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Midwifery competence: content in midwifery students' daily written reflections on clinical practice

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Midwifery competence: content in midwifery students' daily written reflections on clinical practice

Abstract

Objective: to examine the content in midwifery students' written daily reflections and in their supervisors' written feedback during clinical practice at birth units.

Method: A total of 388 reflections written by a cohort of 18 midwifery students and written feedback provided by their supervisors have been analysed using content analysis.

Findings: One main category, *transition to midwifery competence* emerged and was interpreted as a process of development in midwifery skills over time. This main category encompasses five categories: *evaluations*, *own actions*, *communication*, *own emotions* and *insights* comprising fourteen subcategories. As the education program progressed there was evidence of development from fragmented reflections about care and learning to holistic reflections on learning. Comments from the clinical supervisors contained *acknowledgement* of the students' reflections or *comments with a didactic content*.

Conclusions: Daily written reflections on practice may be a useful pedagogical tool since reflective writing helps students to be active in transition to midwifery competence. Professional development may be facilitated by insights generated by reflection. Amount and content of feedback varied between supervisors which can result in a discrepancy in pedagogical value for individual students.

Keywords: midwifery students, reflection, education, learning, clinical practice, feedback

Introduction

Reflections represent a pedagogical strategy to incorporate theory and clinical practice by creating links between earlier experiences and the present situation (Boud and Walker 1998; Mann et al., 2009). Gibbs (1988) and Elmgren and Henriksson (2010) describe reflection as an integral part of learning. In clinical education, the individual uses personal experiences as a base for reflection in order to develop knowledge and skills which can be called upon when the individual is confronted with similar clinical situations in the future (Mann et al., 2009; Schön 1995). In a quantitative study Embo et al. (2015) examined the relationship between midwifery students' ability to reflect and the development of clinical competence and found a moderate correlation between reflection ability and professional competence. To our knowledge, the content in Swedish midwifery students' written reflections on practice has not earlier been described in a qualitative study.

There is no universal consensus on the definition of "*profession*". However, it is generally accepted that a professional body is one that is in agreement about ethical norms for the work they carry out and has been judged by society to have distinct knowledge and skills that have been accumulated through education and professional practice at a high level of competence (The National Board of Health and Welfare 2006, Cruess et al., 2006; ICM 2013). Each country has its own regulatory bodies which are responsible for the standard of education provided.

Attributes which are necessary in a "*good midwife*" are, according to Borrelli (2014), theoretical knowledge, professional competencies, personal qualities, communication skills and ethical values. These attributes are also in accordance with guidelines from the Swedish National Board for Health and Welfare (2006); "*Competencies for a registered midwife*" and the "*International*

code of ethics for midwives” (ICM 2008). A midwife’s professional competence has also been defined by Halldorsdottir and Karlsdottir (2011) as five equally important central factors, which together build a professional unit. The factors are: professional caring, professional wisdom, professional competence, human interaction competence and personal and professional development.

Methods for reflection may not be easily available to all individuals and it is necessary, during education, to provide guidance to students on how to initiate the process. In its simplest meaning, the word “reflection” means a mirror image. Schön (1995) describes two kinds of reflection: reflection-in-action or reflection-on-action. According to Schön (1995) ”reflection-on-action” means that reflection occurs directly after an event. Reflections in the present study are ”on action” which means that the students can retrospectively reflect over what actually happened and what might have been carried out differently. This appears relevant to the acute nature of a birthing unit. Bedwell et al. (2012) highlight the usefulness of diaries based on “reflection-on-action” for clinical learning and professional development since participants’ personal emotions are captured. Another important factor that facilitates clinical learning and professional development is the provision of feedback (Löfmark and Wikblad, 2001; University of Ulster, Project Number 174/02).

Hattie and Timperley (2007 p 81) define feedback as “information provided by an agent (e.g. teacher) regarding aspects of one’s performance or understanding”. Researchers have identified factors that can hamper the feedback process. Examples are inadequate education and training

for supervisors, insufficient time spent with students and an environment in practice that is not conducive to learning (Clynes and Raftery, 2008).

Acceptance to the 18-month long Swedish midwifery program is dependent on both previous registration as a nurse (three years education) and at least one year post-registration experience in clinical practice. In Europe one year of higher education is denoted by 60 ECTS (European Credit Transfer System). The midwifery program entails a total of 90 ECTS of which 45 ECTS are assigned to clinical practice. A principal aim of clinical practice is that the student should learn about normal birth whilst she/he develops as a practitioner who can independently supervise normal births (Lund University, 2013).

At Lund University, students of midwifery have a planned dialogue with their personal midwife supervisor every third week during their clinical practice and the students strengths and weakness are discussed. In cases where there are student weaknesses, the personal midwife supervisor is required to contact the midwifery teacher at the university. A discussion ensues between the three parties to clearly identify the problem and construct a plan to help the student's progress. These midwifery students also use diaries in which they are asked to write their reflections during clinical practice at birth units, in order to support learning and development of midwifery skills. The personal midwife supervisor is encouraged to write and sign comments to provide feedback to the student. The use of reflective writing was introduced to the midwifery program as a means to support student learning.

It is important for the development of the midwifery education program that this innovation is evaluated. The current study is part of a project where the authors aim to study the effects of

reflective writing on midwifery students' learning and professional development from differing perspectives. It has earlier been shown that progression in levels of complexity within cognitive and psycho-motor learning areas is apparent in students' written reflections during clinical practice at birth units (removed for blinded review). In order to examine whether students' reflections may aid development of midwifery skills, the aim of the present study was to analyse the content of written reflections during clinical practice at birth units and also the content of feedback provided by clinical supervisors.

Methods

Design

This study used an inductive approach in a qualitative method to analyse reflections written by a cohort of midwifery students in Sweden.

Setting

Although there are exceptions, midwifery care in Sweden is generally fragmented. The students in the present study are educated in a system where pregnant women are cared for, at best, by one midwife during pregnancy, another midwife during birth and a third during the postpartum period. It is also probable that the woman is cared for by more than three different midwives during her pregnancy and birth. In Sweden, care in labour is generally not organised as one-to-one care. Midwives working on birthing units may have two or more labouring women to care for at the same time. The students in this study were not known to the women giving birth and therefore the reflections are based solely on the labour period. The students were also being

trained to manage more than one birthing woman at a time. The number of births a student is required to attend is at present 50.

Subjects

Daily reflections were written by a full class of midwifery students (n=18) aged between 28-43 years, during clinical placement at birthing units at six different hospitals in southern Sweden in 2011-2012. Writing of reflections starts on the first day of clinical practice at the birth unit, which occurs five months after commencement of the course. Writing continues until the students' practice is completed. All 18 students gave their informed consent to allow inclusion of their reflections in the study. Clinical placements, two blocks of 12 weeks, followed directly after the theoretical course in normal birth. A theoretical course in complicated birth is followed by a five week block of clinical practice.

Ethical considerations

The ethical principles in the Declaration of Helsinki (World Medical Association, 2013) were used in the planning and conduct of the study. Informed, written consent to use the reflections in a scientific analysis was sought from each student. When consent was sought, the students were already qualified and therefore no state of dependence existed between the students and the authors. All means of identification were removed and the system of numbering ensures that no individual can be identified. The perspective of the analysis is pedagogical and therefore has no direct bearing on patient care. According to Swedish research regulations, it was not necessary to apply for ethical approval for this study. In order to ensure that the didactic methods we use are evidence-based, it is necessary to evaluate our methods and therefore the authors consider it

ethically correct to carry out this study. This evaluation may be beneficial to future students and their teachers.

Data collection

The student midwives were asked to formulate personal reflections on clinical situations they had experienced each day whilst in clinical practice at a birth unit. They were asked to write using Gibbs' model of reflection (Gibbs 1988). The model is composed of six areas of reflection; description, feelings, evaluation, analysis, conclusions and action plans. The students and supervisors were given a brief introduction to the model and pre-printed instructions were provided on which to write the reflections. Instructions contained the six areas of reflection so that each time the students wrote they would be reminded about how to use the model. Two of the authors (EKP and ME) collected the 1400 reflections written by the students. Each student numbered their reflections chronologically: the first birth they attended was given the number "one". In order to maintain some level of randomness to the inclusion, every fourth reflection was analysed. A total of 388 reflections were included. The hand-written reflections were between a half page and two pages long (A4). At the end of each reflection a space was left for the student's personal midwife supervisor to write a comment. The reflections were transcribed and all manner of identification of any individual was removed. In this paper, citations are provided with a number which shows how many births the student had attended and a number for each individual student. For example student number 9 and birth number 16 is written as S9/B16.

Data analyses

The students' transcribed texts, including descriptions of facts according to Gibbs' model of reflection (Gibbs 1988), were analysed using qualitative content analysis as described by Burnard (1991). In order to enhance validation, all co-authors were involved in the process of analysis. Initially each reflection was read carefully and notes about the character of the texts were taken. After this, open coding was performed. The transcripts were re-read several times and the process of open coding resulted in a large number of codes which were sorted into sub-categories. These were subsequently collapsed as the analysis progressed and categories emerged. In order to provide transparency and increase trustworthiness for the process of analysis, quotations were chosen to illustrate the categories. Notes about the character of the texts lead to an understanding of the structure in the students' reflections. Finally notes about content in the supervisors' feedback were examined and categorized.

Results

One main category, *transition to midwifery competence* emerged and was interpreted as a process of development in midwifery skills over time. This main category encompasses five categories: *evaluations*, *own actions*, *communication*, *own emotions* and *insights*. The five categories contain a total of fourteen subcategories (Table 1). Sub-categories are marked with italics in the text. The structure in the students' reflections varied from very distinct to unstructured and verbose. There was also a development from reflections on fragments of care to holistic reflections on the care situation. This development was most obvious in the categories: *evaluations*, *own actions* and *insights*. In the categories *communication* and *own emotions*, descriptions of wholeness were sometimes apparent even at the beginning of the educational

program. Supervisors' written feedback varied between merely providing a signature, acknowledging the student's words or providing comments with a didactic content.

Please, insert table 1 here.

Transition to midwifery competence

Evaluations

Evaluations included *progress in labour, the woman's status and needs*, for example contraction status, pain and analgesic needs and also *the status of the foetus or the new-born baby*.

Evaluations about the *progress in labour* were described and evaluated in almost all of the reflections. The passage of time, strength and effectiveness of contractions, cervical dilation and descent of the foetal head were quantified in order to judge and understand the concept of progress in labour.

This signifies that the cervix has opened 6 cm in 13 hours. Even if the mother is a primip, I think this seems like slow progress. According to my supervisor this is quite normal for a primip! (S14/ B10)

The students reflected on the status and needs of each individual woman. Consideration was given to how the mothers' psychological status (such as fear of childbirth) could affect labour progress.

She was in total panic and shouted all sorts of things during her contractions. Tried nitrous oxide but she didn't like it... .. after she'd been in the tub a while. I worked hard to try to get her to relax. We had to wait for the anaesthetist so we gave her Pethidine to ease the pain during the wait. A completely new woman after the epidural! Great to see. Practiced a lot in handling anger, pain and despair. Went well! (S15/B10)

In reflecting on the status of the foetus, the students wrote about both the foetus in utero and the newborn infant. Evaluation of cardio-tocography tracings (CTG) was a common topic. The students described what seemed to be their own evaluations combined with results of an ensuing discussion with a midwife supervisor or doctor. Relatively early in the period of clinical practice there was an obvious development from fragmented reflections to more holistic reflections as the students reflected on the normality of CTG tracings and this was a topic which was often discussed with their supervisors. In the middle of clinical practice the students increasingly included their own evaluations about CTG tracings and they expressed the beginnings of independent evaluations and decision making based on CTG.

Fill up the epidural and the baby's heart rate drops. Put her on all fours and the heart rate comes up again. Call the on-call doctor – take a scalp pH: 7.16. The woman starts to push well and it's decided "no vacuum extraction". Instead we deliver. Towards the end deep, complicated late decelerations – when the baby comes, it has the cord once round its neck. Lift it over – baby a little congested in the head, comes round well – 8-9-10 because of colour. (S3/B29)

Own actions

The students' own actions took a central place and described their ways of *learning and carrying out all the practical details in the art of midwifery*. It was important to learn skills which were integral components of the art of midwifery, such as carrying out vaginal examinations, external palpation, using different birthing positions, protecting the perineum, suturing, management of third stage of labour and documentation.

Towards the end of clinical practice the students began to write a short summary of events, such as "*assisted a normal birth*" which may represent a reflection on the entirety of the care situation. Example early in clinical practice:

The sutures are difficult to palpate but I can feel the large fontanel on the left, the sagittal suture in the transverse, below the spines. (S14/ B5)

The following citation is an example of a more holistic approach to the care situation written towards the end of the clinical practice:

Looked after this woman quite a lot on my own, apart from vaginal examinations. It felt really good. Progress was generally good. Some ineffective contractions after the epidural so we set up an oxytocin drip- increased the dose only twice- very good effect and she soon felt the need to push (drip at 30ml per hour). Good fetal heart rate all the time. In agreement with my supervisor I increase the drop to 50ml per hour. A lovely baby girl is born quickly....first degree tear needs sutures – felt good too. Feels like something has happened with me. (S16/B41)

Managing *medical-technical activities* such as induction and augmentation of labour, carrying out an amniotomy, applying a scalp-electrode and practical management of instrumental vaginal birth, for example vacuum extraction, were also skills that had to be practiced. Students reflected on their successes and failures.

3cm dilated with tense membranes. Try to apply a scalp electrode and puncture the membranes – not so good. The waters break but the electrode doesn't fix....typical. Better luck next time. (S16/B5)

In conjunction with their descriptions of their actions, the students reflected on *finding their own professional role as midwives in other situations than normal birth* such as in acute situations or planned C-section.

"I think I managed this well, nothing I was unsure of, more like a procedure in theatre. I've got it now – scrub, gown, my place and my job. Having seen a planned section with all the preparation makes it easier to grasp for future emergency sections! I think!" (S4/B13)

Communication

Verbal and non-verbal communication with the birthing woman and her partner were integral parts of the students' reflections. Communication includes, *giving and receiving information, empowering and interacting with the parents* whilst taking into consideration how the woman

and her partner understand the information. Language difficulties were often mentioned but the students also reflected on their non-verbal communication.

Felt that I worked well with this couple and that we had control over the situation and the planning. Felt that we had good contact with each other and that I supported her well. As usual, an informative day on delivery – I've thought about ruptured membranes or not – sometimes difficult to know. (S15/B17)

"When I'd sat with the woman a while I understood that she had a strong integrity and wanted to do this herself. She didn't need anyone to urge her on. She was very quiet and breathed nitrous oxide at her own pace". (S8/B13)

Communication as an important means of *co-operating with colleagues* including midwives, doctors and enrolled nurses was also often reflected on.

What I didn't do was keep my other hand on the baby's head when it was being born, my supervisor and I discussed this after the birth. We also talked about pros and cons of using a warm towel on the perineum. (S7/B41)

Own emotions

Clinical practice gave rise to many reflections on the students' own emotional responses.

Expressions of *happiness* but also *feelings of worry and inadequacy* were obvious. The students reflected on the happiness shared with the parents when a normal, healthy child was born and everyone was delighted. An important ingredient to happiness was when the students felt that they had done something that was positive for the woman and for the birth process. In these cases it happened that a woman expressed great thanks to the student or that maybe she didn't want the student to leave her during her labour.

This mother was agitated and a bit aggressive, BUT managed to calm her. SHE

DIDN'T WANT ME TO GO HOME – SHE WANTED ME TO STAY!!

(S3/B21)

Feelings of being able to manage situations in a competent manner were important. The students reflected about the atmosphere that could pervade the birthing room; a calm and relaxed atmosphere gave feelings of happiness. Emotions were not always positive; sometimes there were feelings of worry and inadequacy. Reasons for these feelings differed but were often related to problems occurring during the birth, for example, worries about fetal heart rate, a woman in great pain or poor progress. Feelings of worry make the student question his/her competence. Students felt sad when they were unable to help a woman who had gone into panic because of her pain. Reflections about strained relationships between the mother and father could also lead to feelings of sadness.

It didn't feel good that the father-to-be didn't take an active part in the birth. He had left the woman during the pregnancy and was there for the birth. Such a sad situation for the woman and the baby. (S15/B5)

Insights

The students' reflections were often insightful as they began to piece together the whole picture of midwifery practice. They reflected on their own *insights about birth*, importance of obstetrical history, how quickly a situation can change and also *insights concerning their own strengths and limitations*. They reflected on successes and failures in different practical situations and also how they gradually felt more and more independent. Finally they reflected on their *own learning needs*. The learning needs were both theoretical and practical and were often expressed together with descriptions of their own limitations or new emergency situations.

Learnt that multiparas can be THIS quick in labour – unreliable! (S4/B17)

I do a vaginal examination and I get a real "Yes!" experience because I find the cervix and get two fingers in it and I feel both the external and internal os, and the baby's head and the slippery membranes. So fantastic. (S16/ B5)

I feel that my control during the second stage is good and that I time guarding the perineum well. What I missed was checking the foetal heart rate regularly during descent of the head and second stage. There were no consequences this time – the baby was fine

but it's important for me to think about this in the future. I've become accustomed to continuous monitoring when progress is more normal – slower. This is a habit that can be a bad habit. (S1/B29)

Generally speaking, I feel that I need to be surer of all the routines surrounding the actual moment of birth and in what order everything should be done. I need to have a better overall grip on the situation and to learn to keep cool, or rather get some knowledge so that I know when I ought to be cool. (S1/B5)

Structure of students' reflections

In the analysis of the written reflections five distinct types of structure were identified. These are as follows: *carefully structured text based on Gibbs' model of reflection, written memos, discussion-based structure, question-based structure and un-structured text.*

The students who wrote in a very structured way, using Gibbs' model, often listed and described what they had learnt.

Did a vaginal exam, external palpation, listened to the fetal heart, assisted at a normal birth. Followed a labour from beginning to end. Learnt what can be done for retained placenta – toe acupuncture, warm towels on the abdomen, inject

oxytocin x 2, empty bladder with a catheter. Inspected tear and discussed evaluation of it. Did some single sutures. (S9/B2)

Others wrote memos ending with a list of the day's insights and things learnt.

*Think about going through all the steps in a vaginal exam: cervix status, effacement, direction, dilation, bulging membranes, station. Find the spines!!!
Think about the contractions! (S13/B33)*

*Several points of learning: - CTG – when to contact doctor? Section – preparation time, how to plan? Getting through to a woman who is difficult to reach.
Unexpected affected baby – gave me more knowledge about what to do in case of section. (S4/B37)*

Those who used a discussion-based structure in their reflections often answered their own questions.

*I'm thinking about the tear thing, she tore quite a bit and I wonder if I could have done something differently to avoid this happening. Did I not check on the perineum enough? I can't remember. It happened so quickly when the baby did the fourth rotation and then came out. In any case, I'll think about it more next time.
(S12/B9)*

Some students asked questions that were as yet unable to answer.

How do you know if a uterus is "well contracted" or whether it's tense because of clots? (S17/B12)

The final group did not use Gibbs' model but wrote in an un-structured manner and included a lot of text.

She doesn't put up the stirrups but shows how one can lean over the bed when only one or two sutures are needed. Considering my back and that just now it takes some time for me to suture, it will perhaps have to wait! Important to think about contacting the paediatrician since patient has GBS and got IV penicillin 30 minutes before the birth. (S14/B17)

Amount and structure of supervisors' feedback

Approximately one third of the written reflections were read and signed by the supervisor without any written feedback. Comments from the clinical supervisors contained acknowledgement of the students' reflections or comments with a didactic content. At times both acknowledgement and didactic comments were evident in the feedback. The amount and content of feedback varied greatly between supervisors but was generally very short.

Example of a comment which gave acknowledgement:

Good, alert and aware. It's a few weeks since we delivered together but it felt good. (S13/B13)

Example of comments which contained acknowledgement and pedagogical comment:

Hi XXX. You experienced how quickly a situation can become serious. An epidural isn't always without risk. You have to always be alert and aware of the risks. Same with bleeding afterwards. Always have a plan ready. Otherwise, don't be afraid to cut and not too little. Good perineal protection and a good delivery. A demanding patient but you managed well. Nice birth generally. Read up on neonatal resuscitation. (S14/B45)

Good that you're thinking about how to plan for two patients. Don't leave one without being checked. Ask a colleague or an enrolled nurse for help. You have developed your contact with the patient, you see the WHOLE person now. How does Pethidine work – what should you think about? (S4/B41)

Discussion

We consider that the most interesting results of this study were in the category “*Insights*”. The students’ reflections lead to descriptions of their own limitations and learning needs. “*Insights*” of this kind are central to the use of written reflections. Both personal and professional development may be facilitated by insights that are generated by reflection and it is also possible that without reflection, professional development may be hindered. Appreciation of the rapidity

with which an obstetrical situation can change, which was apparent in the results, is an insight vital for midwifery students and newly qualified midwives in their care of birthing women.

In the writing of reflections the student becomes active in her/ his own transition to midwifery competence. Reflections on clinical practice may support students in attainment of factors that are central to the midwifery profession (Borrelli 2014; Halldórsdóttir and Karlsdóttir 2011). All the categories, included in the main category “*transition to midwifery competence*”, are related to both **the areas of basic competence for midwives** working at birth units (The National Board for Health and Welfare 2006) (Figure 1) and essential **areas of learning** according to The Swedish National Agency for Higher Education (1993), the Syllabus SBMP 18, Midwifery program (Lund University 2013) and ICM (2013) (Figure 2). The areas of competencies are; information, counseling and dialogue, examinations and treatments, personal and professional development and the areas of learning are knowledge, skills and behaviors.

Please, insert figure 1 here

Please, insert figure 2 here

Inclusion in students’ reflections of all the categories identified in this study may signify a stable professional development. In order to support the individual student, tutors and supervisors should be aware of which areas are encompassed in the student’s reflections and also which areas have not been included. It may not be necessary that each reflection contains all of the

categories but as education progresses, the midwifery supervisor should be vigilant regarding content and the development of a holistic approach within the reflections. It would be advantageous if the categories were kept in mind during planned dialogues so that students who require extra support are easily identified. Jasper et al. (2013) illustrate the use of written reflections as a means towards professional development which was the premiss for our use of this method. The purpose of written reflections in our context was not to grade students, since we consider that an honest reflection may not be possible if the aim is to grade the students.

In the category “*evaluation*”, it was clear in the students’ reflections that they were aware that one of the big challenges in contemporary obstetrics is evaluation of progress of labour (Kjaergaard et al. 2009). In nearly all the daily reflections, something was written about progress, duration of labour, cervix dilation and descent of the foetal head. Another area that concerned the students was the use and interpretation of cardio- tocography (CTG) which is an area of midwifery care under extensive discussion in Sweden because of problems regarding observer consensus in interpretation of CTG-tracings (Santo and Ayres-de-Campos 2012).

Using reflection as a method to process situations is an integral part of learning which Bedwell et al. (2012) describe as emotional work where the writing of diaries can be used as a means for personal debriefing. Students’ reflections on personal emotions may strengthen personal growth and empower them as midwives. Empowered midwives have been shown to be more aware of parents’ resources and needs (Thelin et al., 2014; Hermansson & Mårtensson 2011).

There was considerable variety in how the students structured their reflections, which Bedwell et al. (2012) also reported. It is likely that motivation for writing the reflections also varies. Some students appeared to write because they felt it necessary to show what they had learnt, since the exercise was an obligatory part of the midwifery course. In other cases it seemed as if the students, when listing things learnt, were sorting knowledge in order to remember what they had learnt. Writing could at times be seen as a means to clarify situations for the student's own sake and also to process a scenario, which might indicate that the writing of reflections in itself could be a catalyst for the students learning. Not infrequently, students wrote open questions without answers which may be interpreted as a wish for help in clarifying a situation, possibly by initiating a dialogue with the midwife supervisor and thereby increasing understanding, which suggests inter-activeness in knowledge acquisition. In cases where there was little structure in the reflections, there was a tendency to long-windedness and analysis was difficult. It is possible that unstructured writing indicates reflections that are not fully formed and these students may need extra guidance and help to reflect on practice.

A result in the present study was the apparent development in students' fragmented view of the birthing situation to an appreciation of the wholeness of the birth, both in their professional role and also from the birthing woman's perspective. This progression has been further investigated in a study using the same material where analysis of the reflections was carried out by applying two taxonomies to the texts (removed for blinded review).

The study showed variety in the way in which the midwife supervisors gave written feedback. Many of the comments given by the supervisors were very short. Some midwives simply signed the student's reflection, others gave supportive acknowledgement of what the student had written

and others gave pedagogical advice. This meagre response most probably has its roots in the fact that we have provided insufficient information and instruction about the writing of comments and insufficient encouragement to the midwife supervisors regarding the value of their feedback. In this study only about one third of the reflections had been given didactic comments from the supervisors. We interpret this as an area to earmark for improvement. Our intention is to bring awareness to supervisors about the importance of their feedback and to support them in providing more feedback which can enhance the students' learning. Hattie and Timperley (2007) have shown that the method of giving feedback can be more or less effective for the student's learning. They write that to be effective, feedback should be "*clear, purposeful, meaningful, and compatible with students' prior knowledge and to provide logical connections*" (page 104).

Further research is needed to clarify both students' experiences of writing reflections and midwife supervisors' experiences of giving written feedback. It is possible that variance in type and amount of feedback given may indicate a discrepancy in pedagogical value for individual students and may be seen in the quality of student reflections. This is also a subject suitable for further investigation.

Reflection during clinical practice strengthens the link between theoretical and practical learning making it more difficult to divorce the two (Elmgren and Henriksson 2010). Training health professionals entails providing a large degree of support for the individual's personal and professional development. Part of this support can be attained by allowing the students to be auto-didactic by using written reflections on practice. Supervisor feedback appears to be an

important factor for skills accumulation and consolidation of knowledge. Further research is needed to gain a deeper understanding of the usefulness of written reflections by examining students' experiences of writing reflections and midwife supervisors' experiences of giving written feedback.

Study limitations

Since there was, to the authors' knowledge, no previously published research examining the content of midwifery students' written reflections, an inductive approach was considered a suitable choice. In using Gibbs' model of reflection (Gibbs 1988) as a basis for writing the reflections, the approach has become, to a certain extent, deductive. However, the fact that the emergent categories support the areas of learning outlined by the ICM (2013) cannot easily be explained by the application of Gibbs' model (Gibbs 1988) and therefore it seems that the results have some measure of trustworthiness and transferability.

The authors of this study have experience of clinical midwifery and of teaching midwifery students. These experiences could have been problematical during analysis of the material. It was important to acknowledge the potential problem of "knowing" what the students meant rather than carrying out a naive analysis. Consensus on interpretation of the texts has been reached by using both individual analyses and by long discussions between the three authors, returning when necessary to the original Swedish texts.

Conclusions

Daily written reflections on practice may be a useful pedagogical tool for transition to midwifery competence and may allow the student to be active in her/ his own transition to midwifery competence. Inclusion in students' reflections, of the categories reported here, may be a useful indication to clinical supervisors that the student is approaching basic midwifery competencies. Professional development may be indicated to the supervisor by the movement from fragmented to holistic reflections. We consider that the model represented in this study should not be used to examine the student's competence, since an honest reflection may not be possible if the aim is to grade the students. The variance in type and amount of feedback which was seen in this study may indicate a discrepancy in communication between the university and the supervisors regarding the pedagogical value of feedback for individual students.

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Table 1. Categories in midwifery students' reflections on practice.

Main category	Categories	Sub-categories
Transition to midwifery competence	Evaluations	of progress in labour
		of the woman's status and needs
		of the foetus and new-born's status
	Own actions	to learn and carry out all the practical details in the art of midwifery
		to manage medical-technical activities
		to find one's own role in other situations than normal labour and birth
	Communication	to give and receive information
		to empower and interact with the parents
		to co-operate with colleagues
	Own emotions	expressions of happiness
		expressions of worry inadequacy
	Insights	about birth
		about own strengths and limitations
		about own learning needs

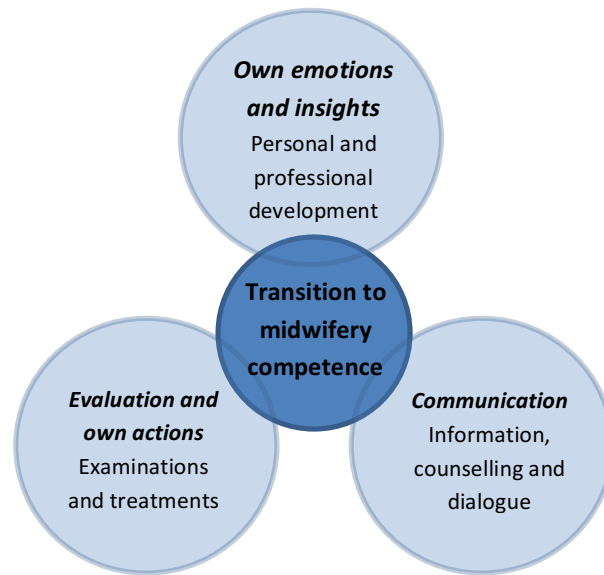


Figure 1. The categories (in italics) related to **areas of basic competence for midwives** at birth units according to Swedish National Board for Health and Welfare (2006)

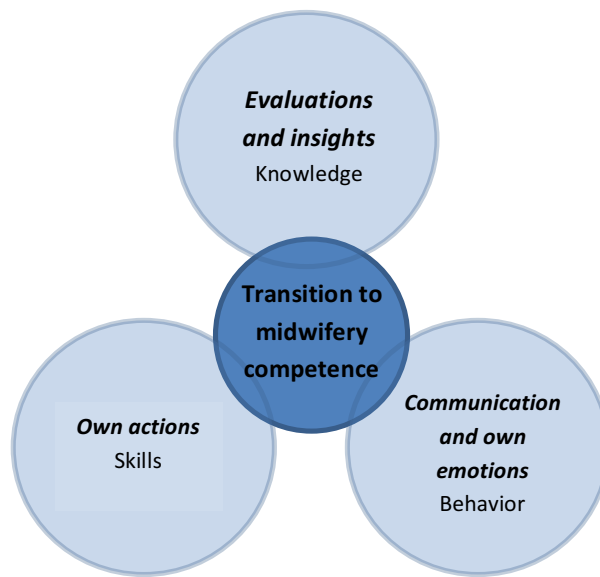


Figure 2. The categories (*in italics*) related to **areas of learning** according to the Swedish National Agency for Higher Education (1993), the Syllabus SBMP 18, Midwifery program (Lund University 2013) and ICM (2013).