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Is the incorporation of the newborn examination in the pre-registration curriculum acceptable in clinical practice? A qualitative study.

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Abstract

The objectives of this qualitative study were to describe the experiences of currently practicing newborn examiner midwives who had accessed their training post registration; explore their views on the inclusion of newborn examination in the pre-registration curriculum and invite them to identify strategies to achieve practical implementation of the inclusion of the newborn examination in pre-registration in the practice setting. Data were collected through semi-structured interviews and analysed using Thematic Analysis with an inductive approach. Three main themes were identified; experiences of the role, views of the newborn examination being incorporated into the pre-registration midwifery curriculum and practical considerations. The findings from this study show that currently practicing newborn examiner midwives accept the need for inclusion of the newborn examination in pre-registration midwifery education in order to sustain the best service for mothers and babies. The findings also indicate a need for ongoing interprofessional learning, support and investment to maximise efficiency of the service.

Keywords

Newborn examination

Midwifery

Education

Pre-registration

Introduction and Background

The newborn examination is a routine physical examination of the newborn, offered by the National Health Service (NHS) to every baby born in the United Kingdom (UK). It is similar in content and nature to that which is carried out in Australia, New Zealand and the United States of America (USA) (American Academy of Pediatrics, 2015; Royal Australasian College of Physicians, 2009). In the UK this examination includes the Newborn and Infant Physical Examination (NIPE) a UK Government screening programme, which focuses on four elements, the heart, hips, eyes and testes, looking particularly for conditions that have a hereditary component. In the UK it is recommended that this examination be carried out within the first 72 hours of life (Public Health England (PHE), 2018).

Historically in the UK only doctors performed the newborn examination. However, changes to working practices and several reports published by the Department of Health (DH) in the UK recommending the expansion of the midwife's role (Great Britain DH, 1993; Great Britain DH, 1999) led to the provision of post registration university accredited modules in newborn examination for midwives and other suitable health care professionals. A similar situation exists in Australia; although solely a doctor's role in the past, today the newborn examination may be performed by other appropriately trained health care professionals (PHE, 2018; Royal Australasian College of Physicians, 2009).

Nurses and midwives have undertaken post-registration courses in newborn examination over the last 20 years and researchers have subsequently evaluated

the competence of practitioners from different professional backgrounds in undertaking the examination (Townsend *et al.*, 2004). In particular, the study by Townsend *et al.*, (2004) identified that appropriately trained midwives were indeed competent in newborn examination, they enhanced family care by adding public health advice, increased maternal satisfaction by providing continuity and brought significant cost savings. Moreover, midwives reported increased satisfaction in their role when able to deliver complete low risk postnatal care without referral (Townsend *et al.,* 2004).

Many publications in the UK supported the promotion of the midwife in the role of newborn examiner (Chief Nursing Officers of England, Northern Ireland, Scotland and Wales, 2010; NHS England, 2016), however there has been criticism that in the past, a lack of guidance or funding support has contributed to an inability to make this a reality (Jones, 2014). Despite the availability of post registration courses, many midwives failed to maintain their practice as newborn examiners so did not contribute to a change in service provision (Hayes *et al.* 2003; Steele 2007). Qualitative studies identified that this was partly due to a negative attitude towards midwives taking on the role without additional remuneration (Steele, 2007), also some midwives reported being overburdened and unable to cope with workload pressures (Hayes *et al.,* 2003). The steady increase in the number of newborn examiners within the midwifery profession that was anticipated has therefore not occurred.

Due to the increase in birth rate (Office for National Statistics, 2013) alongside the continued shortage of midwifery staff (Tolofari, 2014) there is a deficit in midwifery newborn examiners (Steele, 2007). In some areas of the UK, the solution to

insufficient numbers of newborn examiners within the midwifery workforce was to include newborn examination in the pre-registration curriculum thus ensuring a sustainable workforce that could deliver all aspects of care required by the service (Yearley *et al*., 2017). This is not currently a regulatory requirement (Nursing and Midwifery Council (NMC), 2009).

Yearley *et al.* (2017) surveyed approved midwifery education providers and received responses from 40 of the total 58 Approved Educational Institutions (AEI) in the UK; of those ten (25%) included the newborn examination in the curriculum. There were many variances in how each AEI had incorporated the newborn examination skills into their curriculum with two implementing a staged approach including the theoretical component in the pre-registration curriculum and completion of the practical component following registration (Yearley *et al*., 2017); this was the model in the local Trust where this study was carried out. The other eight AEIs who responded included both the practical and the theoretical components in the pre-registration curriculum and this had the benefit of closely linking theory to practice whilst also producing challenges including providing sufficient mentors for the pre-registration students (Yearley *et al*., 2017). The models of delivery that did include the practical component had many other variants such as number of examinations required and their assessment (Yearley *et al*., 2017). It is important at this early stage to aim to reduce these variations and find solutions to the current situation in the UK whereby many NHS Trusts are expected to provide a midwifery led newborn examination service in line with public health recommendations (NHS England, 2014) and an ethos of continuity of care for families (National Maternity Review, 2016) with a workforce that is insufficient to meet this need.

The aim of this study was therefore to explore the views of currently practicing newborn examiner midwives, on the inclusion of education regarding the newborn examination in the pre-registration midwifery curriculum.

This study was carried out with the intention of providing evidence for Higher Education Institutions (HEI) and the NMC as pre-registration standards are currently being reviewed for the future. Compiling the experience and views of currently practicing midwifery newborn examiners (who had completed a post registration accredited module) could add to current knowledge and inform decisions regarding the inclusion of the newborn examination in the forthcoming pre-registration midwifery curriculum and standards.

The objectives of this study were therefore:

1. To describe the experiences of currently practicing newborn examiner midwives
2. To state their views regarding inclusion of the newborn examination in the pre-registration midwifery curriculum, and
3. To identify potential strategies to achieve practical implementation of the inclusion of the newborn examination in pre-registration in the practice setting.

Methods

A qualitative descriptive approach to this study was chosen for its ability to represent participants' feelings, attitudes and concerns about the inclusion of newborn examination into pre-registration midwifery in a straightforward manner (Sandelowski, 2000). 'Fundamental qualitative description' as described by Sandelowski (2000, p.335) is an appropriate method to answer specific practice based questions clearly, the word fundamental here is merely used to delineate it

from other types of qualitative description such as phenomenology or grounded theory, it is not meant to infer a ranking of methodology.

Data were collected through semi-structured interviews and thematic analysis (Braun and Clark, 2006) was used to analyse the data in an inductive manner. Themes that emerged gave a representative understanding of the participants views participants.

This research proposal gained ethical approval from the University Research Ethics Committee (UREC), the Research and Development department in the chosen hospital trust and the UK Health Research Authority before commencement.

Participants and recruitment

This study used a convenience sample. Participants were qualified midwives who had achieved the newborn examination skills through a post registration approved module and were currently practising as a newborn examiner. Participants were required to have this knowledge and experience in order to address the questions asked in the study.

A manager in the Trust held a register of newborn examiner midwives and all those eligible were initially emailed by the Trust rather than the researcher due to confidentiality requirements. The email from the manager explained the purpose of the study and offered an opportunity to take part. Those interested in taking part then emailed the researcher. The response rate was 29%, with 7 out of a possible 24 potential participants volunteering to take part.

The study was carried out between February and April 2017 in an NHS Trust in the south of England with a birth rate of 3650 per annum.

Data collection

The semi-structured interviews were conducted face to face by the researcher and ranged from 20-40 minutes in duration. A topic guide (Table 1) was used and this enabled the collection of data that reflected participants' feelings and opinions (Polgar and Thomas, 2008). All of the interviews took place in the chosen hospital Trust in a private room at the convenience of the participants. All participants were asked to sign a consent form prior to commencing the interview and their understanding of their rights was verified, after which the interviews were digitally recorded. In order to comply with the law on issues of personal data this research activity complied with the requirements of the Data Protection Act (1998) and the Freedom of Information Act (2000).

Data analysis

The recorded data was reviewed and transcribed by hand. Although there are technological tools that simplify this process, repeated exposure to the data is useful in capturing nuances and detail that were not evident initially (Braun and Clarke, 2006). Punctuation was used during transcribing to convey meaning and expression to enhance authenticity of the findings by translating sentiment attached to the words spoken by participants (Cope, 2014).

The first author coded the data manually by repeated reading of the transcripts. Analysis was data driven and as initial codes became familiar, similarities and differences between opinions during transcription were noted (Pope *et al.,* 2000). All data was then independently coded by the second author; the two authors then discussed these codes and organised them into an agreed set of three clear themes that honestly represented the data collected. These codes were then presented as a map, defined, named and used to produce the data report (Braun and Clark, 2006).

Findings

The findings are described under the three themes which emerged from analysis of the data. The data from interviews are randomly labelled with numbers to ensure confidentiality of the participants. The topic guide is illustrated in Table 1.

Theme 1. Experiences of the role

There was a clear response from all midwives interviewed that embracing this role was positive for both patients and staff. They valued being able to give continuity of care to women and they found the role satisfying.

Interview 4

"There's a great call for more [newborn] checkers, it's a good part of continuation of your care so it's rewarding as a midwife and its rewarding for the women."

The participants saw the newborn as the centre of a wider family picture and this episode of interaction with the woman and her partner as an opportunity for education and information giving. The midwives emphasised the involvement of the woman as a partner in her care.

Interview 3

"You have a much wider knowledge, this isn't a baby you are coming to check, this is a baby within a family that you are coming to check and I think that's very different."

In addition they considered the newborn examination an entirely appropriate role for their profession, referring to the midwife's role of caring for the mother and baby

within ‘normal’ parameters and referring to the appropriate healthcare professional when required.

Interview 2

"I just think it is an appropriate skill for a midwife to do because I think we do it in a more sensitive way and I often get feedback from women saying it is quite different to previous experiences of newborn examination.”

Interview 3

"We do refer on and that is completely appropriate that if we are unsure …. we would refer on but that's what we do as midwives anyway we specialise in the normal and refer on when it's not normal so this is just a natural progression."

Many of those interviewed had been mentored themselves by doctors when they were training and they could clearly see a difference in approach between the two professions, with the midwives putting a lot of emphasis on effective communication with the patient and family and the doctors being more task focussed. This illustrated a difference in professional culture between the two professions.

Interview 3

“He was very much 'I am a doctor, I am going to do your baby check, your baby check is fine!' And off he went, whereas I like to explain each step …., why I am doing it, why it is significant, which just seems what I would want if I was that parent”

Those interviewed were aware of their responsibility to maintain their competence in newborn examination and were keen for the Trust to facilitate this. There had been compulsory annual updates in the past, which were run on an interprofessional basis

including all professions involved in newborn examinations. These no longer occurred and this interprofessional learning was missed.

Interview 5

"I mean that [compulsory annual updates] *was very useful …. it was open to GPs and neonatal examiners and everyone really so you had a nice mix across the board"*

"Probably what would be good would be to have sort of sessions maybe where they could meet up and talk to us, people who have trained…about the problems they've encountered.....…so I think probably some group sessions with everybody would be quite useful"

Theme 2. Views regarding the inclusion of the newborn examination in pre-registration curricula

All midwives interviewed were positive about the pre-registration midwives learning the skills of the newborn examination; the advantages were that it would benefit the service.

Interview 5

"I think it is very positive, we don't have enough midwives to run the service."

It would also benefit the women.

Interview 2

"If you've got more midwives on the ward who could [do the newborn] check then potentially there is less delay for the women."

In addition, the participants felt that the students *should* aspire to achieve this skill.

Interview 6

"For them [newly qualified midwives] it is part of an ongoing learning cycle....it's definitely a good attribute to have in your portfolio and a good thing to do and you can give all round care to the woman."

There was also an awareness of the changing responsibilities within the midwifery profession and a positive vision of future possibilities.

Interview 3

"Surely a time will come when anyone can do the newborn examination?'

Although the midwives interviewed were positive, they were also aware of the challenges these students would face, they demonstrated insight gained from their own experience.

Some were concerned that newly qualified midwives would not have enough experience of the normal baby to adequately fulfil the newborn examiner role and would struggle with the responsibility.

Interview 2

"Doing the newborn examination just seems to be pressure, pressure, pressure and not enough experience really."

As experienced newborn examiners, the participants had suggestions concerning support for students. Momentum was seen as important both between the theory and practice elements of the skill and between each practice examination, a practical

suggestion to address this was for the student to be rostered to work whole shifts with a newborn examiner.

Interview 2

"Making sure that the actual module is done in a timely way so that you are able to do the practical fairly close to the theory."

Being afforded the time to learn was a common point of discussion during data collection. In the past the post registration students had found it difficult to co-ordinate with their mentors and had worked in their own time to achieve the practical elements of the course.

Interview 3

"I had to do a lot in my own time in order to complete."

In comparison, the participants felt that the pre-registration students would be advantaged by having midwifery mentors and staff support.

Interview 4

"The difference now to when I did it was when I did it you had to have a consultant, now you have a midwife who is qualified and experienced in doing the checks … so you have somebody there that you can go and draw on all the time; it's going to be very helpful for them."

Interview 6

"I think the fact you've given them the time to do it and given support from their matrons, support from us who's helping them to do it."

Theme 3. Practical considerations

A lack of readily available equipment, specifically ophthalmoscopes and neonatal stethoscopes, was identified as a challenge for students trying to complete their portfolio of neonatal examinations.

Interview 7

"The limitation of the ophthalmoscopes is definitely a big one"

There was awareness amongst midwives that by adopting this role midwives were contributing to financial savings for the NHS.

Interview 5

"I think if you look at the way the service is going....it's all about saving money at the end of the day."

In the short term it was envisaged that an increase in midwifery newborn examiners through the pre-registration training would improve the current service although it was also noted that this would bring with it challenges due to the need for mentoring of a large number of newborn examiner students.

Interview 5

"We just need more people to do it so it either goes that everyone can do her own [newborn examinations] *..... or you have more people on a rota that do it."*

Interview 2

"If we were expected to have somebody [a student] every single shift.....it means that our day then is much slower ….. you would be supervising and both are important, so that would be quite challenging."

There was also a vision of a future service where more midwives would have newborn examination skills and therefore the service would become more holistic for both mother and baby.

Interview 5

"Every midwife will be trained to check the baby and each midwife will be able to do the mum's postnatal check and the baby's postnatal check."

Discussion

Midwives experiences of the newborn examiner role

All participants had completed the newborn examination post registration module and had volunteered to gain this skill because they felt that it enhanced their role. The midwives expressed a strong sense of satisfaction from being able to carry out the newborn examiner role and complete a patient's care without need for referral to other professionals if all findings were within normal limits. These findings reflect earlier research which showed that midwives gain greater job satisfaction when they are able to complete all care required for a mother and baby dyad including the newborn examination. (Hempstock and Srabani, 2011).

This approach to care resonates with the vision set out in the National Maternity Review (NHS England, 2016) which places an emphasis on personalised care for each family and recommends continuity of carer to increase safety by increasing the likelihood of a positive relationship between midwives and patients.

All midwives are required to be competent to act as the lead carer in normal pregnancies to fulfil the 'Standards for competence for registered midwives' (NMC,

2014). The skill of newborn examination allows the midwife to more fully realise the role of lead carer in normal pregnancies throughout the childbirth continuum.

Differences were noted between the medical and midwifery professional cultures, this was largely due to the different healthcare philosophy adopted by the two professions. Despite this there was a strong desire for the maintenance of competence to have an interprofessional aspect. This is particularly relevant when considering that many different healthcare professionals are in a position to carry out the examination including health visitors and practice nurses for the 6-8 week appointment and neonatal nurses, advanced neonatal practitioners (ANNP) and midwives for the initial examination.

The benefits of interprofessional working have been expounded by many reports (Chief Nursing Officers of England, Northern Ireland, Scotland and Wales, 2010; NHS England, 2013; NMC, 2015; NHS England, 2016) and this has understandably led to suggestions that there may be benefits to interprofessional learning too. Clark (2006) theorises about interprofessional education (IPE) and suggests the social context of learning and the teamwork aspect of IPE is as important as the subject being learnt. Although each profession need to learn how to be autonomous practitioners, there is also a need to learn about collaborating and working effectively together. With improved team working and understanding of each other's roles quality of care for patients is improved (Lait *et al.,* 2011). Previous research recommended interprofessional updates and interprofessional forums where all professionals involved in the newborn examination could discuss cases, challenges and approach (Jones, 2014), the findings from this study support the view that interprofessional learning is valued by the newborn examiner midwives and seen as an essential component of maintaining competence.

Views regarding the inclusion of the newborn examination in pre-registration curricula

Whilst there were concerns that the addition of the newborn examination would add extra responsibility for the students, equally it was seen as an appropriate skill in line with the other responsibilities of becoming a qualified midwife. In relation to students possibly finding the role burdensome once qualified, previous research indicated a probationary period increased feelings of support and helped with retention of skills (Steele, 2007).

The participants felt that midwives who were learning newborn examination skills would be advantaged by having experienced midwifery newborn examiners as their mentors. The midwifery mentors would work similar shift patterns and be readily available for help and advice, in addition, there was pride in the newborn examination skill and midwives were keen to share what they had learnt. This study illustrates progression in the attitude of the newborn examiner midwives; in previous research, mentorship is often either solely by doctors or by a mixture of health care professionals (Hempstock and Srabani, 2011). In the local Trust, the practical experience would have been post qualification during preceptorship. The NMC strongly recommend a period of preceptorship for all new registrants, though there is no set period, this is generally between four months and one year (NMC, 2006). The aim of preceptorship is to provide support for the adjustment from student to full registrant, though content and amount of preceptorship vary across the UK (Black, 2018). Considering the range of preceptorship offered and the finding from this study that theory and practice should be closely related, the model of including both academic and practical components into the pre-registration curriculum is preferable.

Participants valued the holistic service that their newborn examination skills allowed them to deliver and were concerned about the sustainability of the service in its current form. All participants were positive about the inclusion of the newborn examination in the pre-registration curriculum as this change would allow for different models of service provision in the future and potentially could relieve the pressure on the minority currently providing the service.

In view of the variety of experience across the UK (Yearley *et al*., 2017; Rogers *et al*., 2017) clearer direction on a National level is needed confirming that newborn examination is part of the midwives role. A similar situation exists in Australia whereby the midwifery education standards do not specify the newborn examination as a skill required for accreditation (Australian Nursing and Midwifery Accreditation Council, (ANMAC) 2014), yet in many territories midwives who have been appropriately trained are the health care professional who carry out the newborn examination (Queensland Clinical Guidelines, 2014). In a recent National maternity review in Australia (Australian Government Department of Health, 2009) there were also similarities in recommendations concerning the public health role of the midwife, the need for interprofessional learning and the expansion of the midwives role to increase the continuity of care for women and babies. Therefore the findings of this study support previous research (Yearley *et al*., 2017) that the inclusion of the newborn examination in the NMC standards for pre-registration midwifery would be beneficial.

Practical considerations

The lack of available equipment for students wishing to carry out practice newborn examinations was limiting. This is not a new finding as it had been cited as a

contributing factor to midwives being unable to complete their newborn portfolio in Steele's study (2007). This is clearly unacceptable and needs resolution at a local level.

In line with the NHS Five Year Forward View (2014) the workforce required to deliver the newborn examination service should be effective and financially viable. It is gratifying therefore that the findings from this study showed awareness amongst midwives that their midwife led newborn examination service was making a positive financial contribution to their NHS Trust; however no cynicism was expressed concerning this. Previous research around role change in midwifery has shown that despite many demands on the midwifery service and the need for changes to maternity services delivery, midwives remain receptive to these changes particularly if they perceive them as benefitting the women and providing the most cohesive service (Lavender *et al.*, 2002). Although past research showed a variety of both positive and negative attitudes to the midwifery newborn examiner role (Lavender *et al.*, 2002); the findings from this study show a wholly positive attitude from the participants.

The midwives interviewed, had been mentored by doctors working different shift patterns and this had restricted opportunities to work together. Many midwives had resorted to working additional hours to achieve practice examinations. In relation to this, the participants advocated having a qualified newborn examiner midwife as a mentor. Challenges were acknowledged concerning the availability of midwifery newborn examiners to mentor students, this concern was voiced in previous research and was stated by some HEIs as the reason for being unable to include the newborn examination in the pre-registration curriculum (Yearley *et al.*, 2017).

Clearly, this is a short-term problem, as inclusion of the newborn examination into the pre-registration curriculum will increase numbers of midwifery newborn examiners in practice and relieve this pressure. One HEI mentioned in Yearley *et al.*'s (2017) survey had pre-empted this problem by preparing their team of Midwifery Lecturers in newborn examination so that they may support practice through the transition. This would improve safety and working conditions by relieving the pressure on a small workforce to provide all newborn examinations required. In the long term, it would facilitate a service provision that embodies the ethos of holistic care.

Strengths and limitations of the study

A strength of this study is the use of a rigorous and appropriate qualitative research method. The aim and objectives of the study have been met. Although small, the sample size was sufficient to reach saturation since no new findings emerged during the final two interviews. Findings may therefore be transferable to other NHS Trusts, depending on the structure of maternity services. Another strength was the use of two researchers to independently code the data, then subsequently discuss findings and identify themes through an iterative process.

A limitation of this study was that it was only carried out in one NHS Trust. Also, the student midwife voice is missing. It is acknowledged that the researcher was known to some of the participants as she worked in the same Trust and this may have introduced bias to the participants' answers. However, a reflexive journal was kept throughout, and all data was double coded to reduce bias in the analysis of data.

Reflexivity and an adherence to the constructs proposed by Guba and Lincoln (1985) of credibility, dependability, confirmability, transferability and authenticity add rigour to this study. The first author was aware she may have influenced this study. Firstly as a newborn examiner midwife she has a vested interest in the topic; secondly she is a professional who works clinically in the Trust where the study took place and was known to some of the participants as an educator. The interviews took place at the participants convenience, with their consent; the researcher used a topic guide to ensure parity between interviews and avoid leading questions. Understanding of views was verified to ensure a true reflection of the participants meaning. Adhering to the constructs above and using reflexivity throughout were vital components of ensuring a rigorous process was followed.

Implications and recommendations for policy and practice

The findings from this study show newborn examination trained midwives consider the inclusion of the newborn examination in pre-registration midwifery education to be an acceptable development. They perceive there to be benefits for midwives and for women who use the service. It is recognised internationally that regulated midwifery care as part of a wider multidisciplinary team has a positive effect on maternal and perinatal health (Hoope-Bender *et al*., 2014). The framework for quality maternal and newborn care (QMNC) developed by Renfrew *et al*. (2014) includes screening as an important component and makes worldwide recommendations concerning the public health role of the midwife, the need for interprofessional learning and the need to increase continuity of care for women and babies. These are echoed by the National maternity review in Australia (Australian Government Department of Health, 2009) and the National maternity review in England (NHS England, 2016).

Increasing the amount of newborn examiners by inclusion of both practical and academic components in the pre-registration curriculum will ensure continuity between theory and practice and ultimately increase the sustainability of midwife led newborn examination service provision therefore:

- Newborn examination should be included in the ‘Standards for pre-registration midwifery education’ (NMC, 2009) in order to ensure succession planning.

The findings from this study highlight the difficulties experienced with interprofessional mentoring yet illustrate an appetite for interprofessional learning and therefore our recommendations for practice are:

- Midwifery newborn examiner students should be assigned shifts alongside newborn examiner midwives and be mentored by them
- There should be provision for an interprofessional newborn examiners update that involves all professions who carry out the newborn examination
- All newly qualified newborn examiners should have a probationary period.

The findings from this study also indicate that the way the service is organised and the equipment available have a significant effect on efficiency and therefore our final recommendations for practice are:

- Priority must be given to provision of sufficient, appropriate equipment in Trusts where a midwife led newborn examination service is operating
- Service provision should be reviewed as numbers of newborn examiners expand in order to maximise efficiency of the service.

Following this study further qualitative research to explore the views of newly qualified midwives who have experienced pre-registration midwifery programmes that included the newborn examination would be beneficial.

Conclusion

The findings of this study show that experienced newborn examiner midwives welcome the inclusion of newborn examination in the pre-registration curriculum. They view newborn examination as part of their midwifery role, therefore an acceptable and an appropriate addition to the ‘Standards for pre-registration midwifery education’ (NMC, 2009). This addition will also maintain the sustainability of a midwife led newborn examination service.

References

American Academy of Pediatrics (2015) *Policy statement; Hospital stay for healthy term newborn infants.* Available at: http://pediatrics.aappublications.org/content/135/5/948.full (Accessed: 05/06/18)

Australian Government Department of Health, 2009, 'Improving Maternity Services in Australia. The Report of the Maternity Services Review,' Available at: https://www.health.gov.au/internet/main/publishing.nsf/content/624EF4BED503DB5BCA257BF0001DC83C/$File/Improving%20Maternity%20Services%20in%20Australia%20-%20The%20Report%20of%20the%20Maternity%20Services%20Review.pdf

(Accessed: 07/09/18)

Australian Nursing and Midwifery Accreditation Council, 2014, 'Midwife Accreditation Standards' Available at: https://www.anmac.org.au/sites/default/files/documents/ANMAC_Midwife_Accreditation_Standards_2014.pdf (Accessed: 07/09/18)

Black, S. (2018) 'Does preceptorship support newly qualified midwives to become confident practitioners?' *British Journal of Midwifery,* Vol.26, No.12. Available at: https://www.magonlinelibrary.com/doi/full/10.12968/bjom.2018.26.12.806

Braun, V. and Clarke, V. (2006) 'Using thematic analysis in psychology', *Qualitative Research in Psychology* [online] Vol.3, Issue 2, 77-101. Available at: http://www.tandfonline.com/doi/abs/10.1191/1478088706qp063oa (Accessed: 15/01/17)

Chief Nursing Officers of England, Northern Ireland, Scotland and Wales (2010) Midwifery 2020: Delivering Expectations. Available at:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/216029/dh_119470.pdf (Accessed: 01/02/17)

Clarke, P. (2006) 'What would a theory of interprofessional education look like? Some suggestions for developing a theoretical framework for teamwork training', *Journal of Interprofessional Care*, 20(6), 577-589

Cope, D. (2014) 'Methods and Meanings: Credibility and Trustworthiness of Qualitative Research', *Oncology Nursing Forum*, Vol. 41, No.1, January.

Great Britain. Department of Health (1993) *Changing Childbirth, part 1: report of the expert maternity group*. London: The Stationery Office.

Great Britain. Department of Health (1999) *Making a Difference: Strengthening the Nursing, Midwifery and Health Visiting Contribution to Public Health*. London: The Stationery Office.

Great Britain. *Data Protection Act*: Elizabeth 11. Chapter 29. (1998) London: The Stationery Office.

Great Britain. *Freedom of Information Act*: Elizabeth 11. Chapter 36. (2000) London: The Stationery Office.

Guba, E. and Lincoln, Y. (1985) *Naturalistic inquiry*, California: Sage.

Hayes, J. Dave, S. Rogers, C. Quist-Therson, E. and Townsend, J. (2003) 'A national survey in England of the routine examination of the newborn baby', *Midwifery*, 19, pp. 277–284.

Hempstock, J. and Srabani, S. (2011) 'Routine examination of the newborn-development of a fully midwifery led service ', *Infant*, 7(2).

Hoope-Bender, P. Bernis, L. Campbell, Downe, S. Fauveau, V. Fogstad, Caroline, H. Homer, Powell Kennedy, S. Matthews, Z. McFadden, A. Renfrew, M. and Lerberghe, W. (2014) ‘Improvement of maternal and newborn health through midwifery’ *Lancet,* 384:1226-35 Available at: https://www.sciencedirect.com/science/article/pii/S0140673614609302 (Accessed: 02/01/19)

Jones, L. (2014) ‘Examination of the newborn - medical or holistic screening tool?’ *Midirs*, 24(1).

Lait, J. Suter, E. Arthur, N. Deutschlander, S. (2011) 'Interprofessional mentoring: Enhancing students' clinical learning', *Nurse Education in Practice,* 11(3):211-5

Lavender, T. Bennett, N. Blundell, J. and Malpass, L. (2002) 'Midwives' views on redefining midwifery: 4 general views. *British Journal of Midwifery* 10(2): 666-70

NHS England (2013) '*Review into the quality of care and treatment provided by 14 hospital trusts in England: overview report*', NHS England: London

NHS England (2014) ‘*NHS Five Year Forward View’*, NHS England: London

NHS England (2016) ‘*National Maternity Review, Better Births, Improving outcomes of maternity services in England, A Five Year Forward View for maternity care’*, NHS England: London

Nursing and Midwifery Council (2006) Preceptorship Guidelines 2006. NMC Circular 2006. Available at: https://www.nmc.org.uk/globalassets/sitedocuments/circulars/2006circulars/nmc-circular-21_2006.pdf

Nursing and Midwifery Council (2009) '*Standards for pre-registration midwifery education* ', NMC: London

Nursing and Midwifery Council (2014) 'Standards for competence for registered midwives', NMC: London

Nursing and Midwifery Council (2015) *'The Code: Professional standards of practice and behaviour for nurses and midwives'*, NMC: London.

Office for National Statistics (2013) Summary of live birth statistics, 1938-2013. Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/livebirths/bulletins/livebirthsinenglandandwalesbycharacteristicsofmother1/2014-10-16 (Accessed: 12/08/17)

Polgar, S. and Thomas, S. (2008) *Introduction to Research in the Health Sciences,* 5th Edition, Edinburgh: Churchill Livingstone.

Pope, C. Ziebland, S. and Mays, N. (2000) 'Qualitative research in health care. Analysing qualitative data', *British Medical Journal*, [online] Vol.320, p.114-116. Available at: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1117368/ (Accessed: 15/01/17)

Public Health England, (2018) 'Newborn and Infant Physical Examination Screening Programme Standards' Available at: https://www.gov.uk/government/publications/newborn-and-infant-physical-examination-screening-standards (Accessed: 06/07/18)

Queensland Clinical Guidelines, 2014, 'Routine newborn assessment' Available at: https://www.health.qld.gov.au/__data/assets/pdf_file/0029/141689/g-newexam.pdf

(Accessed: 07/09/18)

Renfrew, M. McFadden, A. Bastos, M. Campbell, J. Channon, A. Cheung, N. Audebert Delage Silva, D. Downe, S. Powell Kennedy, H. Malata, A. McCormick, F. Wick, L. and Declercq, E. (2014) 'Midwifery and quality care: findings from a new evidence informed framework for maternal and newborn care', *Lancet.*

Published online June 23, 2014 http://dx.doi.org/10.1016/S0140-6736(14)60789-3

Rogers, C. Yearley, C. and Jay, A. (2017) 'Education provision for the newborn examination as a post registration module: National survey,' *British Journal of Midwifery,* February 2017, Vol.25, No.2

Royal Australasian College of Physicians, (2009) *Examination of the Newborn.* Available at: https://www.racp.edu.au/docs/default-source/advocacy-library/examination-of-the-newborn.pdf (Accessed on 01/09/18)

Sandelowski, M. (2000) 'Focus on Research Methods: Whatever Happened to Qualitative Description?' *Research in Nursing and Health*, 23, 334-340.

Steele, D. (2007) 'Examining the newborn: why don't midwives use their skills?' *British Journal of Midwifery*, 15(12).

Tolofari, M. (2014) 'Counting midwives', *Midwives*, (1). Available at: https://www.rcm.org.uk/news-views-and-analysis/analysis/counting-midwives

Townsend, J. Wolke, D. Hayes, J. Dave, S. Rogers, C. Bloomfield, L. Quits-Therson, E. Tomlin, M. and Messer, D. (2004) 'Routine examination of the newborn: the EMREN study. Evaluation of an extension of the midwife role including a randomised controlled trial of appropriately trained midwives and paediatric senior house officers ', *Health Technology Assessment*, 8(14).

Yearley, C. Rogers, C. and Jay, A. (2017) ‘Including the newborn physical examination in the pre-registration midwifery curriculum: National survey,’ *British Journal of Midwifery,* January 2017, Vol.25, No.1

Table 1 Topic guide

1. Over the last 20 years it has become more commonplace for the newborn examination to be carried out by Midwives who have completed a post registration module, rather than by paediatricians. What is your experience of this?

Probe: Let the participant give an account of what they have experienced in practice as they may have worked in different areas.

2. Currently, in this locality, the first cohort of pre-registration midwifery students has just qualified with the academic component of the newborn examination. They are on a pathway to complete the practical component within their preceptorship year.

What do you think might be the positive aspects of this change in training?

What do you think might be the negative aspects of this change in training?

3. In your opinion what kind of challenges might this change in training pose?

4. What do you think will be the important factors that will make this change a success?

Probe: If they mention support, question further as to what this should consist of, for whom and in what form.

5. What suggestions would you like to make concerning newborn examination and midwifery education?