularly in the context of outcomes for women and their families. The following are the specific objectives the NMC required the research team to address.

1. Identify the various models for delivery of pre-registration midwifery education in the UK.
2. Gather information about the specific contributions made by midwife teachers
3. Evaluate whether these variables affect the quality of care that qualified midwives can provide to mothers and their babies
4. Determine the value brought by midwife teachers regardless of the model of education provision
5. Develop quality indicators to demonstrate the value brought by midwife teachers.

1.3 Project Team: organisation and roles

The project team comprised a 'hub and spoke' model with the University of Nottingham as the 'HUB', co-ordinating activities and assuming overall project management and accountability. The HUB team included the two project leads, the project co-ordinating researcher, the quantitative data lead researcher, two research associates known as collaborative site researchers (CSRs), the website manager and the project administrator. The four partner collaborating universities (spokes) are located in three of the UK countries: England - University of Kingston/St Georges and University of Plymouth; Scotland - Robert Gordon University; and Wales - University of Glamorgan. Each partner university appointed a collaborative site lead (CSL) and a collaborative site researcher (CSR). In addition a representative of the Local Supervising Authority Midwifery Officers was co-opted as a member of the team to provide intelligence about standards of care for mothers and babies and to participate in data collection and report writing as appropriate.

The CSLs were responsible for ensuring the CSRs carried out data collection, analysis and report writing as specified in the project timelines and provided assistance as and when required. All members of the team met for four project workshops to agree ethical guidelines and ensure a common approach to data collection and analysis. These workshops also provided opportunities for discussion of emerging findings and agreement as to the structure and content of the final report.

1.3.1 Advisory/Steering Group

Four meetings were held with an Advisory/Steering Group at key points in the project. The membership of the Advisory/Steering Group is identified on page iv. The purpose of the Advisory/Steering Group was to ensure that the project team delivered the project objectives, kept to the agreed timescale, and offered advice and guidance in developing the research tools and interpreting the results. The final meeting of the

Advisory/Steering Group was designed to enable detailed discussion of the draft final report, including the five Annex reports.

CHAPTER TWO: METHODOLOGY

2.1 Project design to achieve objectives

Evaluating whether midwife teachers bring a unique contribution to the outcomes of pre-registration midwifery education programmes is a complex process and warranted a sophisticated blend of quantitative and qualitative approaches. This involved a UK-wide survey of Lead Midwives for Education and midwife teachers and detailed case study research at six centres across all four countries providing three year and shortened pre-registration midwifery programmes. To ensure all objectives could be achieved, the project was designed in three phases:

Phase One: UK wide identification of models of delivery of pre-registration midwifery and the roles and activities of midwife teachers (Objectives 1,2,4,5)

This required a UK wide survey to obtain data on the variety of models currently used to deliver pre-registration midwifery programmes, especially the balance and range of practice experiences, and to establish the variety of roles and responsibilities that midwife teachers have in each responding institution in delivering these programmes. In particular respondents were asked to identify in what ways they are carrying out the specific expectations of the NMC and whether there are any barriers to them fulfilling these expectations.

Phase Two: Evaluation of the impact of midwife teachers on the educational experiences of student midwives and on their practice (Objectives 2,4,5).

Phase Two involved an illuminative case study approach on the six sites purposively selected to represent all four countries and a variety of geographical locations and attendant socio-cultural differences, including the characteristics of the women and families who use maternity services. A circular process was adopted by the field work researchers so that researchers did not collect data from their own area of the UK.

Phase Three: Exploration of the competence of newly qualified midwives and the means by which midwife teachers might have had an impact on that practice (Objectives 3,4,5).

This phase of the study was primarily concerned with evaluating how well newly qualified midwives achieve what is expected of them and the factors that might most have influenced their ability to deliver midwifery care that met the needs of women and their families. This was achieved by asking a sample of newly qualified midwives to keep

diaries recording significant experiences and through questionnaires to their preceptors and questionnaires to their SoMs. The diaries, interviews and questionnaires were designed to elicit views on whether newly qualified midwives were able to practise safely and effectively, drawing on others for advice or assistance when encountering situations not previously experienced (Fraser et al 1998, Fraser 1998, Midwifery 2020 UK Programme 2010). The team were keen to ensure a differentiation between competence and confidence. An understanding of the confidence of newly qualified health professionals is particularly important, it was reported in the study commissioned and funded by NHS Education for Scotland (Lauder et al 2008) that 'care should be taken not to confuse an apparent lack of confidence in some newly qualified practitioners with a lack of competence, where this is, in fact, self-awareness of accountability' (p.197).

2.1.1 Sample selection and rationale

Survey work was conducted on the populations identified as key stakeholder groups for this study. This involved:

- a) an on-line survey of all UK Lead Midwives for Education;
- b) an on-line survey of all midwife teachers in the UK who gave consent to be e-mailed the web link to the on-line questionnaire;
- c) a survey of LSAMOs for evidence from their audits of maternity services as to the satisfaction of students, any comments recorded from women as to the quality of care provided by student midwives and the reasons for referral for supervised/developmental practice of midwives (if any) in their first year of practice. In addition the LSAMOs were asked to provide numbers of midwife teachers who have a Supervisor of Midwives (SoMs) caseload and how having teachers as SoMs impacts on outcomes.

In-depth case study work took place in six university sites and the maternity units associated with them. The selection was made to ensure representation of all four countries, a mix of different geographical locations for students' practice placements and where a range of other health professions are also educated. A decision was taken that the project would draw upon the wealth of literature already available reporting on mothers' satisfaction and expectations of the maternity services rather than collect data directly from women and their families.

Field work in each case study site commenced in the six months prior to the date when the next cohort of students was due to complete. This included both three year and shortened programme students. All students in the final six months of their programme

at each of the case study sites were approached to take part in the study, all students who consented to take part were included. Data collection during field work included:

- a) review of each site's pre-registration curriculum
- b) individual interviews with the LME and Programme Director/Lead for Pre-registration Midwifery
- c) self-reporting activity analysis tool (AAT) to midwife teachers
- d) focus group interviews with midwife teachers to further explore the UK-wide survey questionnaire responses and validate responses to AAT
- e) questionnaires, followed up with focus groups with a purposive sample of student midwives in their final six months of the programme
- f) pre-designed diaries for a purposive sample of consenting students to complete during their first six months of practice as a newly qualified midwife (NQM)
- g) questionnaires for the participating NQM's preceptors and Supervisors of Midwives
- h) joint interviews with a sample of NQM and their preceptors from each country.

2.1.2 Ethical issues

The study involved university staff and students and NHS midwives, hence both university and NHS research ethics approval were necessary as the intention of the study was to generate new evidence as well as auditing current practice. In addition there was also a need to obtain NHS governance approval from each of the provider maternity services where those consenting to participate in Phase Three of the study would most likely be employed. This required approval from 19 different Research and Development (R & D) Offices. It was a particularly lengthy and time consuming process in which each R & D office required slightly different documentation even though data collection in the NHS would only involve questionnaires, diaries and interviews from a small number of midwives in each provider service. The study did not raise major ethical concerns, although the researchers had a responsibility to ensure that none of the newly qualified midwives would become distressed by recounting their significant events and measures were put in places to offer support if required. All participants in the interview, focus group and diary research tools gave their individual consent, they were informed that they had the right to withdraw from the project at any time, and they were offered an opportunity to access personal information they had provided. During analysis all data were made anonymous by the removal of individual information and the allocation of subject and study site codes. All data were stored secured in an anonymous form in password protected computers. An assurance was given to all participants that reports would not identify individuals without their permission.

2.2 Methods of data collection

2.2.1 Survey tools

Questions were developed from previous research, data from satisfaction surveys of midwifery care, the NMC Standards for pre-registration programmes (NMC 2009), the organisation and proportion of time students spend in practice placements, and the NMC standards to support learning and assessment in practice (NMC 2008b). The survey questionnaires for this element of the study were an adaptation of one used in previous studies (Mallik 1993, Day et al 1998).

Lead Midwives for Education

For the UK wide survey of LMEs, the questionnaire design incorporated five themes with a mixture of open and closed questions (see Appendix 1 in Annex 5.2). These included:

- demographic material on location, size and resources of the midwifery education provision
- elements of models in use for delivery of the pre-registration curriculum
- information on implementing the practice curriculum
- opinion questions on the impact of midwife teachers on the quality of care provided to mothers and babies through their influence on student midwife outcomes
- strategic and operational role of the LME.

The design was subject to multiple revisions following commentary from the members of the research team, members of the project advisory group and the NMC Head of Midwifery. Piloting was completed by five LME members of the research team.

Midwife Teachers

The UK wide survey of midwife teachers also incorporated a mixture of open and closed questions (see Appendix 1 in Annex 5.3). The questionnaire survey was used to obtain responses to the following questions as well as providing space for free text comments:

- number of years practising as a midwife teacher
- number of university sites where the teacher delivers the theoretical content
- percentage of time spent teaching specific subjects (to include preparation and assessment)
- number of hospital maternity units in partnership with their university
- impact of a range of their roles on students' practice performance
- activities undertaken by the teacher in the practice placements
- deterrents to fulfilling their practice learning support role
- midwife teachers' impact on competence of newly qualified midwives
- midwife teachers' greatest impact on care of mothers, babies and their families.

2.2.2 Interview schedules

Results of the UK wide survey of all respondent groups (LMEs, MTs and LSAMOs) were presented and discussed by the collaborative research team and areas that needed more in-depth exploration were highlighted for inclusion in the case study interview schedules.

Lead Midwives for Education

The interview schedule for the LMEs was developed following the analysis of Phase One survey data. The interview schedule (see Appendix 3 in Annex 5.2) included the following themes:

- personal demography of midwifery experience
- resourcing the curriculum
- influences on the curriculum
- midwifery teaching staff development issues
- policy and position of midwifery education within the universities
- expectations and preceptorship needs of newly qualified midwives (NQMs).

Midwife Teachers

Similarly the results from the survey of midwife teachers helped to inform the midwife teachers semi-structured interview schedule (see Appendix 2 in Annex 5.3). In addition a summary of key issues identified from the questionnaire data was provided for each focus group participant to read prior to the discussion (see Appendix 3 in Annex 5.3). The teachers in the case study sites were also provided with an activity analysis tool (AAT) to complete electronically which was an adaptation of that in use at one of the universities which was itself a modified version of the HEFCE transparency survey (Appendix 4 in Annex 5.3).

Programme Leads

The interview schedule for programme leads was developed by members of the collaborative research team through workshop activities (see Appendix 2 in Annex 5.2).

Themes explored included:

- personal demography of midwifery experience
- description and opinion on current pre-registration curriculum
- issues related to supporting the practice curriculum
- opinions on the impact of midwife teachers on outcomes for midwifery students
- their expectations of newly qualified midwives.

Student Midwives

Prior to conducting focus group interviews with senior student midwives, they were asked to complete a questionnaire. A draft questionnaire was piloted with students by a student midwife member of the Advisory/Steering Group. This was used to obtain responses to the following questions as well as providing space for free text comment:

- pre-registration midwifery programme enrolled in (i.e. three year, shortened, degree, diploma)
- ways of participating in a university programme
- estimation of classroom input by midwife teachers on specific subject areas
- estimation on percentage of practice learning time by location
- practice learning experiences when on placement
- usual time span spent in each midwifery practice placement
- areas of support in practice learning provided by midwife teachers
- areas that midwife teachers provide university based input enabling achievement of NMC proficiencies (proficiencies was term used for these case study students but has now been replaced [NMC 2009] by competencies).

The semi-structured interview schedule covered the following topics for discussion:

- preparation for first post as a newly qualified midwife
- what had the greatest impact on competence in becoming a midwife
- the role midwife teachers have in students acquiring midwifery knowledge that gives them the confidence to case manage women
- practice placements
- reflection opportunities
- what was of most value about the midwifery programme
- desirable changes to the course.

2.2.3 Diary outline and data from Preceptors and Supervisors of Midwives

The diaries were intended to enable the newly qualified midwives to record their reflections on, but not exclusively, the following (see Appendix 1 in Annex 5.5 for layout of the diaries):

- how well they felt prepared for their first post and what was it about their pre-registration programme that had most impact on them as midwives
- how much their midwife teachers had made, or not made, a difference to them providing quality midwifery care
- whether they felt they were competent when caring for women with straightforward childbirth experiences
- whether they felt there had been important gaps in their programme

- any positive or negative comments from women about the care they provided
- perceived effectiveness of preceptorship
- the support given when caring for women with more complex needs.

The joint interviews and questionnaires to the preceptors and to the SoMs were designed to elicit responses to the following views of competence at registration (Fraser 1998 p.172):

- being knowledgeable
- communicating effectively
- seeking advice appropriately
- knowing their limitations
- demonstrating competence but are not over-confident
- taking responsibility
- decision making skills
- diagnosing abnormalities
- having the personal qualities that can adapt to women's individual needs
- working in a team
- being safe, or predicting they would be in an emergency.

2.3 Data Collection

2.3.1 Phase One: Survey Samples

Lead Midwives for Education

The online survey tool was sent to all 55 Lead Midwives for Education (LMEs) in the UK. E-mail reminders were circulated to non-responders at set intervals to improve response rates. A small number of respondents had difficulties in completing the 'on-line' version of the questionnaire. Other methods of completion were offered in order to increase the response rate. There were 51 responses, of which 7 were incomplete, giving an overall response rate of 93%. There were responses from all four UK countries.

Midwife Teachers

Each LME was asked to request permission for contact details from their teaching staff members to enable the researchers to send midwife teachers a questionnaire to complete electronically. The total population of midwife teachers in the UK is not known but from a total of 456 email contact details that we obtained, a total of 228 (50%) midwife teachers returned questionnaires, six of which were incomplete. There were only two Approved Education Institutions where no response was obtained. All four countries were included in the fully completed responses as shown below:

- England : 186 (84% of total respondents) representing 53% of available contacts in England
- Scotland : 20 (9 % of total respondents) representing 71% of available contacts in Scotland
- Wales : 8 (4% of total respondents) representing 30% of available contacts in Wales
- Northern Ireland : 8 (4% or total respondents) representing 80% of available contacts in NI

Local Supervising Authority Midwifery Officers

All 16 LSAMOs in the UK were asked to complete an on-line questionnaire. A response was obtained from all four countries with only two LSAMOs failing to respond to the initial survey. During the course of the project all LSAMOs were asked to provide further data about supervisory incidents that had been reported to them that had involved newly qualified midwives in their first year of practice for the three year period until April 2010. In combining these two stages of data collection, all 16 LSAMOs provided data for the project. Their responses are not reported separately but have been integrated as appropriate into section 3.2.4 of this main report and in Annex 5.5 section 3.3.2.

2.3.2 Phase Two: Case Study Sample

Programme Management

All LMEs and the six programme leads (PLs) from the case study sites participated in either face to face or telephone interviews. All six LMEs were experienced midwives who had been in midwifery education between 22 – 32 years. Two LMEs had been appointed to their post relatively recently (0.5 months and one year respectively) and four had fulfilled the role (or its equivalent) for between five and nineteen years (mean 12.5 years). For the PLs (two of whom are also the LME) the range of years in midwifery education was 7- 31 years with a mean of 19 years.

Midwife Teachers

In the six case study sites, a total of 37 midwife teachers consented to participate in the focus group interviews. Seven interviews took place in the case study sites with the number of participants in each focus group ranging from two to ten. Demographic details of the participants are presented in Table 1, which shows that the participants were mainly experienced midwives, the majority of whom had been in education for 10 years or more. At least one was also a Supervisor of Midwives, and most had a wide range and variety of teaching responsibilities.

Table 1 –Demographic Data

Years as a midwife before teaching (range)	4 – 26
Years as a midwife before teaching (mean)	12.9
Years as a midwife teacher (range)	0.6 – 28
Years as a midwife teacher (mean)	10.7
Number who are Supervisors of Midwives	8 (21.6%)

Although 45 midwife teachers had agreed to complete the activity analysis task, only 29 (64%) submitted the completed AAT which provided a total of 87 weeks of midwife teacher activity to analyse. The number of completed activity analysis tools for each case study site varied between four and seven.

Student Midwives

All three year and shortened programme students in the last six months of their programme were asked to complete a questionnaire (see Appendix 1 in Annex 5.4). The students were also asked to participate in a focus group discussion with one of the collaborative site researchers (CSRs) who had no connection with that case study site (see interview schedule in Appendix 2 in Annex 5.4). The researchers set out to ask student midwives about the value and contribution of midwife teachers to their education and training experiences, and to determine whether these variables affected the quality of care that qualified midwives provide to mothers and babies.

A total of 111 students who were completing the three year programme, responded to the questionnaire, three returns were incomplete. A total of 54 students on the shortened programme returned completed questionnaires. All shortened programme students were registered on a degree programme, whereas two thirds (74) of the three-year programme students were registered on a degree programme with the remainder (34) registered for the diploma route. Almost all the students from all groups were female.

A total of 120 students participated in a total of 17 focus group interviews (FGIs). Each FGI lasted for between 45 minutes to one hour and was conducted by one or two collaborative site researchers (CSR). The interviews were audio recorded and then transcribed verbatim by the researcher. Transcripts were cross-checked by another member of the research team to ensure accuracy of the transcription process, and were submitted to the project co-ordinating research team to organise the process of analysis.

2.3.3 Phase Three: Prospective Diary Study Sample

Diaries

A total of 73 student midwives who agreed to take part in Phase Two also consented to participate in Phase Three of the study (54 from the three year programme and 19 from the shortened programme). The aim was for participants to complete a weekly entry for the first three months as a registered midwife and then every two weeks for the second three months, making a total of 18 potential entries. The shortened programme students did not complete their programme until a year into the project and hence were only able to complete up to three months of weekly entries once in post, as was a second cohort of three year programme students.

Students initially chose one of three methods for completing their diary entries: using a hard paper copy, via an USB stick or via WebCT. During the course of the project some of the participants found it less time consuming to provide their diary entries orally via telephone contact with a member of the research team. The diary transcripts collected via the oral route were sent back to the participant for validation. The collaborative site researchers were given responsibility for maintaining contact with the students that had given them their consent to participate in the diary phase of the project. Monthly contact was made by each CSR with their respective newly qualified midwives using e-mail, text and/or verbal messages and phone calls. This acted as a reminder for the participants to keep their diary entries up to date. A small number of participants never responded to these prompts but the majority did respond in some way, even if it was to opt out of the study. One of the reasons for those who had consented to participate failing to maintain contact with the research team or choosing to opt out of the study was the time lapse of three to four months between consent to participate and commencing employment as a midwife. Other reasons for opting out of the diary phase of the study included one or other of the following:

- family illness or crisis
- adjustment to new role more stressful than anticipated
- demands on their time within and outside their first post as a NQM left no time for diary completion
- extra demands of undertaking further academic work for a 'top-up' degree.

A small number (six) of those who had originally given their consent to participate could not be included because they had not obtained employment in time or were working in a maternity provider for which the team had not gained R & D approval. Given that it had taken up to five months for some R & D departments to give approval for the project to

take place, it would have been too late to seek R & D approval once the newly qualified midwives had commenced employment.

Through a process of regular contact and encouragement a total of 35 newly qualified midwives completed diary information; 28 were graduates of the three year programme and seven of the shortened programme. Further details can be found in Annex 5.5.

Preceptors and Supervisors of Midwives

The 35 newly qualified midwives who provided diary entries were employed in 16 different NHS provider services which covered 18 maternity units. Although all participants were asked for details of their preceptor and supervisor of midwives only 14 SoMs and 13 preceptor details were provided. Reasons for this shortfall included: NQM opting out of this stage; no preceptor or SoM allocated; refusal of the SoM or preceptor for their contact details to be given to the research team. At the close of data collection seven SoMs and nine preceptors had returned questionnaires and seven preceptors participated in joint interviews with their NQM preceptee.

2.4 Data Analysis

A summary of the response rates for all respondents can be seen in Table 2. A web based tool was used for the collection and analysis of the questionnaire data (Survey monkey: <http://www.survey.monkey.com/>). Results were saved to excel files and descriptive statistics were used to present the results. Data from interviews, focus groups, diaries and open questionnaires were analysed using a basic thematic approach. Scripts were read and reviewed to identify key terms, phrases or concepts that could provide insight into the research objectives. Two researchers were involved at each stage of this process to allow for cross checking and validation of the themes built up from these key terms to answer the research questions.

There are inevitably complexities involved in analysing data generated using multimethod case study designs. This complexity comes from the variety of methods and sources of evidence. Yin (2009) argues that the ultimate aim with case study research is to ensure that all forms of evidence are treated fairly and that compelling analytic conclusions are produced. The team believe that they have demonstrated rigour in analysis and details of the way in which both qualitative and quantitative data have been analysed are provided in the relevant Annex reports.

Table 2: Response Rate for all Respondents for all Project Phases

PHASE	DATA SOURCE	METHOD	RESPONSE RATE
Phase 1 – UK Survey	Lead Midwives for Education (n=55)	Questionnaire (on line)	93% (n= 51)
	Midwife Teachers (n=456)	Questionnaire (on line)	50% (n=228)
	LSAMOs (n=16)	Questionnaire (on line)	88% (n=14)
Phase 2 - Case Studies	Lead Midwives for Education (n=6)	Interviews (telephone)	100% (n=6)
	Programme Leads (n=6)	Interviews (face to face)	100% (n=6)
	Midwife Teachers (n=45)	Activity Analysis	64% (n=29)
		Focus Group Interviews	54% (n= 37)
	Senior Students - Three year (n=138)	Questionnaire	80% (n=111)
		Focus Group Interviews	68% (n=94)
	Senior Students – Shortened (n=71)	Questionnaire	76% (n=54)
	Focus Group Interviews	32% (n=23)	
Phase 3 - Diary Study	Newly qualified midwives - Three year (n=54)	Semi-structured diary	52% (n=28)
	Newly qualified midwives – Shortened (n=19)	Semi-structured diary	37% (n=7)

CHAPTER THREE: RESULTS AND DISCUSSION

The study's main findings are presented under headings that reflect the overarching project aims: to identify the models of midwifery programme delivery; to provide information about the specific contributions of midwife teachers; and to evaluate how these affect the quality of care received by mothers and babies.

This section synthesises the key information presented in the Annexes (Section 5). Each Annex is intended to be read as a stand alone report providing evidence from a particular perspective on the study objectives. A brief commentary on relevant literature is presented in Annex 5.1. The evidence from programme managers (LMEs and PLs) is presented in Annex 5.2. The perspectives of midwife teachers are presented in Annex 5.3. The views of senior students are given in Annex 5.4. Evidence from newly qualified midwives and their preceptors and supervisors is provided in Annex 5.5. In selecting issues for further discussion in this chapter, particular attention has been given to areas of agreement or disagreement between participants.

Sections 3.1 and 3.2 describe variations in curriculum models and methods of delivery (Project Objective 1) and how the role of the midwife teacher is interpreted and applied (Project Objective 2). Section 3.3 includes the experiences of newly qualified midwives and the perceptions of their preceptors and Supervisors of Midwives on their ability to deliver quality care to mothers and their babies (Project Objectives 3 and 4).

3.1 Models of Delivery of Pre-registration Midwifery Education

In this section, aspects of curriculum design and institutional organisation that were regarded as having the most impact on the quality of learning are discussed. This includes aspects of curriculum design and organisation that were viewed both positively and negatively, and reference is made throughout the discussion to the relevant Annex where the synthesis of the data from the study participants can be found.

Participants differentiated between aspects of design and delivery that were university based and those that were practice based. Overall there was limited scope for variation across Approved Education Institutions (AEIs) in the content of programmes because of the need for students to achieve the EU requirements and the NMC standards (NMC 2004 for the students in this study, now NMC 2009). However there were considerable although often subtle variations in emphasis in content, timing and the ways in which teachers chose to deliver the curriculum (Annex 5.2). All programme managers reported user involvement in course development, management and the selection of student

midwives. Most AEs used a progressive curriculum focusing on 'normality' in midwifery at the start of the programme moving on to increasing complex types of care as the course progresses. However students noted that this pattern does not represent the realities of what they experience in practice, even on their very first day of practice placement.

Evidence from the UK surveys and case study sites indicates that there is considerable innovation in midwifery education. This section examines the following issues as they were the models where there were most variability or considered of most importance to student learning: interprofessional and shared learning; problem based learning; OSCEs and clinical skills; caseload holding; range and arrangement of practice placements; and e-learning.

3.1.1 Interprofessional Learning and Shared Learning

Interprofessional learning (IPL) was cited by LMEs as an example of positive innovation in midwifery education (Annexe 5.2). Interprofessional learning was said to be included in their programmes by over 90% of LMEs (Annex 5.2 Figure 2) and it was valued by many students (Annex 5.4). However, there were clear differences in the ways in which IPL was provided (see glossary for IPL and shared learning definitions). Working alongside students from other professions was valued by students, particularly those undertaking the shortened programme. On the other hand, there appeared to be little perceived benefit in simply sharing lectures with students from other disciplines. Much of this shared teaching took place early on in the programme which meant that students felt ill prepared for an understanding of the specific role that they expected to play in practice placements. Shortened programme students also viewed some of the shared learning as repetitive of work covered in their nurse education programme and they resented this waste of time in what they saw as a very pressurised course (Annex 5.4 section 3.1.2). Where shared learning was later on in the programme and for subjects where there were common needs for the same level of content, then students were less critical.

Midwife teachers reported that when more interactive IPL sessions were part of the curriculum this did not reduce their teaching load as it was important to enable students to apply the material directly to midwifery practice (Annexe 5.3) and hence they needed to be involved. Small group teaching as required for effective IPL was resource intensive and could be said to increase the workload of the midwife teacher. The need to focus on application to midwifery was also supported by students (Annexe 5.4).

It is apparent that sharing lectures does not fit the definition of interprofessional learning suggested by Hammick et al (2007) which is based on methods that involve students learning about, with and from each other. A review by those authors demonstrated that satisfaction with IPL was high where the latter did occur, a view that is confirmed by participants in this study. Therefore, it is advised that IPL should be structured to ensure the interaction between students is integral to any educational session. This was confirmed by the response of students who already had a health background who valued IPL and recognised the richness of the learning experience. Study participants, especially programme managers, drew attention to the point that effective IPL does not lend itself to cost efficiency since it depends upon small group interaction.

3.1.2 Problem Based Learning

Programme managers saw problem based learning (PBL) or enquiry based learning (EBL) as another example of innovative educational practice (Annexe 5.2). This tended to be used less in shortened programmes than in three year programmes but was still a feature of over 75% of pre-registration programmes (Annexe 5.4). Students appreciated the experience of working in smaller groups noting that the activities and tasks stimulated effective learning (Annex 5.4). However, some negative views from students concerned the facilitators' lack of skills, the large size and composition of some groups and lack of coverage of topics. Although students and teachers could see that learning skills were enhanced in EBL or PBL, they expressed concern at what they viewed as a disproportionate amount of time on some topics to the detriment of others. Midwife teachers were vocal about the need to integrate various aspects of midwifery theory with midwifery practice and they felt this could be achieved through models such as PBL (Annexe 5.3).

In her study of midwifery students, Tully (2010) found that students enjoyed the learning experience in EBL and, more importantly, they felt it equipped them to become seekers of information relevant for their future practice, it also stimulated them to question the evidence for midwifery care. However, Rowan et al (2008) reported that while midwifery students responded positively to the use of PBL, they did not consistently believe that the technique prepared them for clinical practice. In both studies (Rowan et al, 2008; Tully, 2010), the level of input and enthusiasm of other group members in the task was a key factor in students' perceptions of success of this type of learning initiative and management of this aspect requires effective facilitation by the midwife teacher. Once again, the programme managers recognised that effective use of PBL or EBL required resource intensive small group teaching and investment in teachers' facilitation skills.

3.1.3 Objective Structured Clinical Examination (OSCE) and developing clinical skills

The use of Objective Structured Clinical Examinations (OSCEs) was viewed extremely positively as an effective means of enhancing the practical and clinical skills of students, including when used for formative assessment or skills development sessions with other professionals (Annex 5.4). Students described learning clinical skills through simulation in a skills laboratory as an essential part of their preparation for practice. Students on shortened programmes wanted more focus on midwifery skills, believing that they had already acquired many care skills during their nursing career (Annex 5.4). However, the evidence from the Annexes indicates that it cannot be assumed that students start learning clinical skills with the same experience and confidence, especially in undertaking basic skills that might appear to be common to both midwifery and nursing practice. Although simulated sessions were generally thought to be helpful, one group of students drew attention to the importance of the entire group having the opportunity to practise and become confident in acquiring a particular skill (Annex 5.4 p.14). It is clear that for these teaching methods to be fully effective, all students must have the chance to practise, as well as view the technique.

Midwife teachers spoke of their involvement in skills sessions as a routine part of delivering the programme, although they noted that it was resource intensive (Annex 5.3 section 3.3.2). There was a clear difference of opinion amongst midwife teachers regarding who was best placed to teach clinical skills. A few midwife teachers thought that clinical skills were best taught by mentors and other staff in the placement areas, especially when the midwife teacher had difficulty staying updated through engagement in practice (Annex 5.3). Other midwife teachers disagreed, believing that teachers who had extensive experience as practitioners before becoming teachers retained the ability to teach the skills, whatever the extent of their current engagement in practice. The newly qualified midwives frequently reflected back to the value of skills teaching in the university by midwife teachers but for some they found it had been inadequate (Annex 5.5 p.39).

'We weren't taught many practical skills...it was just left to the mentors who were not always the best ones to get the best information and advice. They are not always the most up to date, this is where teachers in practice would be really helpful...' (PE36)

The study findings are consistent with other authors who stress the value of learning skills in the university in a safe, controlled environment in which students can become adept at the practical activities they will need to master to provide safe care for women

(Gordon & Buckley, 2009). It is recognised that an OSCE can help prepare students for practice, although the element of artificiality has to be reduced as far as possible (Jay, 2007; Rennie & Main, 2006). The evidence indicates that there is scope to utilise the principles of the OSCE to promote interprofessional and interactive learning. Symonds et al (2003) evaluation of student midwives and medical students' experience of formative interprofessional OSCEs showed that there were benefits for both groups of students in terms of knowledge acquisition, preparation for clinical practice and that understanding of each other's roles was enhanced which fostered team working. In an integrative review of literature on objective structured clinical *evaluation* Walsh et al (2009) also found that evaluating clinical competence through the use of an objective structured clinical evaluation was complex although had clear benefits. All participants in this study placed a high value on the use of OSCEs and skills teaching, although the demands on midwife teachers' time to ensure that all students have the chance to observe, practice and be assessed on their acquisition of clinical skills in a safe, controlled environment were acknowledged.

3.1.4 Caseload Holding

Caseload holding, or case loading as described by some students, is giving a woman continuity of care throughout the childbirth continuum (Annex 5.4). A similar definition is used by the NMC (2009) which refers to this as caseload holding. Although there are differences between institutions in the way it is organised, most (69.8%) included case loading as an integral part of the student's learning experience (Annexe 5.2), and an equivalent proportion of students (70%) reported that they had managed a case load. Students found the idea rather daunting at first but found that taking responsibility for a mother's pregnancy and birth experience was an excellent way of building their practical experience and professional confidence, it also helped to bridge a theory-practice gap. However, students felt that to obtain maximum benefit for the experience of case loading it needed effective facilitation by their teachers with good preparation and formal feedback (Annexe 5.4).

It was noted, however, that there were differences in the interpretation of what constituted 'case loading'. The focus group discussions demonstrated that some participants used the term to describe students taking responsibility for organising care for a small group of women during the final year of the programme. The caseload they were given was generally small as it was likely to be part of their midwife mentor's caseload each day. Students found this to be a valuable experience in learning how to balance different priorities for care.

Evidence on the benefits of case loading on continuity of care throughout the childbearing continuum is just beginning to emerge (Rawnsone et al 2008; Rawnsone et al 2009). The approach is clearly thought to be of benefit by students, programme managers and midwife teachers in this study. It is an aspect of curriculum delivery that also depends upon close student support by midwife teachers, as well as effective skills in small group facilitation and feedback. As there is some uncertainty around how case loading is organised across institutions this may be an area for further exploration to establish benchmarks for case loading.

3.1.5 Range of Practice Placements

Students particularly appreciated early practice placements which were of sufficient length to enable them to develop familiarity with the clinical area, develop competences and gain confidence in performing skills (Annex 5.4 Figure 3). Students also believed that the university based parts of the curriculum should be closely linked with the types of experiences they were encountering in practice. For example, some students argued for the biological sciences content to be directly related to skills they needed to be able to respond to women with complex care needs as they progressed through the curriculum (Annex 5.4 p.13). They recognised that opportunities for caring for women with complex needs did depend upon the availability of associated placement areas.

It was apparent that AEs vary as to the range and variety of maternity units that they partner with for student placements. Not all AEs had access to a full range of large maternity referral centres with specialist services and neonatal intensive care units, smaller rural hospitals, medium sized district hospital or stand alone or stand alongside midwife led units (Annex 5.4). In the case study sites, some students noted that they had had placements in a wide range of maternity service, although others reported that they had spent all of their programme in the same maternity unit. All students found having a range of placements in more than one maternity unit valuable in preparing them for their first post, especially if they were likely to seek employment in a different locality (Annex 5.4 p.20). The value of having clinical experience in a range of maternity units was confirmed by newly qualified midwives (Annex 5.5). Students who felt they missed out by having all their experiences in one maternity unit would try to use elective placements to gain a wider range of experience. Although there were variations in, as well as confusion between, students experience of a midwife led unit as either 'stand alone' or 'stand alongside' (see Tables 3a and 3b in Annex 5.4), there was unanimity that a clinical placement in a midwife led unit was an extremely valuable experience. (Annex 5.2). The students who had gained experience in midwife-led units found it '*... was probably the most valuable...*' (ST3/FGS,) (Annex 5.4 p.19).

It is evident that students place great value on obtaining a mixture of practice experiences although distance, limited access to practice learning providers and the personal commitments of students can reduce these opportunities. One method for overcoming limited opportunities for variety in practice learning experiences encourages students to share their different experiences of practice through facilitated reflection sessions for the benefit of the whole student cohort. The NMC standards (2009) clearly state the importance of supporting women birthing in a variety of settings. The study confirms the value of case loading, experience in midwife led units and a variety of maternity units in helping students to develop confidence and competence in supporting normal childbirth as well as decision making in complex situations.

3.1.6 E-Learning

E learning techniques were widely used in midwifery education (Annex 5.4), they were particularly valued when they enabled students to access learning resources when away from the university campus. Teachers recognised the benefits of using learning technologies, but noted the difficulty in making time to develop high quality e-learning resources, particularly when they were in a small team (Annex 5.3). One aspect of learning technology that was highly criticised by students was an over use of PowerPoint presentations, especially when it was used to structure a session rather than as a teaching tool. Students did find it helpful when presentations were posted onto a virtual learning environment. (Annex 5.4). The evidence also highlighted the importance of e-learning resources being up to date, relevant and accurate, thus placing a responsibility on midwife teachers to be selective and knowledgeable about the material in use in the curriculum. The need for midwife teachers to *'develop the skills and expertise to work with new and advancing technologies'* to provide wider access for students was also highlighted in the Midwifery 2020 report (Midwifery 2020 UK Programme, 2010 page 19).

3.1.7 Conclusion

All students felt that the curriculum design, teaching and learning strategies and timetabling had an impact on their competence and confidence as student midwives. In particular they valued early practice, long placement allocations and a variety of maternity unit experiences, especially midwife led, a good balance of subjects of relevance to midwifery with an emphasis on those with most practice application, practice simulation and OSCEs in a safe environment, and caseload holding experience where they were able to give continuity of care throughout the childbearing continuum. Experiences of interprofessional learning were valued if they worked with other

professions in an OSCE or practical environment and in clinical practice, but were critical of shared learning in lectures. Students during the course and when newly qualified believed that their curriculum had addressed the importance of normality in childbirth, but there were some concerns about the timing and adequacy of curriculum content related to biological sciences and complications and complexity in midwifery.

As well as the models used in the design of the curriculum, of even more importance for student learning was how well their teachers delivered the curriculum and this forms the next section of this report.

3.2 Contribution of Midwife Teachers to the Pre-registration Curriculum

In the UK wide survey, LMEs were asked to identify the number (head count) of midwife teachers who contribute to their pre-registration programmes (Annex 5.2). It is surprising that nearly 60% of the 44 AEIs who responded had 10 midwife teachers or less and four had less than 5 midwife teachers. Respondents did however say they draw upon other midwives on a secondment or sessional basis. From the evidence it is possible to identify three aspects of the midwife teacher's role that were important for students' learning, support and assessment. Although Supervisor of Midwives was not identified by all participants, the role was recognised as an important contribution to the midwifery education team. Although different titles were used by students and by teachers, the activities undertaken by midwife teachers have been clustered under the headings below:

- University Lecturer
- Personal Tutor
- Practice Link Lecturer
- Supervisor of Midwives.

It is worth noting that there were different models for how these core aspects of the midwife teacher role were reflected in individual workload or distributed between a team, often depending upon the size of the team.

3.2.1 University Lecturer

The specific contributions made by midwife teachers in their role as university lecturers, excludes their roles as link lecturers (see section 3.2.3) and personal tutors (see section 3.2.2). Evidence is drawn from programme managers (Annexe 5.2), midwife teachers (Annexe 5.3), students (Annexe 5.4) and newly qualified midwives and their preceptors (Annex 5.5). Their role as university lecturer is grouped into four areas: teaching activities; credibility; administration and quality assurance; and research and

scholarship. As with most attempts to group complex activities, there are overlaps and inter-relationships between the groups.

Teaching activities

Midwife teachers in their role as university lecturer undertake a wide variety of activities partly because of the complex demands of midwifery education and partly because universities employ proportionately small teams of midwife teachers due to the relatively small numbers of students. The evidence from Annex 5.3 indicates that there is considerable variation between AEs in the range and weighting of activities that are undertaken by midwife teachers. However, the majority of midwife teachers completing the activity analysis tool spend over 50% of their time in direct educational activity fulfilling the demands of the university based curriculum (Figure 8 in Annex 5.3). There was consensus amongst midwife teachers about the nature and content of these teaching activities, they included:

- teaching theory from all subjects applied to midwifery practice
- teaching relevant to producing students fit for registration
- being inspirational role models
- demonstrating the ideal way to practise
- teaching skills for safe practice in particular: communication, decision making, emergency drills, simulation of key practice skills
- developing and empowering students

(Annex 5.3 page 45)

As well as providing teaching input, midwife teachers were also recognised as leading the design and organisation of the midwifery programme curriculum.

In addition to pre-registration education, the majority of teachers were involved in post-registration education as well. Where there were very small numbers of midwife teachers they needed to be capable of teaching across a wide range of modules and provide cover for absences of other teachers.

'...compared to maybe some other schools of midwifery, our learning beyond registration is huge...huge amounts of multi-topic work...and again supporting practitioners at your own site with studies with questions you get asked...even if it's not your specialised topic...and it takes you twice as long to answer the question than if they'd gone to the appropriate person...but you want to be giving and supportive and help them as they go along...' (MT/FGI/22) (Annex 5.3 p.28)

Small group teaching, such as that required for interprofessional learning (IPL) problem based learning (PBL), Objective Structured Clinical Examinations (OSCEs) and other skills teaching sessions were all found by teachers to be resource intensive.

'...when it is IPL, the teachers and facilitators, it isn't always an equal spread for all those professions...we tend to do a lot of turning up and an awful lot of resourcing...and if midwife teachers weren't as willing...the IPL wouldn't always take place...' *'...there's an element of us wanting to support our students in that...'* (MT/FGI/22) (Annex 5.3 p.28)

'...there's normal skills teaching and there's obstetric emergencies skills teaching...to pre and post reg students...' (MT/FGI/42) (Annex 5.3 p.28)

However, both newly qualified midwives and their preceptors made a point of stressing the value of the input that midwife teachers make to learning and practising skills within the simulated clinical environment. Students also emphasised the value of midwife teachers in making the most of opportunities to learn and practise skills in a simulated clinical environment. Some thought that increased midwife teacher input to practice simulation sessions and Objective Structured Clinical Examinations (OSCEs) were directly related to their being competent to practise.

'I think the OSCEs are really good for preparing you for the complications and I think that the lessons that we had and the practice that we had was really good. And then the actual OSCE itself, I think - even though it was really scary and none of us really wanted to do it, I think it was the best way to prepare.' (STs/FGF) (Annex 5.4 p.14)

'I feel I would benefit more from practical experience in the university setting on handling obstetric emergencies. I have read that some universities simulate sessions when students are in their theory block and I feel that myself & other students would benefit greatly from this. Maybe designed as OSCEs as recently described in the RCM magazine'. (STsQ) (Annex 5.4 p.14)

The midwife teachers' role in demonstrating and explaining the skills went beyond simply facilitating opportunities for all students to practise the skills, but also involved putting the practice of these skills in an interprofessional context. This could however limit opportunities for all students to gain 'hands on' practise.

'We did a shoulder dystocia – you do this, you do that...only one girl actually got to do the manoeuvre out of the whole class'. (STs/FGH) (Annex 5.4 p.14)

Even when students were taught in large groups with students of other professions, midwife teachers were involved in leading some of these sessions as well as applying subject content to midwifery practice in subsequent small group discussions. Although teachers felt this multi-professional shared teaching was *'...usually an attempt to save money...'* (MT/FGI/42), they said it rarely reduced midwife teachers' workload. However, in contrast, the LMEs thought it could be resource neutral if midwife teachers also drew upon other professions to teach student midwives specific subjects. (Annex 5.2 page 20)

Universities varied in whether they prescribed the amount of student contact expected of each teacher or whether the team of teachers had autonomy to plan their workloads as individuals or as a team. If teachers were responsible for a large number of modules then this increased the amount of time they needed to spend in preparing sessions, delivering classes and assessing students. The increase in e-learning and innovative learning technologies was also a challenge for small teams of teachers to develop their teaching and facilitation skills in new areas.

'...I think we're proactive as a bunch of teachers...and that brings pressures...we're always changing, always reflecting, we're always thinking about what we're doing and can we do something different and better...that takes energy and that's about trying to deliver a better service for our students who will then hopefully deliver a better service for women and will get a better calibre of midwife...' (MT/FGI/22) (Annex 5.3 p.31)

An in-depth subject knowledge base was also key in enabling them to mark students' work competently and provide constructive feedback. The teaching role was expressed by most as the most important priority for them.

'...I think our job is educator, educator in an academic establishment. First and foremost we are educators...the main focus of our job as a midwife teacher is education...' (MT/FGI/42) (Annex 5.3 p.31)

The midwife teachers believed that they kept up to date sufficiently to deliver the pre-registration midwifery programmes. However, most midwife teachers recognised that keeping up to date could be a struggle, they described having to work in their own time. The importance of reading and critiquing literature, research, policies, guidelines and reports to inform their teaching was the normal expectation of a university academic.

'...by reading the literature, that's the important thing, so that we can educate properly and be credible educators. We are overall educators...' (MT/FGI/52) (Annex 5.3 p.35)

One of the key problems for many of the midwife teacher teams was the small size of their team and the lack of critical mass to cover for absences or release many staff for continuing professional development (CPD) activities.

'we have smaller teams. When there's sickness, pregnancy, whatever, people go away and therefore everyone is covering everybody else's caseloads. In a larger team that would be absorbed more. In a smaller team the impact is great...so the stuff like scholarly activity, um, going out and doing practice...gets robbed...' (MT/FGI/52) (Annex 5.3 pp 39-40)

Student midwives found that their curriculum was most effective when midwife teachers taught most of it, or at least spent time applying generic subjects to midwifery practice.

'Our midwife teachers have delivered nearly all of our curriculum which has been good as it has been appropriate and relevant to practice.' (ST3Q) (Annex 5.4 p.21)

'And also I think it's been really good that we've learned, as a midwifery group as opposed to being lumped on, I know in other courses in other places that they've been part of a nursing sector to do the biology, and things like that and I think that we've really benefitted by being taught as a midwifery group, and with a midwifery purpose because even if some of the biology has been generic, it's always been tied back to midwifery and how it can be related to practice. And I think that for us, that's really benefitted.' (ST3/FGZ) (Annex 5.4 p.21)

Midwife teachers were in agreement that they needed to teach the majority of the curriculum and use their experience to judge when to invite in others such as anaesthetists, obstetricians, paediatricians, public health specialists and midwives with specific expertise to contribute. Students also valued the contributions from outside experts when it was the midwife teacher who brought in those of most relevance.

'... we didn't actually have a lot of input from the midwifery lecturer who was leading the module, but looking back on it, she organized all these outside speakers to come to us, and everyone was really worried about the assignment, but actually what we learned from it, from all the outside speakers was really good. Really good stuff.' (STs/FGG) (Annex 5.4 p.22)

Students talked about the need for their teachers to help them reflect on their practice experiences. This not only enabled them to learn from each other but also provided the knowledge they needed but had not learned from their mentor.

'...they give us the knowledge behind reflection and how to reflect and then we're encouraged to reflect by our mentors but...without the midwife teacher input we probably wouldn't have the knowledge...' (ST3/FGO) (Annex 5.4 p.36)

The following student's response highlighted the overall and unique value of midwife teacher's input to the curriculum:

'The midwife teachers who have provided our university based lectures particularly - biology, managing major obstetric emergencies, professional, legal and ethical issues and evidence based research have been extremely knowledgeable and I do not feel this information would have been as successfully gained from non-midwifery professionals or from mentors in practice.' (ST3Q) (Annex 5.4 pp25-26)

The pressure to deliver the majority of the midwifery curriculum can lead to a tension between maintaining sufficient expertise to contribute generally to the midwifery curriculum, as required by NMC Standards (2009), and the need to develop specialist expertise, a tension that could be exacerbated in smaller midwifery teams (Annex 5.3 p. 27)

Credibility

Midwife teachers were divided as to whether it was necessary to be involved in 'hands on' midwifery practise to keep up to date. They also discussed the roles they had in the

university and, particularly for midwife teachers who did not teach modules with a practice element, they considered that keeping up to date could be enabled by their knowledge of research and subject content rather than providing 'hands on' care.

'...it makes a difference which modules and which aspects of University work you are allocated to lead...I would say that none of the modules for which I have input are clinically based...' ...I need to be doing research because I'm supervising Masters students...' (MT/FGI/52) (Annex 5.3 p.33)

The teachers who were committed to doing clinical practice shifts to keep up to date were generally given the opportunity to do so within the working day but if this was not possible then a small number worked as 'bank midwives'.

'...going into the clinical setting to work with students, that would keep me up to date and we do that with our personal students...' (MT/FGI/02) (Annex 5.3 p. 34)

Newly qualified midwives and preceptors said that students would have benefitted from midwife teachers having a greater 'presence' in the practice areas (Annex 5.5 pp.59-60), in order to understand the realities of working in the NHS, and to support mentors. Evidence from the students was unequivocal that midwife teachers who had contemporary experience of the 'real world' of midwifery practice made the most impact on their learning. They appreciated the need to learn the ideal way to practise midwifery but believed it should be set in the context of working in today's NHS.

'The 'ideal' that is taught in this course seems so far detached from the reality of practice and this is completely inappropriate.' (STQ) (Annex 5.4 p 24)

Thus the contribution of midwife teachers in linking theory to practice and applying it to the 'real world' is of vital importance to the students' developing competence and confidence. Many students were able to make discriminating judgements as to whether their lecturers had contemporary clinical knowledge and experience or whether they had been 'out of practice' for some time. (Annex 5.4 page 24).

'You could pick...lecturers that have come in and encouraged you to, and actually made you learn something...the rest have this ideal practice that you must learn, but it's totally detached from...what's real'. (ST3/FGM) (Annex 5.4 p.24)

Those teachers who were active researchers said that involvement in clinical trials and qualitative studies enabled them to understand contemporary practice issues and to observe what was going on in the practice environments.

'...if your research is a clinical trial...it keeps you up to date because you're seeing patients, you're seeing women all the time and you're doing midwifery skills on those women...' (MT/FGI/12) (Annex 5.3 p.35)

It was apparent that not all midwife teaching teams placed the same value on working in practice, some midwife teachers said they found it difficult if their peers failed to see the benefits of a team member doing a clinical shift. Priorities within midwifery teaching

teams often encouraged midwife teachers to 'drop practice' first when there was teaching to cover or a meeting to attend, this made it difficult for teachers to keep to planned practice days and maintain practice credibility.

'...it depends on the value you put on it...I have a practice day so if it is seen as a moveable feast...that would probably be the first thing to go...' '...uh yes ...the demands of the curriculum and teacher sickness etc. it is the first thing to go...'
'...as teachers we probably don't all support each other to go into practice either...it's if there's a meeting required or a teaching session you can't very...you have to be very confident to say 'this is my clinical day and I can't give that day up'. The response you sometimes get is 'well teaching comes first' – so you have to give up your clinical day. You give it up one week...the next week and ...you've missed six months...and then you have... you're... your confidence again...'(MT/FGI/22) (Annex 5.3 p.40)

'...we don't get time allocated (for practice)...if there's modules that need teaching...programme delivery is the higher priority...' (MT/FGI/52) (Annex 5.3 p.40)

Overall it is the midwife teachers' knowledge of midwifery subjects, practice and application that is the most highly valued aspect of their role in the curriculum (Annex 5.4 p.25). The idea of credibility was grounded in midwife teachers being able to keep up to date with the real life experiences that students would encounter in clinical practice, it was enhanced by their visibility and presence in midwifery care settings.

Although not a role requirement for midwife teachers, many AEs do appear to recognise the value of having at least one member of the team who is also a Supervisor of Midwives, although for some this work is undertaken in their own time (see section 3.2.4). The communication networks and range of supervisory experiences afforded them were shared with the rest of the team and that was thought to enhance their credibility with students and midwives (Annexe 5.3 page 50). A final observation is that this raises an interesting possibility that credibility, while an individual characteristic, can also be shared amongst a team.

Administration and Quality Assurance

It was apparent that a lack of secretarial and administrative support meant that midwife teachers did much of the administration for programmes themselves. The amount of support received from centralised services was variable, especially when some of the programme requirements were peculiar to health service programmes and did not fit into overarching university systems.

'..timetable planning, we do an awful lot of timetable planning...' *'...we would not want to give all those things up, but we would need additional people...'* *'...Yah, there's a large admin role that we all do, there's no two ways about it...'*
(MT/FGI/22) (Annex 5.3 p.31)

Those who were responsible for substantial aspects of the midwifery programme usually had larger administrative loads than the rest of the teaching team. The paradox that midwife teachers noted was that a small team having to meet a range of administrative responsibilities without specialist administrators resulted in even slower functioning. Lack of administrative or secretarial support were also cited as factors that prevented teachers from undertaking the practice role as much as they would like and also preventing them from developing innovative teaching techniques.

'...we're finding there's less and less and less admin support...so you are taking on more and more admin yourself...' (MT/FGI/42) (Annex 5.3 p.41)

Small teams of teachers still had to meet quality assurance requirements. In addition, midwifery programmes required detailed records of student progress and achievement that were usually in excess of other university programmes. Fitness to practise procedures although rare were time consuming but essential to ensure that students who were not suitable for entry to the profession could be discontinued from the programme. The LMEs in particular stated that ensuring students are fit to practise is an important part of their role (Annex 5.2 Figure 8). Although time consuming to organise and evaluate, teachers felt quality assurance mechanisms were important.

'...we have quality assurance mechanisms, we evaluate modules, we evaluate clinical placements, we evaluate the end of year programme, we have teacher observation, we organise meetings where clinicians come and share information...etc ' (MT/FGI/42) (Annex 5.3 p.33)

Midwife teacher were also required to participate in a range of meetings. Those who attended these meetings then fed back to their peers. Although it was recognised that participation in meetings was an important aspect of credibility and visibility in a small team, representation at meetings could cause administrative pressures.

'...we have lots of discussion between the team about what's going on...we have meetings with the heads of midwifery...we have clinical representation on our major key meetings...' (MT/FGI/32) (Annex 5.3 p.35)

Research and Scholarship

A disturbing finding from the evidence is that almost half of the midwife teachers completing the activity analysis tools (Figure 2 , Annex 5.3) report that they spent no time at all on research or scholarship and a quarter said they had not spent any time on development in education. There are a few examples where a midwife teacher was able to spend a considerable proportion of their time on research or education development, but these examples were rare. However, it is possible that midwife teachers have different roles within a team and accordingly they prioritise different activities according to their role within the team.

It would appear that contribution to the development of a robust evidence base for midwifery practice through research is not a priority for most midwife teachers. It was apparent that they experience difficulty in fulfilling the expectations of their role against a background of increasing student numbers, decreasing midwife teacher numbers and cost containment by AEs. The demands of the pre-registration programmes and increasing number of post-registration courses prevented many of them from undertaking research and spending sufficient time on developing subject and pedagogical scholarship. Those teachers whose contracts had a research focus said they were under pressure to meet university requirements to be returned in the Research Excellence Framework. If teachers intended seeking promotion they needed to have published their work and to have a national reputation in the field.

*'...part of what the university expects...is to actually research into our areas...'
'...it's a broad thing that you have to achieve...so the team supports others within that team to gain expertise in areas to make the team stronger but that means that the individual's profile might not be broad enough to actually go for promotion...'(MT/FGI/52) (Annex 5.3 p.13)*

As well as a lack of time to attend conferences or study days to update their knowledge and ability to network, funding for such events was often lacking.

*'...more funding for things like going to conferences and study days,...I mean, I don't even bother applying now because the amount of funding is so reduced...'
(MT/FGI/12) (Annex 5.3 p.42)*

The opportunity for teachers to be supported to undertake doctoral studies varied between case study sites.

'...we have had a number of people who have gone through and got their PhDs or are getting them...as a team we do probably most things reasonable OK in terms of developing people doing things like that...'(MT/FGI/32) (Annex 5.3 p.13)

In universities where the team felt there were sufficient teachers, individual teachers were able to develop specialist expertise but in others, comments were made that they had no time to demonstrate scholarly activity unless they used their own time:

'...if we are expected to produce scholarly activity that we don't have to (shouldn't have to) do it on our own time...'(MT/FGI/02) (Annex 5.3 p.13)

Some universities have different titles for those midwife teachers who are predominantly 'teachers' and those who have a research and teaching focus. Although this distinction could help clarify priorities, teachers believed that neglecting research and scholarship was likely to affect future promotion opportunities and their credibility as university lecturers. Many teachers, especially those in smaller teams, reported that it was difficult to release staff to pursue doctoral studies or to undertake research unless part of a funded project. Even when research was undertaken as part of a funded project it could

be difficult to employ part time teachers to take on the workload of those teachers on sabbatical leave or seconded to a research team. Those in larger teams were much more able to release staff and cover their responsibilities.

'..if there's funding for the research and there's funds to buy someone's time to cover your time...the reality is that you tend to weave it into your workload and ask your colleagues to support you...' (MT/FGI/42) (Annex 5.3 p.14)

Discussion

Evidence indicates that a midwife teacher brings a unique contribution to the preparation of midwives through their specialist knowledge and application of the subject to practice. Their contribution in teaching skills in the simulated clinical environment, ensuring the relevance and application to midwifery of IPL and other shared learning experiences, and especially their facilitation skills in leading reflection on practice were highly valued. The study also identified challenges, tensions and pressures for midwife teacher teams which are to a degree interlinked: namely the size of the midwife teacher teams; the availability of time and commitment for teachers to remain clinically updated and the teacher's contribution to midwifery research and scholarly work.

This study suggests that where there are smaller midwifery teams the midwife teachers are stretched as they have a substantial teaching workload across the breadth of the curriculum. This, coupled with ever increasing administrative duties means that time for clinical updating, continuing professional development and engagement in research and scholarly activity may be compromised. Ensuring a critical mass of midwife teachers to deliver the curriculum and support practice learning is seen as essential in ensuring that newly qualified midwives have the competence and capability to provide women-centred care across a range of settings (Midwifery 2020 UK Programme, 2010). Whilst interprofessional learning and other small group learning, especially skills teaching and reflection on practice were valued by students, the commitment from teachers to facilitate them has been found to be considerable (Furber et al 2005, Fraser et al 2000), adding extra pressure if the team is small.

The importance of clinical credibility has been discussed since the integration of nursing and midwifery education into higher education in the 1990s. At the time midwife teachers expressed concerns around changes to their educational and clinical role following integration (Hindley 1997, Barton 1998, Hughes 1999). However, all the midwife teachers felt that they kept up to date enough to deliver the pre-registration curriculum although it was sometimes a struggle. What is apparent is the variety of ways that midwife teachers use to keep up to date, not necessarily including direct clinical exposure. Some midwife teachers considered that their research and scholarly

work enabled them to have contemporary knowledge of the subject. Students valued this type of credibility but they appeared to set greater store by 'clinical credibility', describing the importance of midwife teachers having direct experience of the 'realities' of practice. The midwife teachers with credibility made a greater impact on students' learning (Green & Baird 2007).

The idea of individual clinical credibility includes having strong strategic alliances and partnerships with practice areas (Ousey 2010). Strengthening the link lecturer role was viewed as a means to enable greater 'reality based teaching' (Day et al 1998), as well as enhancing support in the clinical learning environment. This will be covered further in section 3.2.3.

The limited contribution to midwifery research and scholarship by midwife teachers who contribute to the pre-registration curriculum may be understandable in the light of the size of many midwifery teams. However, a vehicle to improving the care of mothers and babies may be through undertaking educational research (Fraser 2000), and a further debate is required to ensure that the full scholarship potential of the team of midwife teachers in each AEI is realised.

3.2.2 Personal Tutor Role

Most universities allocate a personal tutor for each student, their responsibility is to provide personal and academic support including pastoral care. This section draws upon evidence relevant to this aspect of the midwife teacher's role. The evidence for this section is primarily taken from the Annex reports from the educationalists (5.2 and 5.3) and from the students (Annex 5.4) plus relevant references from newly qualified midwives and their preceptors (Annex 5.5). In collating this information there appear to be three main themes that emerge; organisation of the role, educators' views and students' views.

Organisation of the role

Two main models exist for the allocation of personal students to midwife teachers. In some AEIs teachers take their personal students from one intake cohort. Other institutions allocate students from different intake cohorts according to their link practice areas or a mixture of both using a hybrid model (see Annex 5.2 section 3.2.1). The hybrid model is described as follows by one of the case study site's LME.

'a clinical area link so they maintain the clinical area link as a social come professional contact as well as then they have their personal student link which may be in any of the clinical areas we link with as well' (LMED) (Annex 5.2 p.29)

In some AEs a personal tutor will follow their students into a practice area, visiting or working with students and participating in practice assessment processes (Annex 5.2 p.28). It was clear that the operation of the personal tutor system was influenced by other factors, particularly the effectiveness of practice link lecturer tutor arrangements.

Evidence from participants confirmed that effective individual student support was key in enabling students to complete their programme successfully. However, it was obvious that each of the models for combining a personal tutor role with supporting practice learning and assessment had drawbacks. In those situations where a teacher's personal students were on the same site as the teacher's link area, it was easy and effective to liaise with the student's mentor if there were difficulties and to monitor the tripartite process. On the other hand, when a midwife teacher's personal students were distributed across a large geographical area it could be time consuming to visit students in practice or they could rely on a link lecturer (or practice/clinical educator) to follow up concerns and liaise with the mentors on that site. There was a preference for personal students all being on the teacher's practice link site, but the organisation of programmes and the geographical spread of practice sites made this impractical for many AEs. It would also limit the learning opportunities available to students.

Educators' views of the personal tutor role

The evidence from the programme managers identified a range of methods for allocating teaching workload, including methods which specified that teachers were expected to carry out an annual total of between 550 and 750 hours of teaching activity (Annex 5.2 p.18). However, methods for determining the number of personal students for each teacher was less clear. Most programme managers recognised the diverse roles that midwife teachers performed, and they mentioned the need for equity and fairness across a range of workload streams such as number of personal students, modules per midwife teachers to include timing and allocation of assessment load and administration.

'We notionally try to ensure the workload is equal and the role that most people find quite onerous is being the intake leader because that requires a lot of admin, ... They would ideally like to have only one intake to be responsible for at a time' (LMEA) (Annex 5.2 p.18)

Given that midwife teacher teams were generally small, individual teacher workloads were described as complex. Adding to the complexity were issues arising from the personal, academic and social challenges that a diverse group of students face and find challenging, particularly the unpredictable and emotional nature of midwifery practice. In reviewing the role of personal tutor, midwife teachers discussed the fact that an increasing amount of time was spent on student support. Although universities generally

had good central support services they found that their personal students came to them for additional support, especially when it related to issues in practice. They were finding that they needed to give considerable pastoral support to students who had complex personal needs both within the programme and in their personal lives (Annex 5.3 p.24). In addition, personal tutors in some institutions were expected to take on responsibility for monitoring the requirements of the practice based curriculum, including allocation and adjustment of practice placements, monitoring achievement of hours spent in practice and maintaining records of meetings with students in their portfolio (or equivalent documentation). There were variations, some of these responsibilities were undertaken by the LME or programme lead or centrally in the university.

If the university used a tripartite system for assessments in practice, and over half of institutions used tripartite assessment at least twice per progression point (Annex 5.2 Table 3), it was not clear whether it was the student's personal tutor or practice link lecturer who would participate in these tripartite assessments. Whichever method was used there would need to be good communication between the link lecturer and the personal tutor.

Student views of personal tutors

All groups of students identified the importance of personal tutors for their learning and continuation on the programme. The focus group evidence provided some comparisons of the ways in which they had the most impact. The quality of support was illustrated by a shortened programme student:

'I think the other thing, being a student midwife from being a student nurse is really different, it's nothing like...you're just sort of a pain when you're a student nurse and you just have to fit in and it's up to you...I found it quite hard. It's alright cause you're young and all your mates are with you, but here I think being a student midwife, you're a lot better supported and you're more part of the team I think than you were when you were a [student] nurse.' (STs/FGH) (Annex 5.4 p.27)

Students would have liked more contact and communication with their personal tutor during clinical practice. Although students recognised the constraints on personal tutor time, students expressed a desire for personal tutors to closely monitor their progress and occasionally work with them clinically. In general they wished midwife teachers were more visible in practice, even when their practice areas were geographically some distance from the university main sites. Students also valued the tripartite system, while some students said they preferred to see their personal tutor rather than a link lecturer for tripartite meetings or assessments, it seemed to depend on individual midwife teachers more than allocation models.

'I think it helped because we have tripartite meetings, where your personal tutor will come to the ward – usually, ideally at the end of your placement, with your mentor and the three of you get to have a chance to sit down and talk about – reflect on placements and talk about whether you've met your own aims and objectives and it allows each person to discuss how they feel things are going and how we're progressing...if there's anything we feel we want to achieve we can try and work out how we're going to do that. So that's good and you feel supported as well' (ST3/FGO) (Annex 5.4 p. 29)

One particular contribution, noted by some students, is for the personal tutor to support mentors in 'letting go', one newly qualified midwife noted that some students had been held back by mentors who would not 'let go'.

'...I mean A (mentor) was quite good letting me do it, but a lot of other mentors don't necessarily allow you to do it...' (NQMI3/PE45) (Annex 5.5 p.56)

As would be expected, some students were anxious about working as a qualified midwife but most could recognise that midwife teachers and in particular their personal tutors had prepared them well and they were ready for their role as a midwife, provided the level of support is maintained following qualification into the preceptorship period:

'I think we are prepared for it though as long as we're not thrown in at the deep end and that we get the support that we need...but...we need to be thrown in there...I'm just worried about what their expectations are really going to be, what they expect us to be able to do.' (ST3/FGN) (Annex 5.4 p.37)

Discussion

It is clear that the personal tutor role makes an impact on the confidence and competence of newly qualified midwives. There is though overlap between expectations of the link lecturer and personal tutor roles, which becomes apparent when reviewing the varied models for how midwife teachers support students in practice.

Whichever approach is used, effective communication between all parties is vital to ensure appropriate support and monitoring of student growth and development.

Hughes (2004) believes that the relationship between the student and personal tutor is pivotal to the growth and development of the learner throughout their programme. The personal tutor role is central to student retention and completion (Watts 2010).

According to Phillips (1994, cited in Hughes 2004) the concept of the personal tutor has evolved over time with little apparent active planning or formality. As a result there is confusion over the role, particularly as it relates to supporting students in clinical practice (Hughes 2004). In fact, providing supervisory support is a crowded field when the Supervisor of Midwives is added to personal tutors, link lecturers and mentors.

Although the NMC stipulates that midwife teachers should support students both academically and clinically (NMC 2009), there are no guidelines on how this can be implemented (Watts 2010). By contrast, most universities provide guidelines for the

role of personal tutor, some being particularly detailed, specifying university regulations for frequency of contact.

While provision of support has been considered the central role of personal tutors in previous research (Rhodes & Jinks 2005), the effectiveness of the personal tutor role has been questioned by Myers (2008). Universities offer comprehensive student support services, but midwife teachers found that their personal students came to them for additional support, especially when it related to issues in practice. They also noted the considerable pastoral support they provided to students who had complex personal needs.

Students were concerned about equity in support and those students who found it difficult to access their personal tutor to discuss their concerns reported feeling less well prepared for midwifery practice. Time factors and workload can place major constraints on the personal tutor's role, Por and Barriball (2008) suggested that there might be a limit to the number of personal students who could be supported effectively and there would need to be careful consideration of the other responsibilities of the personal tutor.

3.2.3 Link lecturer role

Taking account of the evidence from the Annex reports, there is overwhelming agreement that midwife teachers have a vital role in supporting the practice based curriculum. Although the term link lecturer may not be used universally the activities that are seen as particularly important were identified as:

- supporting the mentors
- maintaining good personal relationships and communications with NHS staff
- monitoring or participating in the assessment of practice, especially tripartite discussions
- contributing to the development and updating of protocols, procedures, audits
- being available to support students

(Annex 5.3, page 26)

Although several factors were seen to affect how well midwife teachers supported the practice based curriculum, including the number and geographical spread of practice placements, the link lecturer role (sometimes referred to as liaison lecturer) was paramount. The various models for how the teachers in the case study sites linked with the practice sites are outlined in Annex 5.3, page 17-18. In addition, findings about the impact of the various roles on student performance in practice, the amount of time spent

on practice or related activities, and the kinds of activities undertaken in practice placements are illustrated in Figure 6, Annex 5.3, page 20.

Responses to the UK wide survey to midwife teachers about the frequency with which a list of activities were undertaken in supporting practice learning revealed that the majority of respondents focused on those related to the main areas of:

- student assessment especially within tripartite framework
- mentor support and updates
- clinical tutorials/skills sessions and learning environment audits.

In addition, from all Annex reports the issue of teacher credibility kept emerging. These four areas have therefore been used to provide the framework for reporting the study's main findings in relation to the practice link role of midwife teachers.

Student support and assessment

The importance of practice learning support was reflected by all students saying how valuable it was to them when they did see a teacher while on placements. Midwife teacher respondents also recognised the need to monitor the quality of practice based experiences and students' capabilities to use theory in practice and hence demonstrate competence to practise.

'With little time spent in the practice environment it is difficult to assess how the student has managed to relate the theory to practice and how this influences them as a midwife. This is especially as students do not always attend theory sessions as there is no formal guide from the NMC as there is to practice hours and the university do not consider it a necessity. However for the number of newly qualified students who are needing supported practice or are on supervised practice, following or during preceptorship, seems to demonstrate a failure on our part to adequately prepare them.' (MTQ) (Annex 5.3 p.24)

Teachers confirmed that having a curriculum that includes accredited practice modules does act as a catalyst for practice activity, as does the need for a teacher to participate in the practice assessment process. Some AEs allocate time for midwife teachers to participate in 'student clinical assessment', making it easier to justify undertaking the role. The tripartite process, although time consuming, was identified as key by most respondents on both the questionnaire responses and in focus group discussions.

'We have practice accredited modules which form part of the overall array of modules which contribute to the students attaining a first degree BSc Midwifery. We have a mentorship scheme. The main focus is a tripartite arrangement. At the moment we work in teams. The idea is that the mentor is coordinator and lecturer moderator. We meet up with the student and her mentor during the first week of placement and then during the last week.' (MTQ) (Annex 5.3 p.21)

'One day a week is generally spent in clinical practice, although some weeks this is less and some weeks much more. This is sometimes determined by several students requiring assessment in practice in the same few weeks. I undertake tripartite practice assessments in year 1 and 2 and mid and end of case loading tripartite meetings in year 2 and 3...' (MTQ) (Annex 5.3 p.21)

One of the preceptors to a newly qualified midwife emphasised the necessity of the teacher's 'mediating voice' (Pre13/PE45) when making judgements about students' levels of achievement. Other preceptors said how valuable they found the tripartite meetings when they were mentors to student midwives (Annex 5.5, section 3.3.2).

From the students' point of view, teachers in the placement areas were mainly involved in the assessment processes through advising mentors and advocating on their behalf and helping them reflect on learning experiences (Annex 5.4, pages 27-33).

'I usually see mine twice in a seven week placement, once for the midway assessment and once for the final assessment' (ST3/FGS)

'That's why they are all so different, so when ours comes out you don't feel that pressure, she's not there to judge you, or panic you, she just wants to see where you can improve or where you excel or what you need to work on. She's very supportive and doesn't want you to panic, she just wants to work alongside you and when she hears the feedback from the midwives she can relate to it rather than unnerving you with questioning.' (STs/FGH)

Mentor Support and Updates

As well as actually providing support for students during their time in placements, students believed it was important for the midwife teachers to provide support for their mentors and to be aware when there were problems with either the quality or continuity of mentorship (Annex 5.4 page 31). Teachers also believed they had a vital role in preparing and supporting mentors for that role.

'I feel mentors provide the role model and have most impact on practice learning as they either reinforce or negate evidence based practice and holistic care' (MTQ)

'.....Mentors need support to ensure they have the practical tools to make valid assessments and that their actions enhance the development of safe competent practitioners. Midwife teachers who know the mentors around them by name and experience are able to enhance the student experience and therefore development.' (MTQ)

Programme managers also saw supporting mentors' assessment of practice learning to be a key aspect of the teacher's role. However the PLs highlighted some issues relating to this activity (Annex 5.2 page 32):

- midwife teachers involvement in the assessment of practice varies
- not always clear whether the support is for the student and/or mentor

- the purpose and process of tripartite assessments varies
- midwife teachers can visit during a student's placement to discuss objectives, and with the mentor provide formative feedback.

Views expressed by LMEs include;

'..but the fact that we have a tripartite assessment means for us that we have a greater commitment to be out in the practice areas and to be involved, and it is time commitment' (LMED) (Annex 5.2 p.33)

'I get a sense that it might be disempowering on the mentor for somebody from the university to come in... I think that whatever the mentor says about their student has to be taken as valid' (LMEB) (Annex 5.2 p.32)

This view that it could be disempowering for mentors for a university midwife teacher to be involved was not shared by mentors. In fact they welcomed the teacher's involvement, especially when they had concerns about a student.

'I know that sometimes if the student has been incompetent, in the past, they (midwife teachers) have come along and worked with the student and that is good and just the feedback they get as well and you know the tripartite meetings that is very useful and there is a lot of positive comments that come out of that...' (Pre13/PE41) (Annex 5.5 p.60)

An alternative view from LMEs was linked to the need to award credits for practice learning and use the occasion to improve quality of practice assessment through teaching all concerned, mentor, student and midwife teacher.

'I would expect the mentor to lead that discussion, you soon begin to pick up if you find you are stepping in ...asking detailed questions and doing teaching at the same time as well' (LMEE) (Annex 5.2 p.32)

Teachers responding to the UK wide survey echoed this view believing they need to ensure mentors have the skills and up to date knowledge of best evidence to make valid judgements about a student's competence.

Clinical tutorials/skills sessions

There were differences in the level of support provided and some students reported that they would have liked more visits/contact from a link teacher, as well as, tutorials in the practice setting (Annex 5.4 pp29-30).

'Not many opportunities for tutorials in practice setting but the couple that happened were useful' (STsQ)

'There should be more links, closer links with the lecturers to placements.. it is just that we need that little bit more support, someone from the university being with us at some stage'(ST3/FGR)

'...she'll come out like my second or third week and just work with me for a full morning....if she feels there are areas I need to improve on, you have that time....' (STs/FGH)

Apart from involvement in student assessment processes, some teachers uphold students views about the value for clinical teaching for both midwives and students (Annex 5.3 and 5.4):

'We also lead student forums in clinical practice, clinical skills practice and tutorials. I also lead regular mentor updates and provide teaching sessions for midwives and student midwives in practice where learning can be shared'. (MTQ)
'I was doing a formative tripartite when we raised one of the things they were using as evidence of progressing...highlighted some areas of theory that they both needed to increase and because I was there I was able to say....we look on the internet...for the midwife, at the end of it she said 'ooh I'll put that down for PREP' (MT/FGI/52)

Credibility

The nature of midwife teacher's engagement with practice is variable and is determined by the particular organisation model used, by midwife teachers needs and strengths, and also the effects of other university roles they may have. However, teachers also suggested that it is essential to know what the realities are in practice for students and for the mentors and this can only be achieved through immersion in practice, not just visits to practice placements.

'...it's also wider than credibility...ensuring that you know, theory and practice sort of go together...you can soon become out of touch I think, so you need to be quite grounded in it, to find out what's affecting students and midwives on a day to day basis really.' (MT/FGI/22) (Annex 5.3 p.22)

Credibility in practice was also viewed differently between those midwife teachers who deemed it essential to engage in contemporary midwifery practice and those who considered it meant being up to date in knowledge, drawing on a wealth of past experience with perhaps some reluctance to undertake activities where competence was lacking (See Annex 5.3, page 21-22). Maintaining clinical credibility was seen as a broader issue by a number of LMEs who listed a range of activities that were acceptable in facilitating the midwife teachers being up to date (Annex 5.2).

Visiting practice was considered important by the majority to see students and mentors and provide support when there were difficulties. Being known to midwives and doctors in the NHS enhanced communication between the university and practice and added to their credibility.

'...supporting practice learning is very much part of our role and a lot of that is to do with mentor education, support with a student...' '...but we're now being compared with allied health professions...their tutors don't go into practice and yet it still works...' '...but how many emergencies do they have to deal with...'

'...how many of their students would phone you up on a Saturday...to talk something through...' (MT/FGI/52) (Annex 5.3 p.23)

Referring to models for practice learning support (Annex 5.2, pages 28-31) LMEs and PLs expressed similar views to teachers regarding variations.

'Activities include liaison with student co-ordinators, attend meetings, holding a 'surgery', work alongside students' (LMEC)

'...so they maintain the clinical area link as a social/professional contact, as well as, they have their personal students link which may be in any of the clinical areas....'(LMED)

'... the system falls down... students say I couldn't get my off duty until the Thursday or Friday...my mentor was changed because of sickness or holidays... but these are clinical issues, and the link midwife (teacher) is there to sort that one out' (PL 51)

Whether teachers actually provided 'hands-on' care or not, the majority of both questionnaire and focus group respondents mentioned 'good relationships' with their practice colleagues as a key factor in ensuring effective curricula. This was enhanced through being in close proximity geographically to their allocated link area, being actively involved in joint meetings, forums, audits and protocol groups, being 'known' as an experienced midwife by the practice team, and having an allocated service person to link with for liaison purposes e.g. practice development midwives or practice educators.

'Having an extremely good relationship with the midwives in practice. This is not only on a personal level, but also at a directorate level. We consider clinicians to be very much part of our team, an ideal that is reciprocated by our clinical colleagues'. (MTQ) (Annex 5.3 p.23)

'Attending unit management meetings, partnership on projects (eg maternity Support Worker training, Child protection etc).....' (LMED) (Annex 5.2 p.31)

Discussion

The link lecturer role was considered to be the most important part of the teacher's role in ensuring the quality of mentorship and monitoring or participating in the practice assessment process. Carnwell et al (2007) investigated managerial perceptions of mentor, lecturer and link tutor roles and how they work together to assist students to integrate theory and practice. The findings of their three phase qualitative study showed that they occupied different positions in the practice setting. Managers thought link lecturers were responsible for the curriculum, assisting students academically, quality assurance and audit. In addition, their views resonate with the findings of this study that the link role includes working with mentors, providing updates on educational changes, appraising them of learning outcomes and facilitating the assessment process.

The tripartite process was seen to be of particular value in ensuring fair and appropriate assessment decisions and for mentor and student support, endorsing a recommendation made 12 years ago in the EME study (Fraser et al 1998). How much time each teacher spent on this role and whether it was equitable across all practice sites was a variable, demonstrating little change since the ROLE project (Day et al 1998). What teachers should do as part of their link role was contentious with many believing immersion in practice essential whereas others felt visits and attendance at relevant meetings was sufficient. From the students' perspective immersion in practice would appear to better fit their expectation. Brown et al (2005) sought student nurses views about the role of lecturers in practice placements and they clearly desired clinical visits. They found that the lecturer's presence, helped to maintain standards.

There were a considerable number of respondents who believed that the NMC requirement for 20% time to be spent on the practice link role was necessary, but less than 50% found they were able to achieve this requirement (Annex 5.3). Like the findings of previous studies (Cave 2005, Carnwell et al 2007), there were a small number of teachers who did not think their university lecturer role required them to undertake much time linking with practice whereas others found they needed to spend significant amounts of time in the practice setting. The latter view was also a finding of a small as yet unpublished action research study (Kemp, 2010 communication with the MINT project team).

There was a desire for the student's personal tutor to also be the teacher that has the link role with their practice base. Where this was not possible there was an expectation that there would be good communication between the two and their personal tutor would be available should they need to make contact while on practice placements. In a qualitative exploration of student midwives views of caseloading, Rawnsome et al (2009) identified that the attitudes of the midwife mentor and the link teacher were seen as important and impacted on their confidence in preparing, and learning from, their experience. They highlight the importance of shared understanding and commitment to agreed support mechanisms. Similarly, evaluation of the role of practice education facilitators in Scotland (Carlisle et al 2009) demonstrated their value in supporting mentors, especially when dealing with 'failing' students, as well as encouraging identification of innovative learning opportunities. These findings mirror the views of the current study participants. In terms of improving communication Hogard et al (2005) conducted an audit, that included link teachers, that showed some dissatisfaction with what was perceived to be insufficient communication regarding allocations, learning outcomes and the curriculum. Students expect link teachers to consider the learning

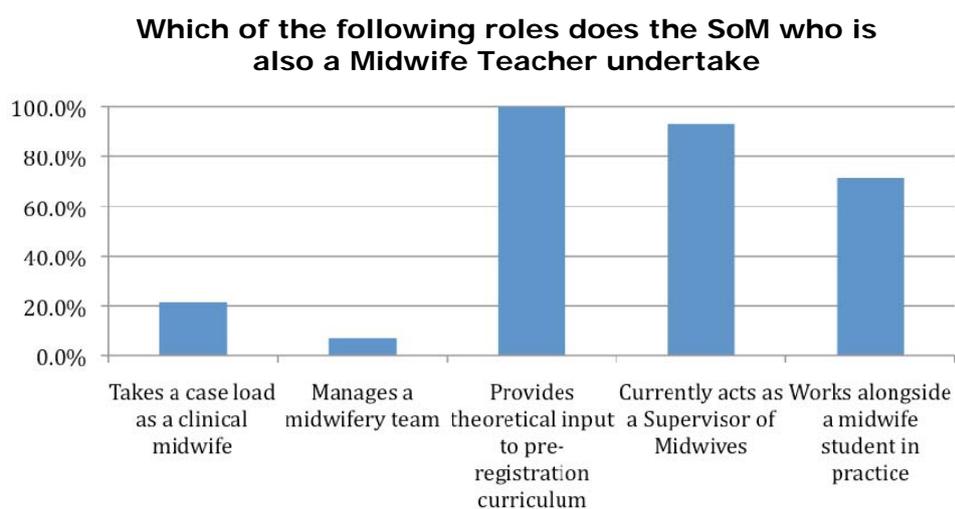
experiences available in a clinical placement, as well as supporting mentors and that minimal contact with the teachers was interpreted as lack of interest (Andrews et al 2006).

The role of midwife teachers monitoring their progress in practice through tripartite meetings with the teacher, mentor and student was seen as invaluable. However the majority of students would like the opportunity to work with a teacher when in practice and were aware that some students had these opportunities and some did not. Strong links between clinical areas and AEs, and a rigorous assessment process is an expectation of the NMC (2008).

3.2.4 Supervisor of Midwives

The UK wide midwife teachers' survey showed that 44 respondents (20% of total) were also Supervisors of Midwives (SoM) and that each of the case study sites had at least one midwife teacher who is also a SoMs (Annex 5.3, p.7). The student data did not identify the SoM as one of the roles undertaken by the midwife teacher and there was no reference to the Supervisor of Midwives in either the student survey or focus group data (Annex 5.4). There was however recognition of the role of a midwife teacher as a SoM by a newly qualified midwife who received support from a midwife teacher, who is a SoM, following a difficult key event (Annex 5.5 section 3.1.4). Despite this, data from the LSAMO survey showed their awareness that midwife teachers who were also SoMs were engaged in a range of practice and education activities as seen in Figure 1

Fig. 1 Role activities of MTs who are also SOMs (n=14)



This would suggest that although student midwives had contact with midwife teachers who were SoMs within the pre-registration curriculum, they probably did not associate the role of the SoM with a midwife teacher.

The SoM part of midwife teacher's role varied across universities in relation to their supervisory caseload, whether they undertook 'on calls' in the NHS and whether remuneration was received by the midwife teacher or the university. The midwife teacher's contribution was largely seen in relation to the maternity services where supervisor of midwives met with their supervisees, attended supervisor of midwives team meetings, communicated with the LSAMO, attended conferences and were well informed about maternity service provision. The evidence showed that being a supervisor of midwives was valued by midwife teachers as it enabled them to keep up to date and contemporary information from practice was made available to the team of midwife teachers, as seen in the interviews with programme leads (Annex 5.2 p.31) and midwife teacher focus group interviews (Annex 5.3 section 3.1.2):

'..I am much more aware of the issues within practice, particularly around regulation... and you are constantly up to date and anything that comes from the NMC...'(MT/FGI/02)

Stapleton et al (1998) looked at midwife teachers as supervisors in their multicentre evaluation of the impact of the supervisor of midwives on professional practice and the quality of care. They found that in the North West of England the use of midwife teachers as supervisor of midwives was questioned but where midwife teachers undertook this role they had the same responsibilities as the clinical SoM, including carrying a case load. Duerden (2000) reported the same findings in her audit of SoMs in the North West. They emphasised the professional development responsibility of the SoM and saw the midwife teacher who was also a SoM being well placed to fulfil this responsibility. At the time of the Stapleton et al study in 1998 the majority of SoMs were midwifery managers. Their conclusion may differ in 2011 when consideration is given to the variety of roles and grades that can be seen in SoMs. The literature does not clearly show this variety of roles but it is a useful variable to consider in relation to Stapleton et al (1998) findings. Future NMC analysis of LSA reports could be a conduit for providing this information (NMC 2010).

Rogers (2002) undertook an audit of midwife teachers needs in relation to supervision of midwifery, as a follow up to Stapleton et al (1998) and Duerden's (2000) work using a revised version of their evaluation tool. Her findings mirrored the demographic data of the midwife teachers (Annex 5.3) in that there was one supervisor who was an educationalist at the university studied. Her audit also showed that some midwife

teachers only wanted a SoM from education in the belief that it would increase their understanding of the dilemmas facing midwives in education. This would suggest that specific guidance is required by SoMs in relation to supporting midwife teachers in the academic part of their role. Rogers (2002) and Bacon (2010) also argued for a strengthening of the profile of supervision in the development of pre and post registration midwifery education.

Although the evidence is limited it (Annex 5.3 and Annex 5.4) showed that the role of the midwife teacher who is a SoM needs to be visible in the curriculum. The midwife teacher who is a supervisor of midwives would therefore seem to add value (Annex 5.3) to a midwifery education team.

3.3 Evaluation of Midwife Teacher's input on the quality of care received by mothers and babies

Findings in this section are predominantly taken from the evidence in Annex 5.5 which reports the views of newly qualified midwives (NQMs), their preceptors and supervisors of midwives (SoMs). These findings inform the evaluation of the contribution that midwife teachers make to the quality of care provided by newly qualified midwives to mothers and babies. The synthesis of findings focuses on the key events that newly qualified midwives encountered and their reflections on how well their education curriculum prepared them to deliver midwifery care (3.3.1). Evidence from the diaries also allows a description of their induction, preceptorship, contact with SoMs, and overall progress (3.3.2).

3.3.1 Evaluation of midwife teacher input

The following section, provides an overview of key events identified in the diaries, describes how newly qualified midwives said they coped with these events, and their reflections on the impact of midwife teachers and their education experiences on their competence and confidence as registered midwives.

Categorising key events

There were a total of 263 key events described by 35 newly qualified midwives (Annex 5.5 section 3.2.1). It was apparent that some had selected low risk normal midwifery events to illustrate their competence and confidence to practise as registered midwives. Others focused on key events that suggested complexity, not necessarily recorded to highlight a negative impact but rather as an opportunity to reflect and affirm their knowledge and ability.

Key events were categorised according to how they illustrated the newly qualified midwife's development of confidence.

'On my second shift I was allocated 3 postnatal women to care for in the morning. These were low risk women following spontaneous vaginal deliveries. Although I was working on my own and wasn't being counted as supernumerary I felt confident in delivering midwifery care... During my training a great deal of emphasis was placed on providing care to low risk women.' (PE31) (Annex 5.5 p31)

'Did well, it was lack of confidence that made me get a more experienced colleague to check – but she was wrong and was 'kicking' herself for getting it wrong..., had sufficient knowledge, but had lack of confidence in my own opinion because of my lack of experience' (PE34) (Annex 5.5 p.33)

A number of events allowed newly qualified midwives to identify gaps in their knowledge or experience. The diaries gave a clear picture of the inter-relationship between knowledge and practical experience that made it difficult for the newly qualified midwives to separate them when reflecting on key events, but in many cases, it was experience that was the missing component.

'it's hard to know that you are competent isn't it? because I don't think you can ever be a 100%, because you never get something right every time, so confidence is definitely my issue, I suppose if you do it then it is a confidence issue, and an experience issue'. (PE04)(Annex 5.5 p.31)

'We do not have experience in theatre in our training and I think there should be. In fact, I don't feel we had enough labour ward experience at all as a student, and that experience all depends upon our mentors' (PE84) (Annex 5.5 p.35)

'Gaps were time management and multi-tasking. These are difficult to teach – experience helps you to acquire them' (PE11) (Annex 5.5 p.35)

'When emergencies happen during training, the mentor takes over so don't learn to assess priorities etc until you do it for yourself'. (PE94) (Annex 5.5 p.35)

The diaries also drew attention to events that caused newly qualified midwives to articulate their frustration and stress because they were unable to deliver care according to their expectations and training. The complexities of prioritisation in day to day practice could challenge their ideas about ideal practice:

'The week was again very busy and short staffed. I found myself on a shift with a full 30 bedded ward and being one of 2 midwives on duty. It was very busy and I felt that I could not provide the level of quality care that I wanted to because the postnatal women were all keen to go home plus I had to prepare a woman for a category 3 section due to rising anti-e titres at 34 weeks'. (PEs102) (Annex 5.5 p.36)

Coping with key events

It is evident that all newly qualified midwives recognised events that encouraged them to feel confident in their skills and abilities to deliver midwifery care in normal antenatal, intrapartum and postnatal settings. They reflected that this was usually a direct result of the comprehensive focus in the curriculum on normality. They also described having sufficient knowledge of managing and supporting high risk maternity care events but felt less confident in providing midwifery care to women with more complex needs, especially when they thought that they had had limited experience of managing complications as a student.

'In dealing with sudden blood loss after the delivery, I felt I knew what to do but due to my inexperience was a bit slow... The co-ordinator came in and took over. I felt useless! (PE45) (Annex 5.5 p.35)

Evidence from the diaries did highlight some gaps in knowledge and experience where newly qualified midwives felt there could be better preparation during the programme (Annex 5.5 3.2.2 p.37-44). Most frequently cited deficits included:

- dealing with high risk and complex situations
- managing workload and prioritisation
- knowledge and experience of drugs and methods of administration
- working in high dependency and theatre environment.

Other areas highlighted depended on meeting the needs of women and families with more specific problems to include:

- women with concurrent medical conditions e.g. diabetes
- women with mental illness
- babies with special needs
- ante-natal screening tests and their consequences
- complex psycho-social problems.

Evaluating the impact of midwife teachers

In their diaries, newly qualified midwives drew attention to the value that they placed on having a wide range of core and specialist placements in a mix of different midwifery provider units during their programme, this range of practice experience was important in developing the confidence to respond in the key events they identified.

Participants provided an insight into the specific knowledge and experiences that helped them cope with the key events they described, these are summarised in Table 3.

Table 3 Source of knowledge and skills for coping with key events (abridged version of Table 5 in Annex 5.5 section 3.2.2.1)

Knowledge gained in University	<i>Basic midwifery skills. Monitoring maternal wellbeing- BP, pulse, temp, lochia etc fetal wellbeing and observations. Recording observations appropriately. (PE11)</i>
	<i>Knowing deviations from the normal i.e. shivering, pyrexia, preterm labour... Helped me feel competent about the observations and knowing that something was not right with the preterm labour lady. (PE85)</i>
	<i>The knowledge that people have differing levels of understanding according to varying factors including their education, age, culture, ability/disability, area of expertise etc, and the skill of pitching communication according to level of understanding in order for it to be most effective. (PE15)</i>
	<i>Mainly from university - advocacy for mothers and selves - confidence from course re professional responsibility (PE57)</i>
	<i>One lecturer gave us in depth knowledge of lactational amenorrhoea - something I had not heard of prior to my training. I now regularly recommend this as a method of contraception. (PE41)</i>
Practice placements undertaken as a student midwife	<i>I think it was my midwife in practice that gave me the most confidence, and I was proactive and went down as a student to many c-sections to gain that confidence (PE93)</i>
	<i>Dealing with Theatre list for CSs - Learned this type of knowledge through experience on placements BUT lots of paperwork involved - can only learn by doing (PE06)</i>
	<i>4 weeks placement on induction unit in 2nd year, busy unit, gained all skills needed so confident (PE44)</i>
	<i>Time on fetal maternal medicine helped me learn about gastroschisis (PE65)</i>
Experience as a registered nurse	<i>Experience looking after high risk women and also nursing experience (PEs193)</i>
	<i>This situation was more like my experiences in A & E (PEs112)</i>
OSCEs / skills drills / skills practice as a	<i>Practice episiotomy and suturing in skills laboratory and do OSCE (PEs122)(PE31)(PE73)</i>

student in a skills laboratory	<i>Intrapartum care and recognition of fetal distress learned all on course. Baby resuscitation from OSCES (PE57)</i>
	<i>Providing me with a basic understanding and appreciation of safe practice in this type of incident. I was able to draw on role play scenarios and discussion in university to inform my practice. (PE52)</i>
	<i>The practical elements in the skills laboratory were taught by mentors and they helped me to have the confidence to understand the specific process as set out by hospital policy. (PE03)</i>
Midwife mentors during pre-registration programme	<i>I feel that mentors / midwives you work with in clinical environment have a greater impact on my competency than lecturers and it is difficult for them to do this when they are not working with you in the clinical environment (PE31)</i>
	<i>During my midwifery training and the experience I had within the midwifery led unit. I also thought back to the interactions I had with my mentors and how I had learnt to deliver (PE44)</i>
	<i>I was very lucky because I had some fantastic mentors, who would strive to give excellent care, being really meticulous in their record keeping, I worked with very good midwives and I just feel that I was set a very good example (PE63)</i>
University and placement	<i>Caring for a woman following a stillbirth - Some things had been covered in training, we had a midwife with personal experience come in to talk to us about her feelings and what happened and the protocols etc, we had also had the chaplain come in to talk to us so all that gave the principles of what needed to be done but it couldn't all be done in the classroom but what I had was preparation for me to then have this experience (PE17)</i>
	<i>Shoulder dystocia -Learn in university and had experience as student plus mnemonic! (PE12)</i>
	<i>Breast Feeding - Knowledge gained in university up to date and evidence based. Skills in university practical sessions and on placement (PEs133)</i>
	<i>At my trust they run Practice Learning Team (PLT) meetings and I found they were excellent to discuss problems / skills</i>

University and Placement continued	<i>etc. with midwife mentors and teachers alike to foster knowledge and proficiency and wish they would facilitate emergency skills for students through this where we can learn from mentors/ other midwives who have had experience with it (PE73)</i>
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Although having a satisfactory range and diversity of high quality practice experiences was deemed essential to acquire confidence in the skills they needed to practise as a newly qualified midwife, the diaries also drew attention to the value of OSCEs, supervised skill sessions, and clinical simulation learning. They also noted that the efficacy of learning through skills sessions or simulation was dependent upon having a sufficient number of midwife teachers with the appropriate skills.

'When we were practising suturing, the people at the front, the lecturers were just sucked in, and they never got to us and we were just sat there with our bits and pieces.' (PE04) (Annex 5.5 p.40)

The diaries also provided evidence regarding the role of indirect supervision in building confidence in the transition to becoming autonomous in decision making and delivering midwifery care. However, the newly qualified midwives drew attention to differences in the way that learning opportunities were recognised and exploited by mentors or placement providers. Even if learning opportunities were available that could help students gain required skills, clinical risk management policies could prevent students being able to practise these skills in placement areas (Annex 5.5 p.56):

'...we are not able to connect pumps up. I know all the principles...but we have not actually used them...' (NQMI3/PE11) *'...in the past the student would connect up the drip and do it all...OK still supervised...I need to do something hands on...I think they should be doing that as they go along in their training...'* (Pre13/PE11)

Some mentors were also thought to be too cautious. One interviewee described a situation where a placement provider did allow students to put up IVIs under supervision, but not all mentors permitted their student to do so.

'...I mean A (mentor) was quite good letting me do it, but a lot of other mentors don't necessarily allow you to do it...and it's just getting the confidence...it's more measuring up whatever it is...and flushing and things like that...' (NQMI3/PE45)

Diaries recorded an appreciation of the midwife teachers' input on the foundations of normal maternity care as well as dealing with high risk and emergency obstetric situations and the midwife teacher's contribution to communication skills were also emphasised. It was clear that midwife teachers were not only integral to the learning that prepared them for being qualified, but they could not identify any further input during their course that would have helped, 'nil more needed' or 'could do no more' were

often repeated. The midwife teachers were also regarded as pivotal in providing confidence for the newly qualified midwife to seek further information when more complex needs developed.

'The lecturer who led the [name of] module made a significant contribution to my practice. She delivered dynamic and fascinating lectures on a range of topics which we had input into selecting, she made extensive use of the university intranet system, setting up and actively participating in discussion forums, encouraging us to read widely on the topics to support our pieces from which we selected those for assessment, in addition to making herself available to provide academic support and a listening ear. She stimulated our thirst for learning, offered support and advice on issues faced in practice and prompted us to seek out learning opportunities in practice. We learned extensively about multi-disciplinary working and were encouraged to actively participate in this on placement.' (PE74) (Annex 5.5 pp44-45)

The diaries of the newly qualified midwives' key events drew attention to the contribution of the midwife teacher in the tripartite meeting and assessment in practice. It was thought that midwife teachers brought to the tripartite assessment an understanding of the assessment criteria and they could monitor the fairness and validity of mentors' assessment judgements.

'... but there were times when there was something I had been over scored and when I was questioned I thought perhaps I am not quite there and there was a time when a whole assessment document was taken and started again because I had been underscored quite a lot and that was felt by one of the lecturers so we worked through it... you are banking everything and it is really important for your course on one mentor and if they are not 100% sure of the booklets, and bless them they are changing all the time, so they think they are doing the right thing by you, so it's worth having the lecturer coming and saying actually do you realise that means you will be giving her a D- and do you feel that is where she is at? and they say oh gosh no that's not what I mean at all, so it's invaluable.'(PE04) (Annex 5.5 p.45)

Deficits and suggested improvements

The newly qualified midwives, by identifying their own key events, were able to recognise deficits in their respective educational programmes that could have been corrected, and they provided some suggestions for improvement. Further information on gaps in the education programmes was obtained from the seven joint interviews between preceptors and newly qualified midwives. There was general acknowledgement that the midwifery programme, especially the shortened programme, was a crowded curriculum. An increase in practice sessions supervised by midwife teachers either in university simulation sessions or in practice placements was requested by newly qualified midwives. Further opportunities to learn about medicines used in obstetric and medical care, and experience in delivering medicines, particularly via the intravenous route, was a clear requirement from the three year programme students. Sessions on decision making and the prioritisation of care, delivered through workshops or simulation

sessions, was advocated to help newly qualified midwives to manage high pressure situations, particularly in intrapartum and postnatal settings. There was a general view that they needed more input on high risk and high dependency care, although it was recognised that these were less frequently occurring events and that practical experience in dealing with these cases might be just as beneficial.

Suggested areas where the newly qualified midwives felt the midwife teachers could do more can be summarised as (see Table 4):

- more involvement in practice learning
- more practical skills sessions in a skills laboratory
- more emphasis on complications
- more encouragement in the development of students' personal qualities e.g. initiative, assertiveness.

Table 4: Suggested areas where the MTs could do more (abridged from Annex 5.5. Section 3.2.3 Table 6)

More involvement of Midwife teachers in practice	<i>Need practice sessions with groups in practice setting from MTs (PE22)</i>
	<i>EBL was not sufficient; our tutors should have come out and taught us in practice (PE84)</i>
	<i>More regular visits may help or one to one meetings to discuss clinical events (PE31)</i>
	<i>Would have been nice to have someone(midwife teacher) do a delivery or a shift (PEs112)</i>
More practical skills in a skills laboratory	<i>CTGs should have a high profile. (PEs112)</i>
	<i>Drug rounds and dispensing medicines (PE55)(PE16)</i>
	<i>IV drug administration (PE44)(PE31)</i>
	<i>Drug calculations and administering IVI antibiotics(PE22)</i>
	<i>Cannulation(PE44) (PE04)</i>
	<i>Role play around grief and loss (PE44)</i>
	<i>Neonatal resuscitation. Need more practice on dummies(PE55)</i>
	<i>Cardiac monitoring specific to pregnant and labouring woman. (PE44)</i>
	<i>How to scrub for a Caesarean Section (PE45)</i>
<i>A theatre drill in an empty theatre (PE65)</i>	
<i>Perineal suturing (PE04)</i>	
<i>Application of fetal scalp electrode(PE94)(PE41)</i>	

More emphasis on complications	<i>More practice with complication scenarios (PEs112)</i>
Uncommon situations	<i>Use of group reflection/case study discussion to share the cohort experiences (PE63)</i>

Joint interview data validated the findings above through reinforcing specific areas for improvement in knowledge and experience. These included: CTG interpretations; perineal suturing; emergency skills drills; accompanying a women to theatre for a caesarean section; greater knowledge to deal with women with medical problems as well as obstetric problems.

'...and CTG interpretations, you don't cover that in your training really...it should be introduced a lot earlier and you should have some classroom background work as well...' (NQMs/PEs193) (Annex 5.5 p.56)

'...I think it's something (suturing workshop) they could be exposing people to a lot earlier really, at the time that they even start undertaking deliveries.' (Pre13/PE45) (Annex 5.5 p.57)

Stakeholder Views

The key events described by the newly qualified midwives included feedback from mothers and their families. As might be expected, the newly qualified midwives were able to identify positive feedback, whether in the labour suite or in the wards or clinics.

'Y was thrilled that she had delivered without any pain relief and was full of thanks and praise for me in helping her to achieve this' (PE15) (Annex 5.5 p.49)

'Mothers see lots of midwives, not one to one but generally good feedback' (PE22) (Annex5.5 p.49)

'I got very positive feedback from the SIC on both shifts, for my work with both the woman and the rest of the MDT. I think this was encouraged by nursing experience in busy emergency units where concise communication with the MDT is essential. I was so pleased to have positive feedback from the woman I worked with which I feel was also represented in early breastfeeding and expressions of satisfaction after the birth from the woman who had delivered. It was really reassuring getting this feedback from the mother , and also the constructive feedback from the SIC, as it made me feel I was starting to work to the standards of a RM I wanted to with direct suggestions on how to improve my paperwork' (PEs123) (Annex 5.5 p.52)

Evidence of positive feedback from colleagues and senior midwives was also recorded together with their advice and encouragement to the newly qualified midwives. This was reported more frequently in relation to experiences around intrapartum care where supervision was more readily available to the NQM.

'Very positive feedback from team. I received feedback from the risk management team as any shoulder dystocia delivery is automatically referred to them for auditing of notes. I was pleased that my documentation received praise and that this feedback was disseminated to the head of midwifery and my supervisor of midwives' (PE44) (Annex 5.5 p.50)

'M complimented me on being able to pick up on the signs and involve the whole team early on (Abnormal CTG, cord prolapsed)... referred to in case conference also and complimented on making a good judgement call. Got nice flowers and a card from mother' (PEs122) (Annex 5.5 p.52)

'Encouragement and praise to have tackled the work load with little back up as unit busy and asked appropriately for assistance where unsure' (PE73) (Annex 5.5 p.51)

The few examples of negative feedback recorded in the diaries were tempered with advice for future improvement (Annex 5.5 p.50).

'I got feed back from the ward co ordinator who said I needed to have stated my case clearer to the labour suite co ordinator and pushed further to have got the CTG reviewed. She was more giving me advise for next time. She said I had done the right things just not been assertive enough' (PE93)

'Co-ordinator explained next day alternative sources of help e.g. Dr to help with putting on electrode. Gave praise for things she had done right in managing other women. Asked NQM if it was workload or not getting help that made her flustered - first few weeks labour suite' (PE94)

Overall both preceptors and SoMs were very positive about the newly qualified midwives participating in this phase of the study. No negative feedback had been given and they knew of many women, other midwives and consultants who had been particularly complimentary about them (Annex 5.5 p.53).

'...is showing good qualities as a midwife – she has entered the maternity services at a difficult time as we have had severe staff shortages. During the early weeks she has dealt with an emergency on the ward and coped well.' (PreQ3/PE11)

'My preceptee was an excellent team member and was able to communicate effectively with the MDT. One consultant was very impressed at her knowledge and was surprised to find out she was newly qualified.' (PreQ3/PE44)

Evidence from the seven joint interviews showed that preceptors recognised that newly qualified midwives would be anxious about the transition from student to midwife, but that they had every confidence in their abilities to provide care to women whose pregnancies were straightforward. Preceptors who had known the newly qualified midwives when they were students believed that they often had a tendency to underestimate their abilities and knew they would ask for help if in doubt. Shortened programme students were particularly anxious about intrapartum care because their programme was so short and placements on labour suite were limited.

'When I was doing my training, the three yearers...are confident, we feel like the poor relatives...they seem super confident...' (NQMIs/PEs193) (Annex 5.5 p.55)

From a synthesis of feedback from all sources, it would appear that the newly qualified midwives who adapted best were those:

- who gained employment soon after qualifying
- were employed in units where there was good support and a well organised preceptorship period
- whose mentor (when students) had 'let go' to enable them to practise with minimal supervision when care was straightforward and also gain experience in caring for women with complications
- who took the initiative to learn new skills and knowledge
- who were able to prioritise activities appropriately
- from AEs who
 - had provided sufficient and appropriate skills sessions,
 - balanced normality teaching with complexity
 - and had good midwife teacher support whilst in practice.

The majority of stakeholders appreciated the quality of care provided by the newly qualified midwives who participated in this study. However, it should be noted that the pregnancy and the birth of a child is intrinsically a happy event, so that there may be a 'halo' effect to any feedback provided by mothers and families. Feedback from senior midwives, colleagues and preceptors may be more discriminating and provide greater insight into the overall evaluation of quality of care delivered by newly qualified midwives. Preceptors in particular were able to recognise competent practice and also recognised areas where confidence was lacking.

Discussion

The UK wide survey of LSAMOs revealed that during a three year period between April 2007 and March 2010 no 'first year in post' midwives had been referred to the NMC for lack of competence. However, a small number (n=22) had required a developmental programme and/or a supervised practice programme. Of these all but one had had up to a year's delay before obtaining their first posts after completing their pre-registration programme.

The evidence in Annex 5.5 indicates that newly qualified midwives believe themselves, and are judged by others, to be competent at the point of registration particularly in caring for women with normal pregnancy and labour. The diaries strongly reinforced the newly qualified midwives belief that they were able to provide the quality of care that

they saw as 'ideal', which reinforced their confidence in their competence. However, they found it difficult to match the speed of action and decision making of more experienced colleagues, often self-conscious about their awkwardness in performing clinical skills. They were also concerned about being able to deliver high quality care in pressurised situations. However, in general, they recognised that, with further experience, the facility and swiftness of action that they expected of themselves would be acquired. They found that their confidence was reinforced if they had coped with caring for women with more complex care needs. Overall, they believed that they had a sound knowledge base, and, most importantly, good support from the team of midwives on the shift.

It is apparent that there is a difference between being judged to be competent and feeling oneself to be competent. Butler et al (2008), in their exploration of the essential competencies needed by midwives at the point of registration, suggest that competence equates to being safe. The authors argue that being safe implies a certain degree of self sufficiency to provide the full range of care for a woman with normal pregnancy without supervision, detect deviations from normal and take appropriate action, select and use up to date knowledge in providing care, and have self and professional awareness. All of these characteristics were evident in the descriptions given by the newly qualified midwives of their key events, and confirmed by the information from supervisors and preceptors. What they seemed to lack was the confidence that they could perform these activities with the facility, ease and speed that they expected of themselves as newly qualified midwives. They recognised that they still needed time and further experience to build up their confidence.

Holland et al (2010), reporting on a recent evaluation of fitness to practise in recent graduates in nursing and midwifery in Scotland, found that the predominant opinion of stakeholders was that they were fit to practise. They report that newly registered practitioners perceived lack of confidence is a function of their transitions to a new role. The development of confidence amongst newly registered practitioners is related to an unrealistic level of self expectation and anxiety about how to apply their knowledge when taking on a new role (Maben & al 2007). Senior midwifery students in this study displayed similar anxieties when discussing their preparedness for working as registered midwives (see Annex 5.4). A number of nursing studies have found that confidence is quickly gained with time and experience (Gerrish, 2000; Clark and Holmes 2007; Maben et al 2007), and the evidence from the diaries indicates that when newly qualified midwives were given time to consolidate in a particular work environment and provided

with good support from the midwifery team they quickly acquired confidence in their abilities.

The study by Holland et al (2010) considers limitations on the scope of learning opportunities in practice placements during pre-registration programmes. They argue that earlier reports of clinical skills deficits that call into question 'fitness for practise' needed to be challenged through an alternative emphasis on safe and competent to practise. They argue that competent to practise means that, at the point of registration, the practitioner is safe and has the basis for a lifelong learning experience to assimilate progressive development of expertise in the role of a registered practitioner. The diaries and information from preceptors and Supervisors of Midwives confirm the view that learning opportunities, especially in the final few months of the programme as the student is preparing for independent practise, can be limited by risk management policies and caution amongst mentors. Even senior students were unable to practise, under supervision, elements of care that would be expected of them as soon as they qualified. The value of 'confidence cases' during intrapartum care was highlighted and there is an argument for expanding such practices to antenatal and postnatal arenas.

For those students completing the three year programme, management skills and gaining confidence in prioritising care was highlighted as a deficit. There was evidence that the majority of newly qualified midwives needed additional support to gain confidence in dealing with complex maternity care. It was also highlighted that midwife teachers could include more teaching input on complications and how to deal with them within the curriculum. However, current participants echoed the views found in Holland et al (2010) that there is no substitute for gaining experience in practice for learning how to deal with high risk childbirths, emergencies and women with complex needs.

Newly qualified midwives believed that, on the whole, they had been supported to develop their knowledge to the extent that their teachers 'could do no more', it was usually experience that was lacking in developing their confidence. A proxy way to gain experience through OSCEs and simulation exercises in a safe environment allowed students to practise skills that they do not have time or mentorship to develop in practice (Robertson 2006). Practising skills in a controlled simulation setting evaluates positively (Lathrop et al 2007) and can help build confidence (Gordon and Buckley, 2009) and reduces anxiety in emergency scenarios (Birch et al 2007). However, the quality of learning depends on the facilitators, in this case midwife teachers, who need to be confident and up-to-date in their own clinical skills (Strand et al 2009). Where patients and clinical practitioners are also involved in practical skills teaching it has been

argued to narrow the theory practice gap experienced by many students (Borneuf and Haigh 2009; Kitson-Reynolds 2009).

Some specific deficits in the curriculum content were highlighted by newly qualified midwives to include dealing with women with concurrent medical conditions and mental illness; babies with congenital abnormalities or special needs; women coping with the consequences of ante-natal screening tests; families experiencing complex psycho-social problems. These can be debated as possible additions to future programme planning or could be accepted by employers as part of the development needs of newly qualified midwives.

The practice role of the midwife teacher and their involvement in assessment of practice learning processes were highlighted as areas for improvement. Evidence from all sample sources have provided evidence to support the strengthening of the practice role of midwife teachers (see section 3.2)

3.3.2 Transition experiences of newly qualified midwives

The following section provides an overview of posts obtained, induction, support and the ongoing experiences of the diary participants. The majority of newly qualified midwives in this study gained employment within 6-8 weeks of completing their programme, most gained employment with service providers who had been part of their learning circuits for practice placements. Where employment was not available locally, a number of newly qualified midwives moved country to gain their first work experiences. Others waited 4-6 months for a temporary part time employment with their local service providers. The majority of newly qualified midwives (n=34) obtained employment within hospital based maternity provider units. One participant chose her first employment with a community team and this proved to be a stressful experience because of lack of structured preceptorship and supervised support with caseload management.

Induction programmes were available for the majority of newly qualified midwives even if variable in start time, length of programme and content. In many cases a generic employer focused programme was supplemented with specific maternity inputs. A formalised induction period that included an integrated package of named preceptor or SoM together with development objectives was viewed positively by the small number of NQMs who experienced this model.

'The Preceptor and SoM were allocated and reviewing progress on regular basis – joint meeting at 10 weeks. Objectives set for Year 1 – part of NHS Knowledge and Skills Framework for re-banding' (PE16) (Annex 5.5 p.21)

All participants experienced rotation systems within a hospital based provider unit, moving between labour suite, ante and post natal care and clinics. Experience in the community during a rotation programme was minimal (two weeks) mentioned by only one respondent. Timing and frequency of rotations were an important variable in the newly qualified midwife gaining confidence in areas of practice. Too short a time span between changes was viewed as stressful, 'a roller coaster ride'. On the other hand, too long in one area (up to six months), particularly if it was a clinic placement, meant that first experiences in dealing with intrapartum care might be at least six month post qualification.

'I feel that going to labour ward is going to kill me. There is another new midwife who started the same day as me, she went straight to the labour ward and we compare experiences and I am very, very worried.'(PE36) (Annex 5.5 p25)

Apart from one maternity provider site, having a supernumerary status during first weeks in employment was rare, a maximum of two shifts at the most. However, participants frequently commented on the positive support received from their fellow midwives and from senior midwives in the team.

'.....the support I received from the Matron and other midwives was amazing. I knew that I could ask any of them anything and was frequently asked how I was doing and given reassurance' (PE15) (Annex 5.5 p.20)

'Terrified most of the time but it was brilliant. Enjoyed it, as was so well supported, as stated above, felt more supported than at any time during training' (PE16) (Annex 5.5 p20)

A total of 26 (74%) newly qualified midwives indicated that they experienced preceptorship in one form or another. The majority had a named preceptor, two participants indicated that they were allocated an 'assessor' to 'sign off' their skills development booklet. Although preceptors were allocated or were requested by newly qualified midwives, the newly qualified midwives' experience of preceptorship was generally 'ad hoc', apart from the formal process identified earlier.

'No Preceptor identified until week 6 when the NQM needed to talk with someone following a key event relating to the birth of a baby with congenital abnormality, the event was discussed with a senior midwife who then offered to act as her preceptor. No further involvement with a preceptor was described in the diary' (PE45) (Annex 5.5 pp21-22)

Contact with SoMs, where one had been allocated, was minimal unless a meeting was initiated by the newly qualified midwives in response to an 'event'. Any formal meeting was usually planned for the end of the first six months in post. Evidence from joint interviews confirmed that support from a SoMs was not the usual experience. The lack of appointment of a SoM was highlighted by one newly qualified midwife when stressed

by events that she might have wished to discuss with her SoM, if available (Annex 5.5 p.23).

'There was no named SoM allocated at the beginning, in week 4 a diary entry stated 'Completed incident form for PPH. No contact from SOM' and in week 13 'Still don't know who my SoM is! (Must make a point of finding out)' (PE45)

'Perhaps a deficit of the course is some information on how to use your SoM. Some universities bring in the use of a SoM for their students while on the course, we did not have that. There is a gap in knowledge here on when it is appropriate to go to your SoM or the 'on call' SoM when you are unhappy about something'. (PE57)

Quality of support was essential to newly qualified midwives gaining confidence, there was evidence that stability and positive feedback during the first work placement was linked to satisfaction with their job and feelings of confidence. The development of confidence was linked to participating in normal labours or with having time to provide quality antenatal or postnatal care, particularly when supporting mothers with breastfeeding. Preceptors expressed concern about setbacks in confidence for those newly qualified midwives who had delays in finding employment, who had no preceptor, or who did not know which SoMs was allocated to them or who were, because of staff shortages, moved about between wards and labour suite without receiving an orientation to the new area.

'Post natal ward first allocation – stressed when busy or when asked to provide 'cover' to Labour suite or Admissions/Assessment Unit – refused first time after 3 weeks in post – had to go to provide relief cover after 5 weeks in post and was 'petrified' and finally had to spend a couple of hours there to be used as 'pair of hands' for post CS monitoring at 8 weeks. Feels Labour Suite should be the first rotation for NQMs' (PEs133) (Annex 5.5 p.26)

It is worth noting that those completing the shortened programme were confident in managing their workload in ante/post natal care and recognised that their previous experience as a nurse was very helpful in this respect, however, their confidence in other areas of maternity care appeared the same as those completing the three year programme (see also PEs133 above quote).

'I was happier dealing with post natal from nursing experience – had to push myself to do antenatal – no experience of inductions' (PEs193) (Annex 5.5 p.26)

'Labour suite was a 'baptism of fire ', otherwise was confident about providing care.' (PEs122) (Annex 5.5 p.27)

Diary entries did provide evidence of development of positive feelings over time with a concurrent acknowledgement of the impact of their midwifery education

'My training was everything that is what got me where I am so it's 100%, it's made me feel confident that I can do the job. I love the job.' (PE17) (Annex 5.5 p.27)

'Things are becoming more automatic which is so lovely; it makes me feel quite grown up now!'(PE94) (Annex 5.5 p.27)

Finally, findings from the joint interviews acknowledge the fact that however well prepared student midwives are through their pre-registration programme, newly qualified midwives cannot be totally prepared for the transition to qualified midwife and the responsibilities that entails. What both newly qualified midwives and preceptor noted were the differences in how much mentors could 'let-go' and allow their student to practise with minimal supervision. This they felt was easier if there was continuity of mentor. One of the preceptors questioned the advisability of students moving to a new unit in their final year as this limited opportunities for them to be allowed to do as much on their own (Annex 5.5 p.61).

'...in my third year she did as much as possible to prepare me for being a qualified midwife...she gave me quite a long rein...' (NQMI3/PE44)

'...if you don't get that opportunity to be doing care, doing your notes, planning care, that decision making, if you don't get the opportunity to do the whole job on your own, it can come as a big shock when you're newly qualified...I always thought it was a very strange time to change (third year)...when you should be getting to grips with working independently...if you are going to change (sites), change after the first year...'(PreI3/PE45)

Discussion

It has been recognised that the transition from student to midwife can be associated with a drop in confidence (Fraser et al. 1998, 2000a). According to Roxburgh et al (2010) this 'transition' phenomenon has been reconceptualised as work readiness. Medical education has long recognised the need for a longer period of transition with qualified medical staff undertaking training posts for up to two years post qualification (DoH 2007). In the recent Department of Health report *A High Quality Workforce* (DH, 2008), NMC recommendations for preceptor support for newly qualified staff are reiterated and reinforced.

'the confidence of midwives to practise competently on qualification will need to be built up during a foundation year' (DoH 2008; 19).

The most frequent description provided of a newly qualified midwife's feelings during role transition in this study concerns self-confidence in dealing with work content and work load (see 3.3.1 and Annex 5.5). According to Davies and Mason (2009) there is now a considerable body of evidence (e.g. Kings Fund, 2008; Healthcare Commission, 2008) indicating that the most important aspect of safe maternity care is good multidisciplinary teamwork (valuing the contribution of each member) and robust support mechanisms. The evidence from this study indicates that the most significant support comes from midwifery colleagues and senior members of the maternity care team. It is worth

pointing out that these experiences contrast strongly with those described by Kirkham (1999) and poses the question as to whether there has been a change in the culture of support within midwifery services over the past decade.

Guidelines from the NMC (2006) indicate that new registrants should have protected learning time in their first year of qualified practice, as well as regular meetings with a preceptor. Hobbs and Green (2003) in their study of preceptorship noted a positive effect on the newly qualified midwives' professional confidence, perceptions of support and self development. However, evidence from the diaries indicates that 'ad hoc' preceptorship, and lack of contact with their SoM, raises questions about the significance of continued supervision for newly qualified midwives during their first six months to a year in employment. According to Davies and Mason (2009), anecdotal evidence from the UK seems to suggest that there are pockets of good practice in preceptorship with structured rotation, study time and a sign-off process. They go on to argue that a tightened budget for the NHS (Appleby, 2009) means that preceptorship could move lower down the list of priorities unless there is a concerted effort to implement it systematically.

Furthermore, evidence on newly qualified midwives lack of contact with their SoM is of concern. This statutory method of supervision of all registered midwives (Rule 12 of Midwife Rules and Standards – NMC 2004, amended 2010) is essential for public protection. Bacon (2010) argues for an increased involvement of SoMs in midwifery education. She argues that this involvement is needed at a strategic and an operational level, and it includes allocation of students to a SoM for the duration of their pre-registration programme. Bacon also refers to the need for SoMs to provide support and guidance to mentors who are working in a target driven environment where avoidance of risk dominates practice (Lankshear et al, 2005). These arguments are supported by the evidence from the diaries, where newly qualified midwives referred to their inability as senior students to practise skills and decision making because of placement rules or mentor protective activities. The NMC publication *Modern Supervision in Action* (NMC, 2008a) highlights the potential relationship between supervisors of midwives and students. Evidence from the diaries indicated that having this experience, already available to some midwifery students in the UK, would provide an additional level of support to newly qualified midwives during their transition period. According to Bacon (2010 p316):

'Supervisors of midwives must ensure that statutory supervision becomes a meaningful, lived concept for the student midwife. It will enable her to engage with supervision in practice and it is hoped will contribute towards a seamless

transition into a mutually respectful relationship when the student becomes a practising midwife'.

The diaries kept by the newly qualified midwives offer a rich pattern of reflection on the process of transition to a registered practitioner, their insights and contemplations on progression to becoming safe, confident and self sufficient practitioners call into question whether there is a clear demarcation point in becoming fit to practise as a registered midwife (Butler et al 2008). Deciding when these 'transition experiences' begin and end is less important than ensuring that there are joined up processes of supervision between AEs and employers. In helping students to negotiate these transition processes, the midwife teacher has an important role in ensuring that newly qualified midwives have the basic knowledge and skills to use supervision of practice constructively in a recognised and timed transition period to become confident midwives who can provide quality care to women and their families.

CHAPTER FOUR: CONCLUSIONS

The final chapter of the report draws together the project's findings to present them as key conclusions and areas where further research might be appropriate. The evidence from the Annexes and in the literature demonstrate that SSRs are not directly linked to the quality of outputs in education programmes and hence resourcing and ratios are discussed first (4.1). The findings from the study point to the need for alternative indicators of the resources required to ensure midwifery education is effective in preparing student midwives to meet the needs and expectations of childbearing women and their families. Resource indicators to help ensure the quality of midwifery education are therefore provided in section 4.3. These indicators may have implications for the future organisation and delivery of midwifery education.

4.1 Staff student ratios and resourcing

There are no current guidelines issued by the NMC regarding staff student ratios for midwifery programmes, although an ENB criterion published in 1993 for the approval of midwifery programmes had indicated a required 1:10 SSR ratio. Despite the fact that this criterion is no longer used by the NMC in programme approval, it is apparent that it is still being used as a benchmark for resourcing midwifery programmes at School level (Annexe 5.2 pp17-19). The average used by the case study LMEs was 1:12 which was felt by some to be just about acceptable to deliver their current programmes.

Staff student ratios would, at first sight, appear to be a simple and robust means to provide evidence for the specialist staff resources available to support a midwifery programme. It is clear that LMEs feel pressure to justify the staffing levels needed to deliver smaller professional education programmes, this would seem to be all the more pressing in the context of the growth of interprofessional learning and the consequent risks to retaining specialist expertise (Annexe 5.2. p17). It also reflects the requirements for midwives to meet the expectation of spending approximately 20% of their normal teaching hours supporting student learning in practice (NMC 2009) and being able to notify their intention to practise to their named supervisor of midwives on an annual basis (NMC 2004).

However, constructing SSR data is not straightforward. Early studies of the value of SSRs carried out soon after the introduction of the ENB criterion (Proctor et al 1994, and Murray et al 1995) indicated that the methods for calculating SSR were not standardised and lacked reliability. The data provided by the LMEs presented in Annexe 5.2, Table 2 on pp16-7 certainly suggest that the methods for calculating SSRs vary widely.

Other early evidence regarding the introduction of SSRs drew attention to a further concern about their use as a criterion for the sufficiency of resources to deliver a professional education programme. It was thought that they could militate against flexibility, creativity and innovation in curricula by restricting education to a particular funding model, while not supporting quality education (Murray et al 1995). The evidence from the LMEs and midwife teachers presented in Annexes 5.2 and 5.3 confirm the view that simple SSR input measures mask more subtle differences in the workload demands that arise from different organisation models and methods of learning. It was recognised that the midwifery programmes varied greatly in the proportion of small group midwifery led teaching, policies on support for practice based learning, number of education centres, and the number of clinical placement learning sites and their geographical spread. All these factors make meaningful use of SSRs as benchmark indicators of sufficiency of resources difficult to sustain (Annexe 5.2 p15-21). Furthermore, the evidence from the LMEs and the midwife teachers (Annexes 5.2 p22 and 5.3 p47-48) highlights the importance of having a spread of specialist expertise in order to resource the curriculum appropriately, which includes having sufficient distinctions in midwife teachers' roles to support intensive practice learning, classroom teaching, personal student support, course administration as well as contributing to research and knowledge transfer outputs demanded by universities.

A recent review of the evidence for the use of SSRs in midwifery education concluded that there is no direct evidence that links a particular SSR with the quality of midwifery programme (Maben et al 2007). They go on to note that it is highly unusual, but not entirely unknown, for other professional bodies to set a guideline SSR for training institutions. Indeed, the last decade has seen a decisive move away from the use of simple input measures in constructing quality indicators in higher education, such as SSRs or specification of required hours of learning. Education quality is more likely to be assessed through the use of a matrix of indicators, with key performance indicators focusing on processes such as admission standards (including widening participation in HE), student retention, responding to equality and diversity, and outcomes such as levels of student attainment, employment statistics and student satisfaction. These measures are further elaborated in professional education by assurances regarding a graduate's safety in practice, competence and good character. In the context of this matrix of process and outcome indicators, a simple measure of staffing resource expressed as an SSR lacks both justification and relevance. Even the use of SSR as a benchmark for comparison would fail to accommodate the diversity of organisation, models of learning, and geography of midwifery education providers.

The evidence from the Annexes suggests that, in considering the resources required for the delivery of midwifery programmes, there needs to be recognition of the wide range of contributions that midwife teachers make to high quality midwifery education. Detailed descriptions are given, from a variety of perspectives, of the roles that midwife teachers play in preparing and supporting mentors and helping students to achieve confidence, acquire clinical competence, and support student learning particularly in applying the more abstract aspects of learning to midwifery practice.

A key determinant of the quality of the midwifery education, although difficult to quantify, was attributed to the 'credibility' of midwife teachers. There was sufficient evidence to draw the conclusion that, from the student and newly qualified midwife's perspective, an important aspect of midwife teachers' credibility was linked to their visibility in clinical areas: visiting and having detailed knowledge of clinical areas, supporting tripartite assessment, working with students in practice, supporting mentors, able to apply abstract ideas in clinical problems solving, organising 'skills drills'. Of course, from a university perspective credibility is also assessed through scholarship outputs and student evaluation. Drawing together the evidence from midwife teachers, students, LMEs and the newly qualified midwives, it allows a range of quality indicators to be proposed that, taken in conjunction with the NMC Standards for Pre-Registration Midwifery Education (2009), reflect the ability of a midwifery education programme to produce midwives that are safe, competent and confident to meet the needs of women and their families.

In conclusion, the scoping report by Maben et al (2007) found that there is no direct evidence that SSRs are linked with the quality of outputs of midwifery education programmes. Although there remains some support for their use as an indicator of resources available for the delivery of midwifery programmes, there is little justification for their continued application in the context of the matrix of process and output indicators which are prevalent in higher education, especially in the face of such variety of curriculum and organisation models for midwifery education. Consequently, a series of quality indicators that entail resource commitments are proposed. These indicators are based on evidence of midwife teachers' role in delivering education that prepares newly qualified midwives to meet the needs of women and their families.

4.2 Key Conclusions

These conclusions include those where evidence was strong and supported or implied by a majority of respondents in the two key groups: the providers and the recipients of the pre-registration midwifery education programmes. They are presented under two main

headings, the models for programme delivery and the contributions of midwife teachers in delivering and developing the programmes.

4.2.1 Curriculum design and implementation

Students valued having an appropriate depth and application of subject knowledge to midwifery practice. This was best achieved by midwife teachers undertaking most of this teaching with the addition of subject experts as appropriate. Interactive interprofessional learning was valued but not large groups of students taught together in lectures. Theory programmed to integrate with practice placements was not always possible and hence reflection sessions helped, as early exposure to practice was still viewed as essential. Placements in the maternity services need to be of sufficient length and variety to enable students to feel competent, and assessment to be reliable. The need for dexterity in skills and knowledge of roles in emergency scenarios makes simulation sessions in the university essential, especially when busy maternity services meant mentors' time to teach could be limited. Opportunities for students to 'be a midwife' through managing a case load on both the wards and through providing continuity of caregiver are helpful in the transition from student to midwife. The reality of the transition from student to midwife was well summed up by one newly qualified midwife realising that she was now practising under her own 'PIN' not that of her mentor.

The following points have emerged as principles of good quality midwifery education, some of which support those highlighted in other studies and the NMC standards guidance (NMC 2009).

1. Early practice placements, then placements in a variety of maternity services and of sufficient length to enable newly qualified midwives to be able to work both in midwife led and large consultant maternity units. (3.1.5)
2. Student midwives are given adequate time to practise clinical skills in a simulated, safe learning environment. (3.1.3, 3.2.1)
3. The two different models of caseload holding are identified and both are embedded into the programmes. (3.1.4)
4. Timetabling of AEI based teaching to be agreed with the midwife teacher team so that shared learning, if any, is delivered at an appropriate time for students to progress through the programme. (3.1.1)
5. An emphasis on the importance of integrating practice and theory through timetabling sessions for reflection and discussion of scenarios encountered in practice. (3.1, 3.1.5)

6. Review the balance of timetabled theory sessions to maintain the emphasis on normality but ensure sufficient biological sciences and subjects related to the complexity of maternity care are addressed at relevant points to enable students to participate in care of mothers and babies who have complicated medical and obstetric needs. (3.1, 3.1.5)
7. Midwife teachers design, plan and teach the curriculum, retaining and developing core midwifery knowledge as well as drawing upon other specialists as appropriate who can apply their expertise to maternity care contexts. (3.2.1)
8. Interprofessional learning is delivered using interactive small group teaching methods and students included where possible in interprofessional OSCEs (or equivalent) in practice or the AEI. Future evaluations of the impact of OSCEs on eventual competence of midwives would be useful. (3.1.1, 3.1.3)
9. Teaching strategies are included that develop students' interpersonal and cognitive capabilities, such as those developed through EBL or PBL, but where these techniques are used, teachers have expertise in facilitation skills to enable every student to have a satisfactory learning experience. (3.1.2, 3.2.1)
10. Innovative learning technologies need to be exploited to maximise student learning and reduce travel between practice and AEI sites. (3.1.6)

4.2.2 Contribution of Midwife Teachers

Teachers were valued for their subject knowledge, use of best evidence and research in their teaching and their unique and crucial role in supporting the application of knowledge to midwifery practice. Credibility to teach and facilitate learning, whether in the university or practice setting, was essential and demonstrates the need for the whole team of teachers to agree core roles and priorities and determine where individual specialism is necessary. Students were particularly appreciative of the contribution made by those teachers who demonstrated their contemporary understanding of the realities of working in the current maternity services. As well as providing most of their classroom based teaching, midwife teachers also provided students with comprehensive skills and emergency drills teaching sessions in the university and this they thought had a direct impact on confidence.

Teachers were expected to engage in good communications with managers and mentors in the practice environment and to be highly visible in practice. Visibility of midwife teachers in practice was also recognised as having an impact on the confidence of students in being able to put their learning into practice. Where the team of teachers includes a Supervisor of Midwives this enhances communication. Many teachers believed they should have a 'hands on' practice role to maintain their clinical credibility but finding

time to be immersed sufficiently in practice was often difficult. Mentors and students agreed that teachers should work with students in practice as it gave value in terms of developing knowledge and enhancing confidence in responding to a wide range of practice scenarios. Mentors found it essential to have regular discussions with teachers and their students about the student's progress and achievement. Tripartite meetings as a mandatory part of the practice learning and assessment strategy were valued by both mentors and students.

Students particularly valued the teacher's role as personal tutor and would like this to be the same person who linked with their practice placement mentor. Where this was not possible then the expectation was for the roles of those involved to be clear and for all parties to communicate effectively. When mentors had concerns about a student's progress, competence or behaviour, the mentors found the support of teachers essential. They welcomed the teacher working with the student when this was the case and supporting them in drawing up and reviewing action plans. The effectiveness of teachers in supporting students academically and pastorally is important for students but lack of availability of teachers was sometimes of concern.

Midwife teachers have a responsibility to be involved in the development and dissemination of new knowledge. It is a university expectation and a professional responsibility to improve and safeguard practice through advancing knowledge. Midwife teachers teach and assess the majority of the pre-registration midwifery curriculum which leaves little time for many of them to develop subject expertise and innovative learning technologies. Time for teachers to spend in personal and professional development was limited, especially where the team of teachers was small, and very few midwife teachers could be released to be research active.

The following summarises some of the most important aspects emerging from the MINT project for the delivery of effective pre-registration midwifery programmes:

1. There needs to be a sufficient critical mass of midwife teachers to develop expertise through research or scholarly work and allow the opportunity to maintain practice credibility. An individual midwife teacher should not be expected to teach across the whole curriculum. (3.2.1, 3.2.2, 3.2.3, 4.1)
2. The team of teachers needs to have sufficient staff with the academic, practice and education expertise to facilitate/teach the vast majority of the curriculum and its application. (3.1.6, 3.2.1, 3.3, 4.1)

3. The roles of programme lead, module lead, personal tutor and link lecturer need to be clarified for staff and students and the ways in which each contributes to the midwifery programme. *(3.2.1, 3.2.2, 3.2.3)*
4. Midwife teachers should provide enough skills teaching sessions in the simulated learning environment to give every student the opportunity for sufficient practise in frequently needed core skills and in emergency scenarios. *(3.1.3, 3.2.1, 3.3, 4.1)*
5. Time for link lecturers to have a visible presence in clinical practice and for LMEs to carry out their strategic and quality monitoring role need to be built into calculations for determining the teacher resource. *(3.2, 3.2.3)*
6. A key role of link lecturers is the support of mentors as well as students and to monitor the assessment process. This will require tripartite meetings in at least each assessment period and when appropriate for teachers to work with students in practice. *(3.2.2, 3.2.3, 3.3)*
7. A core of teachers need to be aware of the realities of working in the local maternity services to anticipate student needs and monitor whether they are obtaining the necessary learning opportunities to cope with the transition from student to midwife. *(3.2.1, 3.2.2, 3.2.3, 3.3)*
8. It would be of value for teachers to monitor how effective their curriculum is in relation to students developing management and prioritisation skills, caring for women with complications and complex social and medical problems and babies with special needs. *(3.3)*
9. At least one member of the team of teachers who is a Supervisor of Midwives brings a resource value and could enhance students' understanding of supervision. *(3.2.4)*
10. Clinical and academic credibility of each teacher is essential but the emphasis for each member of the team will be different. This needs to be agreed and respected by the whole team and practice time valued equally with university based activities. *(3.2.1, 3.2.3)*
11. A core of midwife teachers needs to be enabled to be research active for the progression of theory to underpin practice in the UK, to lead and participate in multi-professional research projects for service improvement and to support the growing number of midwives undertaking higher degrees. *(3.2.1)*

4.3 Resource Indicators for Quality of Midwifery Education

The findings of this study clearly demonstrate that given the complexity of midwifery education, individual midwife teachers cannot be responsible for the delivery of all aspects of the pre-registration midwifery programme. While all midwife teachers should have credibility in relation to the core role of the midwife (Midwifery 2020 UK Programme, 2010), our recommendation is that resource quality indicators should reflect

a team approach in ensuring the effectiveness of these programmes. This requires a sufficient critical mass in each AEI to support specialisation and enable the differentiation of midwife teacher roles to deliver the pre-registration midwifery curriculum.

4.3.1 Evidence that the midwife teacher team is clinically and academically credible.

- The AEI has staff development policies that show midwife teachers are encouraged to develop areas of clinical and academic expertise and opportunities to develop areas of expert practice.
- Midwife teachers can demonstrate that they can apply knowledge to the realities of current practice in the maternity services.
- Midwife teachers have the opportunity to contribute to the development of new knowledge, innovation and evaluation both in the NHS as well as in the AEI.
- Managers can demonstrate that different areas of activity are equally valued within the team.
- Policies exist to manage appropriate allocation of activity.
- Midwife teachers who deliver curriculum content should be able to demonstrate appropriate specialist expertise and skills.
- Balance and timing of normality and complexity of childbearing in the university and practice based curriculum is monitored; teaching and allocation to practice learning should reflect the variety of midwifery practice.
- Formal opportunities for structured reflection facilitated by midwife teachers are scheduled in the curriculum timetable.
- Where there is shared learning there must be evidence that it is reviewed by midwife teachers for relevance and application and when delivered is supported by midwife teachers.
- Interprofessional learning should be focused on practice learning scenarios that include midwife teachers as part of the facilitation team.
- Where teachers are prepared to be Supervisors of Midwives, the AEI should recognise their value by enabling them to carry out their role as SoM within their employment hours.
- The midwife teacher team takes responsibility/works in partnership with mentors in preparing students for the transition to the realities of a newly qualified midwife's workload. In particular that there is evidence of developing skills in: prioritisation; decision making; confidence for autonomous practice; providing all the care for the caseload of women allocated to them, including record keeping (and ensuring countersignatures).

4.3.2 Evidence that the midwife teacher team has an understanding/knowledge of the practice areas that students are allocated to. The strength of the link is essential irrespective of the geographical distance.

- Midwife teachers are provided with an honorary contract, or appropriate placement agreement, with their 'link' practice site to provide them with indemnity when they participate in 'hands on' midwifery care and for all teachers who will make visits to the NHS sites where students are placed.
- Midwife teachers work with managers and mentors to actively monitor the quality of support provided by mentors.
- Midwife teachers work with mentors to maximise learning opportunities in clinical practice.

4.3.3 Evidence that midwife teachers are 'highly visible' and easily accessible in all the main student practice placement sites. Where placements are more remote or used for short placement experiences there should be evidence of the use of appropriate technology to maintain good communications.

- Service staff and students are aware of and know how to contact midwife teachers and understand the role of the midwife teacher who links with the practice area.
- There is evidence of regular and formal communication between mentors and link midwife teacher and feedback to the student's personal tutor as necessary.
- AEs and service colleagues should agree a minimum number of visits or contacts a month/year for all practice learning sites.

4.3.4 Evidence of midwife teachers' involvement in monitoring practice assessment of student competence and mentor consistency through tripartite discussions (mentor, student, midwife teacher).

- Midwife teachers are involved in the preparation, on-going support and quality monitoring of midwife mentors
- Tripartite meetings take place at least once in each progression period for every student.
- Tripartite meetings take place more frequently if there are concerns about student progress, professional behaviour or the student/mentor relationship.

4.3.5 Evidence that all students have opportunities to learn and practise 'core' clinical skills and emergency drills in a safe, simulated environment under supervision of and co-ordinated by a midwife teacher.

- Midwife teachers enable all students to practise 'core' skills sufficiently to develop the necessary dexterity to build on this learning in their practice placements.
- Midwife teachers teach or draw upon others with contemporary expertise in emergency obstetric and neonatal drills to provide students with practice in scenarios they are likely to encounter as newly qualified midwives.

4.3.6 Evidence that all students have a personal tutor who is a midwife teacher and who can monitor their professional and academic progress and development.

- Evidence that the role of the personal tutor is made clear by the AEI and that students understand the role and responsibilities of the personal tutor.
- The personal tutor and student meet regularly (at least once in each progression period).
- The personal tutor is not necessarily the midwife teacher who contributes to the tripartite discussions – where it is not the personal tutor then there must be evidence of effective communication between the personal tutor and the link lecturer
- Students are aware of how to access their personal tutor and there is evidence that they receive a timely response and know who to access if they have an urgent situation and their personal tutor is not available.

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ANNEXES

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Annex 5.3	Midwife Teachers to Pre-Registration Midwifery Programmes	81 Pages
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