

“I’m afraid, actually!”

**Midwives’ challenges in providing quality maternal and newborn care
in health centres in Addis Ababa, Ethiopia**

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This thesis is submitted in partial fulfilment of the requirements for the degree of
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Abstract

Despite several international commitments including the Millennium Development Goals and national efforts the maternal and neonatal mortality in low- income countries is still high. Still 329,000 women and more than 6 million neonates die every year. Access to antenatal care, skilled attendance at birth and access to emergency obstetric care are important determinants to reduce the numbers of deaths. In this statistic Ethiopia is one of the countries that are suffering most.

Midwives play a crucial role in reducing maternal and child morbidity and mortality, and there is an increased focus on the education and deployment of midwives in low-income countries. However, both the pre-service education of midwives and their working conditions are poor, including little opportunities for professional development.

Through a qualitative study I aimed to increase the knowledge of midwives' challenges in providing quality maternal and neonatal care. The study was conducted in three different health centres in Addis Ababa, Ethiopia for three months during fall 2013. The data were collected through participant observation in the delivery ward. In addition I did 11 semi- structured, narrative interviews with the midwives. The concept of evidence- and experience-based knowledge is used in the analysis. Technically I analysed my data using Thematic Content Analysis.

Fear of complications in labour and childbirth, a poor working environment with little supervision and role models and lack of motivation for entering into midwifery are the most important findings. The findings are presented through quotes and examples from the maternity ward. My study is presented as a monograph.

Based on the findings I conclude that the education of midwives in Ethiopia needs to be revised and improved. A recognized autonomous profession in a sustainable and safe working environment are important conditions for midwives to improve the quality of care.

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Abbreviations and acronyms

BEmONC: Basic Emergency Obstetric and Neonatal Care

CEmONC: Comprehensive Emergency Obstetric and Neonatal Care

HIV: Human Immunodeficiency Virus

ICM: International Confederation of Midwives

MDG: Millennium Development Goals

MMR: Maternal mortality ratio

NGO: Non-Governmental Organisation

PPH: Postpartum haemorrhage

PROM: Pre labour rupture of membranes, defined as rupture of the membrane of the amniotic sac and chorion more than one hour before the onset of labour/contractions

REK Vest: Regional Committees for Medical and Health Research Ethics

UN: United Nations

US: United States of America

WHO: The World Health Organisation

Definitions

Ambu-bag: A bag valve mask for ventilation/resuscitation

Health indicators:

Infant mortality rate: The annual number of children under one year of age dying per 1000 live births

Maternal Mortality Ratio: Number of deaths of women from pregnancy-related causes per 100,000 live births

Neonatal mortality rate: The annual number of children under one month of age dying per 1000 live births

Perinatal mortality: The annual number of children dying from gestational week 22 until the first week of life

Under-five mortality rate: The annual number of children dying between birth and exactly five years of age, per 1000 live births

Multi para: A woman who has delivered more than once

Parity: How many times a woman previously has delivered

E.g: para 2, a woman who previously has given birth two times

Primi gravida: Pregnant for the first time

Primi para: Giving birth for the first time

Acknowledgment

Writing this thesis has been like going through pregnancy and childbirth...

It started with excitement, even though I had planned it as well as I could. *The baby* was growing little by little, and during the winter it started moving. However the days have also been long, with difficulties and thoughts of never coming to an end, and the day of delivery seemed far away..

The baby has suffered from growth restriction, but since spring it has gained weight from week to week. Through the whole pregnancy I have received good *antenatal care* from my supervisors.

Now I am tired, resigned and impatient, just waiting for *the baby* to be delivered. And now the day is here! Unfortunately I am overdue ... and I hope it will not become a prolonged labour. I will be on, pushing and pushing with both encouragement and support from those who have been and are around me, whom I want to thank:

Karen Marie Moland- my main supervisor. You are knowledgeable and wise, warm and caring, serious and humoristic. Thank you for all your time, your incredible patience and valuable small talk!

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My dear husband **Torvid** – your wisdom is infinite..

1. Introduction

[One day] “a labouring mother came by foot to that rural hospital so.. we admitted her. She was open three cm... After seven hours she was fully dilated....I put her on the couch, (delivery bed) then.. she didn’t push! There were no adequate contractions.. One, two contraction in ten minutes.. I was trying vacuum extraction, and failed two times. After that I called for a health officer. That health officer was trained with emergency surgery, with gynaecology and others.. So, he was again trying with vacuum ..and he also failed two times.. “I will try forceps”, he said.. He tried with forceps.. and also failed that forceps. The foetal heartbeats were absent by that time.. Yeh. Absent.. And then he tried craniotomy (penetrating the foetus’ skull so that some of the brain substance runs out and leads to a smaller head and an easier delivery; authors comment) He then.. he then did the craniotomy and removed the baby.. Removed the placenta.. Then .. she bled.. She bled.. a lot. I had secured i.v-line already.. before she started bleeding. We secured i.v-line...and also Pitocin (Oxytocine) was given, but the bleeding did not stop. The bleeding did not stop... He found the bleeding site... but by the time... the mother was grand multigravida.. and the uterus was ruptured. So., on the couch... her life is gone.. (low voice) On the couch... (whispering). The referral place was so far away!... up to eight hours.. It was difficult to send that mother.. She died..”

(Ihite, female, age 28)

This story describes the reality and daily life for many midwives in low-income countries. It includes macabre situations, drama and death, sorrow and own helplessness, in a setting with both limited human and medical resources, and where personal emotions have to be suppressed. The risk of losing a woman and/or a child is a constant threat and a burden in

work as midwives and these experiences influenced their perception of midwifery as a highly risky and dangerous profession.

Almost 15 years after the establishment of the Millennium Development Goals (MDGs) and one year before the target year 2015, the burden of maternal and child mortality in low-income countries is still high (1). More than 289,000 women are dying in relation to pregnancy and childbirth each year, and 2.9 million neonates are dying within their first month of life (2).

The global maternal mortality ratio (MMR) has since 1990 been reduced by 45% (1) and the under-five mortality rate by almost 50% (2), but many low-income countries will not achieve the target of 3/4 reduction in maternal mortality and 2/3 reduction in child mortality by 2015. Even though the HIV-epidemic in many low-income countries has increased the numbers of maternal deaths, it can not explain all (3). The MMR is still 15 times higher in low-income countries (4). 99% of maternal deaths occur in Sub Saharan Africa and in Asia and ten countries in this part of the world alone account for 60 % of all maternal deaths globally. Among these is Ethiopia with 13,000 maternal deaths annually (1).

Also within child health major improvements have been achieved. Despite the under-five mortality rate globally has declined with 50%, the number of neonatal deaths- death between birth and before one month of age- is increasing (4). Nearly 50 million infants annually are delivered without skilled care (2, 4). Two-thirds of all newborn deaths occurs in 12 countries, out of which six are in Sub-Saharan Africa, among them Ethiopia (2). Most causes of both maternal and neonatal deaths are preventable but requires knowledge and skills (2).

There is an international agreement about the importance of midwives and a skilled environment in birth care. Together with emergency obstetric and neonatal care these are important determinants for reducing maternal and neonatal mortality, and investments,

accountability and strengthening of midwifery services are important to improve maternal and child health (5). Maternal mortality has often been referred to as an indicator not only of maternal health, women's status in the society and of social development, but also of health systems functioning. This places midwives as health care professionals at the centre of attention. The Minister of Health in South Africa expressed on the Facebook page of the International Confederation of Midwives:

“Measuring the success of a country is not about money, but about healthy pregnancies, safe deliveries and surviving the first weeks after the delivery. The *practice of midwifery* is central for this success”

Dr. Aaron Motsoaledi, Minister of Health in South Africa,
December 3, 2013

Being a midwife myself I am interested in maternal and perinatal morbidity and mortality, and in the barriers and facilitators to improve health and survival. I have a strong identity to the midwifery profession and I am interested in how midwifery as profession is perceived and performed in different cultures and social contexts. After working as a midwife for more than 25 years and after gaining experience from education of midwives in Palestine and in Afghanistan I am interested in to understand *why* the morbidity and mortality ratios both for women and their newborns in many low-income countries remain high. Is it because of midwives' lack of knowledge and skills, education or practices, or are there other factors and implications that matter to how midwifery is being performed?

I wanted to achieve a deeper understanding of these issues and to investigate this through a focus on midwives' work, routines and provision of maternal health care. I was interested in how it is to be working as a midwife in a maternity ward in Addis Ababa, Ethiopia and in what challenges the midwives there are facing. What are the obstacles and opportunities to further reduce the continued high number of neonatal and maternal deaths in the country?

2. Background

In year 2000 world leaders met in the UN and adopted the Millennium Declaration, committing their countries to a new global partnership to reduce extreme poverty, achieve universal access to education, improve health, promote gender equality and empowerment of women as well as ensure a sustainable environment. A set of targets was established with a deadline in 2015, i.e. the Millennium Development Goals (MDGs) (4). However, many member countries have struggled to achieve particularly goal number four and five, which identifies maternal and child health:

MDG 4: Reduce by two thirds, between 1990 and 2015, the under-five mortality rate

MDG 5: Improve maternal health

5A: Reduce by three quarters the maternal mortality ratio

5B: Achieve universal access to reproductive health (4)

The Millennium Project started in 2002, commissioned by the UN Secretary-General to develop a concrete plan to achieve the MDGs and reverse poverty, disease and hunger. The recommendations from the project were launched in 2005 as “A practical plan to achieve the Millennium Development Goals”. Since the targets did not seem to be achieved as quickly as expected a new global action plan was adopted in 2010 that in addition to eradicate poverty, hunger and disease accelerates the progress to reduce maternal and child mortality (4).

Causes of maternal and neonatal deaths

So why do women and neonates die? They die due to a combination of medical causes and structural barriers such as lack of access to a well functioning health care system providing quality care for all patients, as described below.

Medical causes

The most common medical direct causes of maternal deaths are haemorrhage, infections, preeclampsia, obstructed labour and unsafe abortions, conditions that all are preventable and treatable (1). Haemorrhage can occur antepartum, intra partum or postpartum, and postpartum haemorrhage (PPH) alone represents 27.1% of maternal deaths and according to WHO approximately 86,000 women globally die from PPH each year (6, 7). PPH can occur without any identified risk factors and can abruptly turn into a fatal situation, requiring rapid and appropriate action (8). However, unlike many other causes of maternal death, PPH is commonly preventable or treatable by simple means, but demands health workers with the necessary skills and knowledge (8).

Indirect causes are getting increasingly important to explain maternal deaths worldwide, also in low-income countries. Non-communicable conditions such as diabetes, obesity and cardiovascular disease are often exacerbated in pregnancy and these conditions represent 28% of maternal deaths today, equal to PPH alone (7). These changes in causes of maternal deaths will demand a health care system with adequate educated health workers, drugs and equipment to be able to save the life of the mother and the baby both as a result of the direct causes as well as related to non-communicable diseases (7).

85% of all newborn deaths are caused by complications related to prematurity, low birth weight, birth asphyxia and infections (2).

Structural and social causes

Access to health care

The underlying elements that need to be present to achieve the highest attainable standard of health care –including maternal and child health care- are *availability, accessibility, acceptability* and *quality*, described by Tanahashi as the AAAQ-framework (9).

Availability means a health facility available at local level and in sufficient numbers, and that these health facilities have the sufficient number of health care workers with the right competence and skills and the essential drugs and equipment. *Accessibility* means health services being accessible to everyone, especially marginalised and vulnerable groups. The health service must meet peoples' needs and be accessible in sense of affordable user fees. Furthermore health services must be *acceptable*; the service must respect medical ethics and be sensitive and appropriate to different cultures and gender. And last, but not least, health service must be of good *quality*, both scientifically and medically, and people must be treated with respect. This includes that health education must be of good quality (9). Lack of quality in health care will have implications particularly for the accessibility and acceptability of care.

Delays in accessing health care

In 1994 Thaddeus and Maine (10) identified the so called “The three delays”, a concept that explains obstacles in accessing skilled maternal care. The first delay is “delay in seeking care”, the second delay is “delay in reaching the health facility” and the third delay is “delay in accessing appropriate care in a health facility”. The first and second delay refers to as patient related delays. Factors shaping the decision to seek care (first delay) could be such as consent from family members, the status of the woman, lack of knowledge, distance to and previous experience with the health care system, and financial costs. Delay in reaching the health care facility (second delay) includes obstacles such as available transportation, road conditions and travel time.

In a systematic review Knight et al (11) identified and categorized barriers to the provision of health care. While previously focusing on reasons and challenges related to the first and second delay, this study pointed out barriers of the third delay being inadequate training and skills among health care workers (86%), shortage of staff (60%) and low

motivation among the staff (44%). The review concluded that the third delay is important and related to health workers attitudes and incompetence in managing complicated labour and deliveries. Many women do not seek care in a health facility at all since they know they probably not will receive the necessary help and in addition risk dying in the facility (10).

The elements from both the AAAQ-framework and “The three delays”-model are described in a study of Mselle et al (12). Many women in low-income countries delay in seeking professional health care when in childbirth. Some of them need permission to seek this kind of help from their husband or mother-in-law. When deciding to seek care, the access to a health facility offering emergency obstetric care is inadequate and transport is the major problem. The study reported that 20 % of the women have to walk or are carried to the health facility, often after being in labour for two days or more. When in the facility, the women have to wait for assessment and are reporting neglect, lack in care and supervision. These delays in care and proper treatment can lead to serious complications in childbirth such as stillbirth, ruptured uterus or fistulas, conditions that, if she survives, have serious consequences for the woman’s life (12, 13).

Also where health care is available and accessible, quality of care is often lacking. Moyer et al (14) describe in a study from rural Ghana where labouring women report neglect, discrimination, verbal and physical abuse from the midwives, resulting in that many women do not deliver in the facility. A qualitative study of midwives in a hospital in South Africa shows that midwives themselves lack mutual participation with the labouring woman, are lacking decision making, information and informed choices. In light of the powerful effect midwives have on labouring women, these findings address the importance of both pre-service education as well as supervision and guidance during the daily work as midwives (15).

To be able to provide universal effective and quality midwifery service to all women and their newborns, it is important to view the AAAQ-framework also in relation to the midwife and the midwifery workforce, as emphasized in the recently launched reports *The State of the World's Midwifery 2014* and *The Lancet Series on Midwifery* (16-20).

Availability of midwives refers to full-time equivalent, not headcount, and the report underlines that further work needs to be done both in relation to the number of and the composition of the employed midwives in the different facilities. An improvement of availability will in addition depend on how new midwives are managed and taken care of when starting their professional life, and of the status and identity of the profession.

Midwives' salaries are among the lowest for health care professionals in most low-income countries (16).

Despite availability and accessibility, will the utilization of care and the service they provide be reduced if the midwifery workforce is not *acceptable* to women and their families. Lack of respect and discrimination both towards the users and also towards health care workers continues to be an obstacle for access, and must be recognized as an important element of care. Even when midwives are available, accessible and acceptable for labouring women and their families, lack of *quality* care including knowledge, skills and respectful attitudes, can limit the effectiveness of the service provided (16).

The Lancet Series state that *availability* and *accessibility* alone are not enough to guarantee a high-quality care or to reduce maternal and neonatal morbidity and mortality. Improvements in *both* coverage and quality of midwifery service at the same time should be addressed, and both are equally important. Women's access to and use of midwifery service should be supported and improvements done in the quality of care women and newborns receive. More efforts need to be done to meet the individual woman, her expectations and

needs, so that she is going through a healthy and safe pregnancy and childbirth and is being respected and supported (20).

Skilled attendance in labour and childbirth

Also in Europe a high maternal mortality ratio (MMR) was the reality just a century ago, with figures similar to that found in low-income countries today. From around 1910 the MMR started to decline dramatically, particularly in the Northern European countries such as Scandinavia and the Netherlands (21). Until the 1930s, the MMR remained high but with a wide disparity between the various countries. Improvement in general living standard, hygiene and gradually the introduction of antibiotics contributed to this development, but good maternal care including deliveries conducted by well-trained and well-supervised midwives using antiseptic procedures was probably the single most important reason for the reduction in MMR (21). These countries have the lowest MMR in the world today (22). This experience has been an argument for skilled attendance as an important factor to reduce MMR and neonatal mortality.

Skilled attendants

Midwives are expected to be experts in pregnancy, labour and childbirth and thus are crucial professionals for achieving MDG 4 and 5. According to WHO the skilled birth attendant represents an important intervention to reduce the neonatal and maternal morbidity and mortality since rapid and proper management can be the difference between life and death (6).

WHO, in collaboration with the International Confederation of Midwives (ICM) and the International Federation of Gynaecology and Obstetrics (FIGO), defines a skilled birth attendant as:

“.. an accredited health professional- such as a midwife, doctor or nurse- who has been

educated and trained to proficiency in the skills needed to manage normal (uncomplicated) pregnancies, childbirth, and the immediate postnatal period, and in the identification, management, and referral of complications in women and newborns (23).

Skilled *attendance* refers to an environment or health system where a skilled attendant is working. To function effectively, an enabling environment providing quality care in labour and childbirth must set a standard that defines what quality maternal and newborn health care is (23). This includes that human resources must be ensured such as sufficient skilled attendants with satisfactory salary and opportunities for continuous education, as well as supportive supervision of the skilled attendants to ensure that they can continually assess their own practice. In addition the quality environment must have available equipment, drugs, supplies as well as a functioning transport and referral system. A range of health professionals, depending on the country context, provides skilled care (23).

Every Newborn is a newly released action plan to end preventable neonatal deaths (2). The objectives include strengthening and investing in high-quality and respectful care during pregnancy, labour and childbirth and the first day and week of life, including prevention and management of complications for both the mother and the neonate. There is an agreement and evidence that the standard of health workers education is low in many countries, in addition to poor working conditions with low salary and little career possibilities, and that both the quality and density of health workers need to be improved (2). However, the skills and knowledge among birth attendants in low-income countries do not always meet the required standards (23). Midwifery skills include both technical and non-technical skills. Technical skills include such as examination and evaluation of the woman, manual skills in the birth situation, skills and dexterity in the assessment of the labouring woman, suturing of tears as well as in handling of the neonate. In addition the midwife must have knowledge and skills about e.g. when and how to administer different drugs, and being

able to use medical equipment such as an ambu-bag for resuscitation of the neonate and ventouse for assisted vaginal deliveries (23).

The non-technical skills are the midwife's relationship and interaction with the woman, and are characterized by empathy, understanding, mutual respect and care. Care includes the physical treatment and emotional support, the woman's emotional wellbeing as well as physical and mental presence of the midwife. The midwife must have interpersonal communication skills and respect the woman and her rights, and include the woman in the management of both pregnancy, childbirth and in the postnatal period. This includes education of both the woman and her family through the pregnancy as well as making a birth plan in cooperation with the woman (23, 24). Although having a child is an individual experience it is a particularly vulnerable period in a woman's life and lack of emotional or social well-being in this period can have an impact on her and her infant's health (25). Emotional or psychosocial support includes respectful attitudes towards the labouring woman, observing women's rights, guidance, advice and consecutive information, and making a birth plan (23, 25). In addition, communication and cooperation with others in the health care team are hallmarks of midwifery (23).

Emergency obstetric care

Many pregnant women will develop severe complications in pregnancy and childbirth, and up to 15% of all childbirths will develop a potential fatal complication (26). Even though many of these complication are preventable and treatable, a package of care called Emergency Obstetric Care was defined and established in the 1990s as a tool with the aim of reducing the high MMR in developing countries (3).

A Basic Emergency Obstetric and Neonatal Care-unit (BEmONC) will in addition to normal deliveries handle obstetric problems such as PPH, prolonged labour, assisted vaginal deliveries, pre-eclampsia, and resuscitation and care of the neonate. A hospital is defined as a Comprehensive

Emergency Obstetric and Neonatal Care unit (CEmONC) and can in addition perform Caesarean section, have access to anaesthesia and commonly a blood bank (27). All health care providers in labour and delivery care should be capable to handle these conditions to decrease the numbers of complications and assess the need for referrals (28). There should be four BEmONC and one CEmONC-unit covering a population of 500,000 people (27). This structuring is intended to relieve the pressure on the hospitals and form models also for the rural communities where hospitals are very scarce. The basis for BEmONC and CEmONC-units is the existing evidence that women identified as healthy and thus low-risk, have a high probability to deliver normally and without any intervention. These women should therefore not overload the referral system but be safely helped out at BEmONC-units.

In addition to all the obstetric signal functions, the BEmONC- guidelines underline the importance of clinical decision-making and respectful care for women in labour. The guidelines also include supportive supervision of practice and problem solutions after completing the BEmONC training (28). How these guidelines are interpreted and carried out will vary in the different health facilities, and among the midwives.

According to Nesbitt et al (29) there has been a neglect of both routine delivery and postnatal care in the implementation and establishment of BEmONC signal functions and units. To improve the continuum of care new signal functions have been added and in addition they all have been grouped into four dimensions; Routine delivery care, Emergency Obstetric Care, Emergency Newborn Care (often put together to Emergency Obstetric *and* Neonatal Care) and Non-medical aspects. Also Gabrysch et al (30) call for an increased focus on the newborn as well as for routine delivery care. The new signal functions include among other monitoring the delivery by using a partogram, infection prevention measures by use of gloves, reliable water supply, soap and clean toilets as well as active management of the third stage of labour. By quality routine care complications can be prevented and early interventions taken before a complication occurs.

Nesbitt et al did an assessment of health facilities in Ghana of the quality of both routine and emergency intra partum and postnatal care. A unit could provide a high standard of emergency obstetric care but poor care in uncomplicated deliveries, and vice versa. This gap in quality needs to be further assessed and evaluated (29).

Education of midwives

A qualified midwife should be educated and trained to competency through the International Confederation of Midwives' (ICM) Essential Competencies for Basic Midwifery Practice, be legally authorized and has continued the practice over time (31), and the title "midwife" needs to be protected as professional (5).

In 2010 ICM published a Global Standard for Education of Midwives that included education of at least three years after completing secondary school or 18 months following nursing/other health care professional. The curriculum includes both theory and practical skills from a variety of clinical settings (31-33).

In 2006 Ethiopia addressed an acute shortage of the midwifery workforce and education of midwives was given top priority. In order to reach the MDGs 4 and 5 the country has set a goal to increase the education of midwives to approximately 8600 by 2015, and further 9800 by 2020, and to provide BEmONC to all women in health centres and hospitals (1, 5, 32, 34). The number of midwives has increased from 1275 in 2008 to 4725 in 2012, and the aim is to more than double the numbers from 2008-2020 (30).

91 % of Ethiopian midwives are trained on diploma level. This is a three years direct entry education after 10 years of schooling. 8% have a bachelor in midwifery and only 0.2% of the midwives have a Masters' degree (32). Nurse education is a three year programme and includes maternity nursing care but it is not clear if this entails midwifery skills (35).

The Report on the National Situational Analysis of Pre-Service Midwifery Training in Ethiopia showed constraints and challenges in different levels of the midwifery education (35). The curriculum for midwifery education is not based on a national or international competency standard. Despite good intentions the proportion of theory and practice in the education is 75% versus 25%, not the intended 30 % theory versus 70% practice (35). Ethiopia had five training institutions for midwives in 2000 and the number increased to 46 in 2012, where seven of these were private (32). But quality instructors, materials and clinical learning environment have not increased proportionately. Both teaching qualification and experience among the tutors were poor, and in 23% of the midwifery schools there were no midwife tutor at all (35). The ICM “Global Standard for Midwifery Education” recommends that the clinical midwife teacher/instructor has a formal competence in clinical teaching (36). Overburdened learning sites and insufficient number of cases for the student has compromised the quality of the education. As a result of this most of the students graduate without having attended the expected and required number of 40 uncomplicated deliveries (16, 32, 35). Not before 2011 the curriculum for midwives was revised to include basic emergency obstetric care including prevention and treatment of PPH (32).

The criteria for recruitment of students were unclear. Many of the tutors indicated that very young students with poor knowledge and low academic opportunities hindered an effective training process. Infrastructure and equipment were lacking in most of the training facilities and clinical and theoretical tutors were lacking in all colleges. Health facilities were overcrowded with different cadres of students and little opportunity for the individual student to acquire the practical training. (32, 35).

Students themselves reported that they did not want to become midwives but were assigned into midwifery by the Ministry of Education and Health. They expressed concerns regarding serious difficulties in the practical training including lack of tutors during apprenticeship and shortage of

teaching facilities and aids such as libraries and evaluation. In addition the students had little opportunities to observe and practice even essential midwifery, e.g. normal deliveries and performance of important procedures such as episiotomies (35). The report concluded that midwifery has to be redefined in Ethiopia as an autonomous clearly defined profession as it is internationally, and that midwives as a profession can contribute to an achievement of the MDG 4 and 5, both quantitative and qualitative (35). A detailed revision and definition of the national core competencies is necessary with a relevant curricula, a clearly outlined midwifery training program as well as improvement on the situation on the basic level (35).

These findings are similar to a study conducted in Ghana, Malawi and Ethiopia in 2010, where Fullerton et al (33) looked at midwives' education and on the midwifery workforce. In contrast to Ghana and Malawi, where students were highly qualified and expressed interest in midwifery, students in Ethiopia had the lowest qualifying test score and in addition many did not have any interest for or knowledge in midwifery. Nevertheless they were assigned to midwifery education. The Ethiopian curriculum for midwives was developed by The Ministry of Education with little input from midwifery educators (33).

A study by Getachew et al (37) conducted in 18 Ethiopian hospitals in 2011, showed that the major factor affecting the quality of emergency obstetrics and neonatal care was poor knowledge and skills among birth attendants. Birth attendants in this setting were doctors (5%), midwives (55%), nurses (12%) and others (students etc, 8%). Around 60% of the birth attendants had insufficient knowledge of PPH, more than 70% were lacking skills to prevent or manage the condition and only 55% had knowledge about basic neonatal care. They also expressed an extended need for supervision, both during education and in their daily work in the delivery ward.

Ethiopia has a relatively high number of male midwives (22.5%) and most of them have a bachelor's degree in midwifery (32). The proportion of male midwives differs between regions. In Benishangul-Gumuz in Western Ethiopia the percentage of male midwives is 64.5%, while in in the

Capital of Addis Ababa the percentage is 14%. The impact of a higher number of male midwives, their acceptance by both women as communities and how their behavior differs from female midwives need further review (32).

It is estimated that approximately 334,000 more midwives are needed globally to reach the MDG 4 and 5 (38). However, the number *and* the quality of care must be conformed to reach the goal with the best quality midwifery care to every woman during pregnancy and childbirth (5). According to State of the World 's Midwifery, the study from Nesbitt et al and the recently released action plan Every Newborn there is a gap between competence, access and coverage and quality of service in many low-income countries (2, 5, 29).

3. Study rationale

Inadequate knowledge and skills

Despite the country's claim to be on track in reaching the MDG 4 by 2015, the burden of maternal and child mortality in Ethiopia is still high. Women's access to a skilled birth attendant in a skilled environment is still inconsistent and needs to be improved in order to make progress in reaching the MDG 5 (39). However, the quality of education of midwives in Ethiopia is insufficient both theoretically and practically (35). Studies showing both lack of knowledge and skills among midwives (23, 37). Poor competence leads to failure to handle obstetric problems in the BEmONC-unit and further many women being referred to hospital while in labour (40). To address this problem an intervention study was started:

The intervention study to improve knowledge and skills

The intervention study "*Improving maternal and newborn outcomes in Addis Ababa through skills training: an intervention cohort study*" was a skills and simulation based training study that started in Addis Ababa in spring/summer 2013. The study was a collaboration between the University of

Bergen, Norway, Addis Ababa Health Bureau, Ethiopia, and Jhpiego, a non-profit health organization affiliated with the John Hopkins University in the US.

The general objective of the intervention was to study the feasibility and effectiveness of implementing a simulation based skills training programme for health professionals to improve the quality of BEmONC in Addis Ababa. My study is linked to the intervention study and addresses quality of care.

The focus of my study

I participated in the first BEmONC-training course in Addis Ababa in May 2013, in preparation for my study. I got to know some of the midwives, I participated in the simulation training and discussed professional issues with some of them (Appendix I). Initially I aimed to understand the midwives' experience and confidence after the BEmONC-training. However, during my study in the fall 2013 other themes emerged and seemed more central in understanding the quality of care provided.

Through a qualitative study I aimed to explore how midwives in health centres in Addis Ababa experienced providing quality health care for women and their babies through pregnancy, childbirth and in the postnatal period and what challenges they encounter in their work. Knowledge about to which extent midwives at health centre level are capable to provide these services is scarce. Despite an increased focus on quality of health care service, there is little documentation of the health care providers' own perceptions and experiences of providing health care.

I will in particular explore the midwives' knowledge and skills, confidence and quality of care provided. I will explore their daily life and challenges in the health centres in Addis Ababa, to look for determinants that may still prevent Ethiopian women and their babies from obtaining quality care in labour and childbirth. My study will address this issue through the aim, objectives and research questions below.

4. Aims and objectives

Aim

To increase the knowledge about midwives' challenges of providing quality care during labour and childbirth in health centres in Addis Ababa

Objective 1 To explore the midwives' working environment and daily routines

Objective 2 To explore how the midwives manage labour and childbirth

Objective 3 To explore how midwives experience their own skills and confidence in emergency situations

Research questions

- How is the working environment of midwives in relation to human, medical and non-medical resources?
- How do the midwives develop and share professional knowledge and experience?
- How do the midwives use routines and guidelines in the performance of midwifery?
- How do the midwives communicate and interact with the labouring women?
- How do midwives handle emergency situations such as PPH and resuscitation of the neonate?

5. The study setting

Country profile of Ethiopia

Ethiopia is a poor farmland in Eastern Africa with high plateaus and deep valleys (Figure 1).

Roads are bad and poorly developed and transportation is difficult. Of a population of

approximately 96 million, almost 80% are living in rural areas and three million in the capital of Addis Ababa (41).



Figure 1: Map of Ethiopia (Source: www.ezilon.com)

Despite an economic growth of 11% annually the past eight years is Ethiopia one of the poorest countries in the world. 29.6 % of the population are living in extreme poverty and the national poverty line of less than 0.6 \$/day (2010). The country's per capita income is 410\$, which is lower than the average for the region (42). Today 65% of public expenditure is used for improvement of such as education, health, water and electricity supply, agriculture and roads (39, 42). The general level of education is low with a literacy rate of only 39% and only 73.8% of all children complete grade 8 (41, 42). The main income comes from agriculture such as cereals, coffee, pulses and oilseeds and with coffee as the main export.

Health profile

The health among the population of Ethiopia in general - and in women and children particular- is poor. The main health concerns include in addition to a high maternal and child morbidity and

mortality, conditions such as malnutrition, malaria, tuberculosis and HIV. The prevalence of HIV is stable at 2.1% (2008) with respectively 7.7% and 0.9% in urban and rural areas (43). Together with Hepatitis B these infections have serious impacts on pregnant women and their children. A cross sectional study from Addis Ababa showed that 3% of labouring women were Hepatitis B positive. Both HIV and Hepatitis B transmit either horizontally through sexual and/or contact with other body fluids, or vertically from infected mother to child (44).

The burden of disease is 350 deaths per year/1000 population which is significantly higher than in neighbouring countries in Eastern Africa, and only about 5 % of the country's GDP is spent on health (45). Poverty, low education, poor infrastructure and insufficient access to clean water and sanitation are some of the determinants for ill health, and contribute to the continued poor general health status in the country. The life expectancy is 53.4 years for men and 55.4 for women (46).

The MMR in Ethiopia is among the highest in the world, 420/100,000 live births, ranging from 210- 630/100,000 (1, 45, 47). The risk of dying in relation to pregnancy and childbirth is 1: 67, meaning that 13,000 women are dying each year. The health care system is not sufficient and effective, and in addition there is a weak referral system from health centre level to hospitals and inadequate availability of BEmONC- offering basic emergency obstetric and neonatal care, and CEmONC-units that in addition have access to anesthesia and can perform a Caesarean section (46).

The neonatal mortality in the country has just marginally declined from 49/1000 live births in 2000/01 to 37/1000 in 2011/12, but varies between different households (39). Poverty, lack of knowledge and information, long distance from and lack of transport to health facilities and cultural practice are among other factors that prevent women from seeking health care, both for their children and for themselves (39, 48).

Maternal and perinatal health care in Addis Ababa

Addis Ababa is the capital of Ethiopia with nearly three million inhabitants. The city is divided into ten sub-cities, all with their own health departments managing the hospitals, health centres and health posts, and with Addis Ababa Health Bureau as the responsible administrative unit (49). Maternal and child health care is different in Addis Ababa than from the rest of Ethiopia. In the city more than 80% of women in Addis Ababa deliver in a health facility and maternal and perinatal health care in Addis Ababa takes place in health centres and in referral hospitals (33, 46).

A health centre takes care of simple medical and surgical problems as well as maternal and child health care: antenatal and postnatal care, deliveries, immunisation and follow up of neonates and children. Antenatal, intra partum and postnatal care is free of charge in the health centres. The staff in a health centre consists of health officers, nurses, midwives and pharmacists. Healthy pregnant women in Addis Ababa are supposed to deliver in one of the health centres in their sub-city. Women with known complications such as preeclampsia or twins are referred to hospital before labour, and complications in labours are referred immediately.

There are currently four to six health centres in each sub-cities of Addis Ababa. These are defined as BEmONC-units and are linked to a referral primary hospital, which offers CEmONC-functions. Despite this structuring, the maternal and neonatal morbidity and mortality in Addis Ababa remains high (40).

Organisation of health care and referral structure

The organization of health care service in Ethiopia is divided in three levels. The primary care level is characterized by a primary hospital (serving approximately 60,000-100,000 people), the health centres

(1: 15,000-25,000 people) and the health posts (1: 3000-5000 people), all linked to each other by a referral system (46). These three health facilities form a Primary Health Care Unit (PHCU).

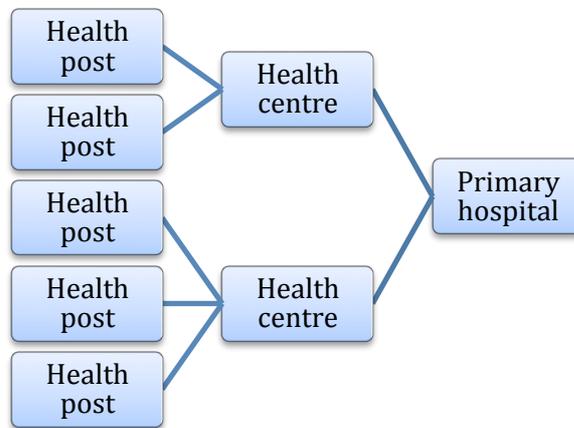


Figure 2: Illustration of the structure of Primary Health Care Unit in Ethiopia

The target is that all health centres should provide BEmONC, however many of them are just partly functioning (33, 41). The second level of care is the general hospital covering a population of 1-1.5 million people, and the third the specialized hospital covering a population of 3.5- 5 million. In addition are private actors as well as national and international NGOs playing a significant role in the health care service delivery in Ethiopia (46).

In 2013 Addis Ababa had 41 hospitals, 28 health centres and 35 health posts (50). To improve the access to BEmONC for women and children the numbers of health centres are increased (46, 49).

Unexpectedly many women are referred from BEmONC to CEmONC-units in Addis Ababa (40). There can be several reasons for this, such as how guidelines for referrals are practiced, lack of competence and staff, or lack of public confidence to the health centres and a demand from the labouring woman to be referred. Travelling between the different health facilities in Addis Ababa is demanding and takes time. Both the traffic and the road conditions are poor and are aggravated by a large road and train construction work going on.

6. Theoretical perspectives

Evidence-based knowledge

Evidence-based medicine and practice have for many years been a hot topic in clinical medicine; how to teach it and how to incorporate it into practice (51). Evidence-based practice is defined as conscientious, explicit and judicious use of “the current best evidence in decisions making for the care of the individual patient” (51). In practice this means making clinical decisions by using the best research evidence, clinical expertise and the patients preferences, in the context of available resources. Clinical expertise involves judgement and proficiency acquired through clinical expertise and practice, in a thoughtful identification and compassion of the individual patients’ problems, rights and preferences in medical decisions (51).

Clinical practice in health care should be evidence-based (52). However, evidence-based knowledge alone is not enough to make decisions since all practice is influenced by individual judgement, the context the health professionals’ experience and by ethical considerations, in addition to the patients’ needs and rights. This is called *knowledge-based practice* and includes evidence, experience and the patients preferences (52).

Guidelines and protocols

Guidelines are recommendations for practice and shall function as a support for decision making, and are based on best available knowledge. Protocols are instructions in what to do in a particular situation. Protocols are similar to guidelines but give less room for individual judgement and are often produced for less experienced staff (52). One example from the health centres is the guidelines for pre-labour rupture of membranes. Pre labour Rupture Of Membranes (PROM) is defined as rupture of the membranes from gestational week 37+0 without establishment of contractions (53). Rupture of membranes indicates that labour is

started and should be completed within a reasonable time. No contractions for more than 24 hours increases the risk of chorion amnionitis, infection in the uterus, a situation that puts both the woman and the foetus at risk (54). Previously were all women in the health centres with PROM and no contractions after eight hours referred to hospital for induction of labour. A new procedure for the management of PROM was introduced in the health centres during the spring 2013. The woman was observed in the health centre and if there were no active labour after six hours she started treatment with antibiotics. If the labour did not start within twelve hours, the woman was referred to hospital for induction.

Experience-based knowledge

Experienced-based knowledge is a cornerstone in health care and is developed and acquired through practice and requires that the health professional can find, evaluate and apply research into practice in the meeting with the individual patient. How the individual acquires and develops this knowledge varies (52).

Tacit knowledge

What distinguish the expert midwife from the less experienced one is the sense of intuition, or tacit knowledge (55). The term was first introduced by Michael Polanyi in the book "Personal knowledge" in 1958 (56). Tacit knowledge is defined as a knowledge that is not formally taught, that cannot be explained by words, is difficult to formalize and to communicate. It is an individual knowledge built on experience over time, ideas, emotions and values (57). Through personal contact knowledge will be transmitted from the experienced to the beginner. This cultural transmission happens in a personal master/apprentice-relation, where the beginner gradually will distract her/himself from the

master and adapt the tradition her/himself. This apprenticeship is seen as ideal for the continuation of the tradition of knowledge (56).

Midwifery is a practical profession where both the theoretical knowledge, practice and skills development including dexterity are essential to save lives. How the individual midwife is learning depends on her/his participation in practice. Blåka and Filstad (57) hold that learning depends on to which extent the individual is participating in activities in the ward and interacting with colleagues. To develop and acquire skills and knowledge it is important that the individual- here the midwife- is engaging her/himself in the activities and also are invited into the different learning situations in the ward (58).

Role models

Midwives need good role models when starting their professional lives. Role models are experienced midwives that the newcomer learns from and looks up to because of her/his behaviour, knowledge and skills and relationship with others. Through interaction and communication with the role model, the midwife will observe, imitate, practice and identify her/himself with the role model and learn how to work, gets hints, advice and suggestions and starts creating her/his own professional role (57). The role model shares stories and good and bad experiences from her/his own professional life. To be able to name, frame and judge practical situations, the midwife needs in addition to the theoretical knowledge, a broad spectre of experience that require handling several problems at the same time. Together with an experienced colleague will the midwife gradually adopt and develop skills and confidence (57).

According to Polanyi rules are needed to perform practical skills (56). These rules are not always defined but function as a “rule of thumb” and as a guide in development of skills. Some rules are socially defined, others not and they change frequently. However, in all

organizations there needs to be rules in terms of quality criteria, rules for what is good and not good practice in the ward. To perform practical skills the individual needs to have internalized these criteria, i.e. learned the norm, language, culture, duties and rights (56). Practical knowledge distinguishes between *elementary practical knowledge* controlled by strict rules, and *quality knowledge* where the rules are related to the situation and context (56). A practical example could be a multiparous woman with contractions. The beginner examines the woman and finds a cervix of 3 cm, and will since the cervix is just 3 cm and according to a theoretical definition, may say she is not in labour and shall not be admitted. The expert knows that even though the cervix is just 3 cm, it is ripe and thin, and the expert knows from experience and numerous examinations that the cervix and the progress of labour in multiparous woman is different from a primi para. The expert will define the woman as in labour.

The context

The model of knowledge-based practice is enclosed in a context, the environment where the practice takes place. The context is linked to issues like resources, culture, ethics and priorities and affects all the factors in the knowledge-based model. This means that e.g. the same evidence-based knowledge can contribute differently in different settings (52).

In this model the users should participate in decisions and take an active choice regarding treatment and their own health. Their perceptions and wishes must be taken into account and it is the health care providers role to facilitate for good decisions (52). However, in this study I will discuss the concept of evidence-based knowledge, experience-based practice and the context, and not focusing on the users perspective.

7. Method

Qualitative study design

Qualitative research methods plays an important role in health service research, and gives-unlike quantitative research-an approach to understand people's experiences and practices (59). The complexity in health care service today, with increased specialisation and diversity among health professionals as well as demand and expectations from the users, has triggered new and different research questions about health as well as health care. The qualitative approach in health service research gives access to areas quantitative research do not reach, such as how health care is organized, interaction between health care workers and clients, and the roles of health professions (59).

A basic characteristic of qualitative studies is that they aim to answering questions of "what", "how" and "why" related to the meaning of a social phenomena rather than "how many" and "how much" as in quantitative research (60). In health care research, qualitative methods investigate how illness, health and health service are experienced and perceived by the individual and the community and how health care is practiced (60), in this case how professional midwives are providing maternal and child care in the maternity ward, *what* challenges they face and *why*, and *how* they are managing these challenges. The main data collection methods in qualitative research are in-depth interviews, participant observation and focus-group discussions (60).

A qualitative approach was appropriate for my study. I was interested in the midwives' experiences, their perceptions and stories. I collected my data by participant observation in the maternity ward, by semi-structured and narrative interviews and small talk. During the interviews I encouraged the midwives to tell me stories from their professional lives. In addition small talk with others in the health centre gave me valuable information. The use of multiple methods with participant observation, semi-structured interviews, small

talk and narratives complemented each other, increased the validity of the findings and gave the data collection a natural triangulation (60) .

Selection of study sites

My fieldwork took place in three out of 10 health centres that were part of the intervention study in Addis Ababa from the end of August till mid-November 2013. The three health centres were selected according to convenience and number of deliveries, as described below. During this period many health centres in Addis Ababa were lacking water and /or electricity and labouring women were referred to other health centres. Road conditions and transport were also very difficult in Addis Ababa in that period.

I chose health centres A and B that were located quite close to where I stayed. Health centre C was chosen because of the relatively high number of deliveries. I spent most of my time in health centre A because of the relatively high activity and the English language skills among the staff.

Health centre A had approximately 1000 deliveries per year. There were eight midwives, six males and two females. In addition there were two nurses (one male, one female) who conducted deliveries. The number of staff increased during my stay, two males and one female midwife started working in the health centre in the end of the period. I stayed there for six weeks. (Three + three weeks)

Health centre B had approximately 390 deliveries per year. There were nine midwives, three males and six females. This means that each midwife in average will conduct 43 deliveries a year, or three, four deliveries every month. There were no nurses working in the delivery ward in health centre B. I stayed there for three weeks.

Health centre C had approximately 1300 deliveries per year. There were seven midwives (two males, five females) and three nurses (one male). I stayed there for two weeks.

Selection and recruitment of informants

All health centres included in the study were informed both orally and in a letter. When I returned in August 2013, I used the first couple of days to visit all the health centres included in the study together with my co-supervisor and the research assistant, and I presented myself and my study. I met again midwives who had participated in the first BEmONC-training in the intervention study and who I got to know during the course in May 2013. This was a benefit both for the recruitment of informants for the interviews and for my acceptance in the different health centres. In addition were the informants other midwives working in the different health centres. In cooperation with my co-supervisor I decided which health centres I wanted to include in my study.

I did a purposeful recruitment of the informants to try to include a pre-determined variety and get a maximum variation (60). I chose a total of 11 midwives with different experience and different gender. The inclusion criteria were that they had completed the BEmONC-training course and were able to follow a conversation in English so that I could conduct the interview myself. Three of the informants were leaders in the respective health centres. The informants were all asked orally by me to participate and they all had to give an informed consent (Appendix III).

Description of informants

The participants in the interviews were eleven midwives, six males and five females. Four of the females were married. All the male midwives were single. The median age was 25 years

(range 22-46 years) and the median experience as a midwife was 5 years (range 1.5-16 years). The females had a median age of 28 and median 7 years experience as a midwife. The males' median age was 25 years and their median experience as a midwife was 3 years. I have given the informants Ethiopian names according to gender in alphabetic order (Table 1).

Table 1: Characteristics of the informants in the interviews

Informant	Age	Sex	Civil status	Years of experience	Years in this HC
1. <i>Abbay</i>	29	M	Single	6	3
2. <i>Biniam</i>	29	M	Single	6	3
3. <i>Christos</i>	24	M	Single	1,5	1
4. <i>Dagmavit</i>	39	F	Married	15	2
5. <i>Ekele</i>	22	F	Married	5	11 months
6. <i>Fekre</i>	25	M	Single	2	1 ³ / ₄
7. <i>Genet</i>	46	F	Married	16	13
8. <i>Hagos</i>	25	M	Single	2,5	2,5
9. <i>Ihite</i>	28	F	Married	7	1
10. <i>Kibe</i>	24	F	Single	1,5	1,5
11. <i>Leul</i>	23	M	Single	3,5	1,5

I did three interviews in health centre A, five in health centre B and three in health centre C. I did not want to interfere too much in the daily activity in the wards and I did the interviews when appropriate and when there was time. This is why the number of interviews is unequal in the different health centres.

Data collection

The experience from the BEmONC-course in May 2013 gave me important information to develop the interview guide for my fieldwork interviews (Appendix I). This consisted of questions related to the research questions such as how they experienced the BEmONC-training course, the relevance and implications of the course for their daily work as a midwife. I was interested in the different parts of the BEmONC-training, what they might be missing in the course, challenges and teamwork. I asked them about their introduction into midwifery, the daily life in the maternity ward, about practical procedures and routines. In addition I asked about the difficult situations in midwifery; e.g. if a mother or a baby dies and their reflections about this. In addition many of the midwives spontaneously told me stories from their professional life. However, the guide was changed through my fieldwork since both research questions and specific objectives changed during my fieldwork that took place for three month, from August until November 2013. Issues such as working conditions, deficiencies in the ward as well as their narratives became more prominent. I also developed an observation guide for my participation in the health centre (Appendix II). This consists of questions related both to normal labour and childbirth as well as prevention and treatment of complications such as PPH and resuscitation of the newborn.

Participant observation during fieldwork

Observational methods are distinguished between how much the researcher participates in the field (60), from complete participant, participate as an observer, observe as participant or –in the other end- be a complete observer. The role as *participant as observer* and *the observer as participant* is described as classic ethnography, where the researcher is present in a community for a shorter or extended period of time and take part of people's daily life,

watching and observing what people are doing, listening to conversations and small talks and asking questions about the issues of interest (60).

I was present in the delivery ward in the health centre every day from Monday through Friday for six-seven hours during daytime. I participated in all the daily activities in the delivery ward such as antenatal and postnatal care, labour and deliveries. I followed approximately 30 women in labour and attended around 20 deliveries together with the midwives. If there was a woman in labour, I followed the responsible midwife in the observation of the woman, interaction, assessments, care and advice. I was present when she delivered and I tried to take an active participant role. In the delivery I often found it natural to either care for the labouring woman with encouragement and consideration, or take care of the neonate by such as weighting and measuring.

In the antenatal care I helped the midwife with assessment of the pregnant tummy, the foetus' position and heartbeats or measuring the woman's blood pressure. Some could speak a few words in English.

Women came to the delivery ward for postnatal care both for their babies and themselves. The midwife checked the baby and its umbilicus, asked the mother about such as breastfeeding and the wellbeing of the baby. They discussed vaccinations, family planning and general health issues. I participated and tried to establish contact and confidence by small talk and care for the baby.

Participant observation features that the researcher has an open attitude and is interested in other people, is trying to understand the social structure such as political systems, material culture as well as religious beliefs (60). I found it important trying to be a natural part of the environment and interacted with all the staff, from cleaners, health care providers, administration staff and drivers. I often experienced that someone was holding my hand. They all taught me some more Amharic words and were laughing every day of my

pronunciation. During coffee breaks a lot of different issues came up and was discussed such as sexuality, marital and religious issues. Sharing this with me made me feel accepted and included.

I was carrying a notebook where I wrote notes during the day and after work I wrote detailed reflections from that day. I used a local gown to look more like the other staff. I was wearing a badge with my name and profession, even though this was not common. For me it was important to let everyone know who I am. I also participated in activities like cleaning and preparing equipment for deliveries and eating together with the midwives.

I discussed a lot with the midwives and I was often asked for a professional advice or to assess the woman. I made it clear that I was not there as a midwife, and that I could not conduct deliveries. Nevertheless there were situations where it was necessary and appropriate that I intervened and assisted the midwife. All women were informed about my presence and I asked them for acceptance to observe or to assess.

Semi-structured and narrative interviews

A qualitative research interview is defined as a structured conversation where the researcher is leading the questions based on needs for data, interests and research questions (60). An interview can be structured, where the researcher is strictly following specified questions, or, on the other side of the scale, informal interview that is more like a conversation. In between these are the most common interview types in qualitative research, the *semi-structured*, *in-depth* and *narrative* interviews (60). In a semi-structured interview the interviewer sets the agenda and topics. The researcher is often using probing questions, which means asking questions such as *Can you describe this more exactly? Can you elaborate on this?* to try to get a deeper understanding of the answer or subject (60). In the in-depth interview it is important to give the informant enough time to issues that are important to the informant. In the narrative interview the interviewer tries to

facilitate for the informant to tell her/his story from her/his “real life”. The narrative interview is particularly interesting both as a description of peoples experiences and perceptions and also as an analytic device (60).

The interviews were an important part of this study since experiences as well as stories from labour and childbirth very well describe the role of both the midwife, the daily life in the ward, priorities at work, the labouring woman and the delivery. It was also important for the understanding of *how* and *why* they are practicing as they are doing, and what challenges they are facing.

Performance of the interviews

The interviews were conducted from September to November 2013. They all took place in the respective health centre during the last weeks of my stay in that health centre. This gave me the opportunity to get to know the midwives, observe and experience their roles as well as the daily activity in the ward before I conducted the interviews.

All informants accepted immediately being interviewed. I used a tape recorder during the interviews. One midwife was asking why this was necessary and wanted to hear the interview afterwards. When she heard a part of it, she accepted. Eight of the interviews were performed in English, not in Amharic, which is the first language in Ethiopia. I used an interpreter in three of the interviews. I am aware that details can be lost when English is not the first language. One informant (number 10) insisted to do the interview in English, even though her English was not good. The interpreter participated in the interview and helped when necessary. The three interviews performed in Amharic were first transcribed from the recorder into Amharic and later translated to English. Also during this process some details might fell out due to interpretation.

I started the interviews with some small talk. I informed them again about my research and asked if they had any questions. How anonymity and confidentiality would be secured and their possibilities to withdraw from the study at any time were repeated. I started asking questions with *how* and *what*, and where needed probing with *why*. In the first interviews I used the interview guide quite strictly, later on it was adjusted and used more as a list of remembrance and I tried to make the interview like an informal conversation. I therefore adjusted the interview guide as I went along.

I did not take any notes during the interviews. After each interview I tried to immediately write down things that were not recorded, such as smiles, cry, nodding, different voices. In the end of each interview I asked them if they had a story that had made an impression on them as midwives. They were eager to tell me different stories from their midwifery life, so called narratives, and also general concerns. This gave me a broader understanding of their challenges in their daily lives as midwives.

Most of the interviews lasted for approximately one hour, one only half an hour. The informant in this interview did initially hesitate to participate. When she decided to participate, she answered quickly and did not want to add much to the questions. In average each interview consists of 3500 words (1500-5300 words). I did a follow up interview in two of the interviews because I missed details in the first ones.

After ten interviews I gained little more. The answers did not bring in new perspectives and tended to be repetitive. I took this as a point of saturation even though I retrospectively realise that I could have developed the interviews and included additional questions to illuminate other issues that I learned through the participant observation. However I continued with number 11, since I already had made an appointment with the informant.

The research assistant/interpreter

I used a retired Ethiopian midwife as my research assistant/interpreter. For me it was important that the interpreter had knowledge in obstetrics, both because of the medical terminology and also because of practical situations in the delivery room. This midwife was 57 years old and had until July 2013 been working in health centre A and knew both this site and the health care system in Addis Ababa very well. She had also had different positions in organizational work for midwives where she was well known and highly respected.

We tried to act like a team in the delivery ward. We both knew the importance of being present without interfering with the situation and we tried to blend naturally into the environment and the daily life. She participated in interview number 4, 5, 10 and 11, and she translated three interviews from Amharic to English.

8. Ethics

Ethical clearance

The study protocol for the intervention study has been approved by the Addis Ababa Health Bureau in Ethiopia and by the Regional Ethics Committee for Medical and Health Research in Norway (REK Vest). An amendment for this sub-study was submitted to and clearance given by REK Vest (Appendix IV). On the Ethiopian side this sub-study needed no additional clearance. The study carefully observed principles of the Helsinki Declaration, the Norwegian Research Ethics Act and the Health Research Act (61-63).

Informed consent

Participation was voluntarily. The midwives participating in the study were orally asked to participate in the study and when accepted they all had to give a written consent (Appendix

III). I read the consent form for them to be sure that they had understood the content. They were in addition informed orally that they could withdraw at any time, without any consequences. Confidentiality was carefully observed and interviews and notes were safely stored during data collection and reporting. When writing the reflections and in the transcriptions of the interviews I gave all the informants Ethiopian names according to gender. The women followed in the health centres were all asked to allow my presence during labour and childbirth.

The computer was locked in my room and is protected by password. The research assistant was informed and acknowledged the importance of, and responsibility for the confidentiality and anonymity of informants. The research material will be anonymized within the end of 2014.

9. Analysis

I found thematic content analysis appropriate for this study. This is a common approach when exploring an association between behaviour, attitudes and experience. By analysing the content of the text, categorize it and put it together in themes presented the key elements from the informants (60).

I was interested in more than “practical information” about their lives as midwives. The interviews including the narratives together with the written reflections from my fieldwork were the basis for my analysis. My findings are presented as a monograph.

Transcription of the interviews

I started to transcribe some of the interviews already when I was in Addis Ababa. This was time consuming since in addition to the interview itself expressions such as e.g. hesitation,

laughing and crying should be included. I preferred to do the transcription as soon as possible after the interview, while “fresh” and I remembered details. That gave me a possibility to go back to the informants when there were unclear answers or I needed additional information. Every day I wrote field notes from that day in the ward and more detailed reflections in the evening.

Lindseth and Norberg (64) underline the importance of reading the text several times to get the essence of it. In this way the text “speaks to you” and by reading both the interviews and the reflections several times different meanings and details emerged.

Identification of codes and meaning units

After returning home I started the structural analysis of my data. By using a thematic content analysis I identified meaning units and formulate themes from the written text. A meaning unit could be a part of or a whole sentence, and a theme a ”red thread” that penetrated either parts of or the whole text (60, 64). I went through the text sentence by sentence, reading both interviews and fieldwork notes several times. I extracted words and parts of a sentence that I found important and interesting. I called the meaning units *codes*. Through reflecting on similarities and differences in the codes I condensed them into *categories* and further into different *themes/content areas* (Figure 3).

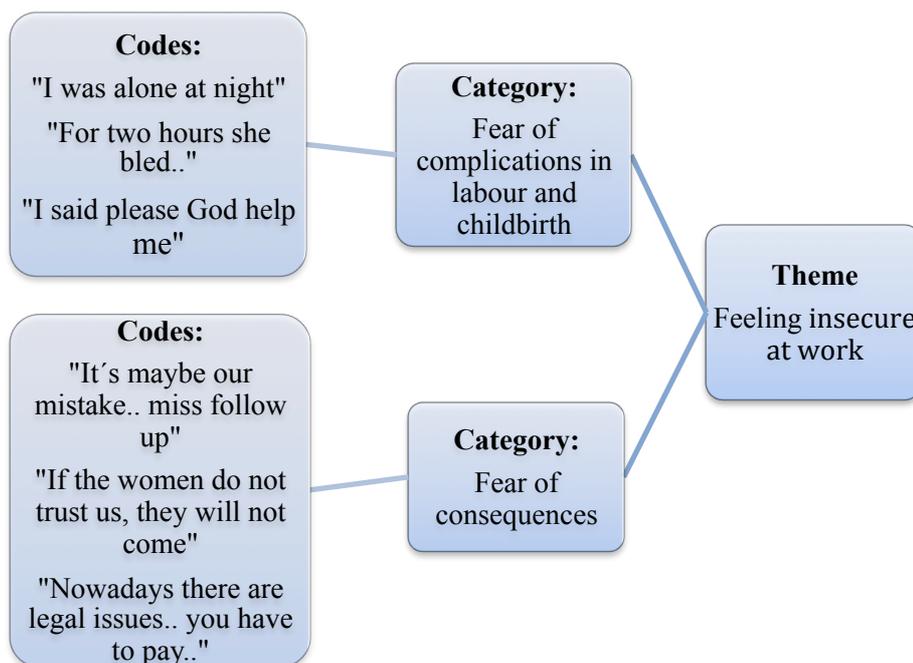


Figure 3: Example from the coding process

I was aiming for an inductive analysis where the categories and themes are built up from the empirical data. I tried to ask questions to the text and gather part of it that further should become sections of the text.

I did the coding process manually by using a large roll of paper and coded, categorized and made themes from the interviews and the fieldwork reflections. Doing it this way gave me a close relation- and ownership to my data. The themes I ended up with were:

Environment of care in labour and childbirth, Frustration and lack of motivation for midwifery and Feeling insecure at work.

10. Findings

In the following section I will present the themes. The first theme *Environment of care in labour and childbirth* includes a description of health centre A and the daily life in the

maternity ward in which the midwives practice and develop their knowledge and skills. Then follows the themes *Frustration and lack of motivation for midwifery* and *Feeling insecure at work*. I start the presentation of the third theme with a description of a normal delivery. This description will provide an important context to understand the daily challenges midwives are facing when providing care for women in labour and childbirth. The themes are presented in a natural order, through quotations and cases from the observed data.

Environment of care in labour and childbirth

The health centre

Health centre A is located in a business sub-city of Addis Ababa. It is sheltered by a fence and there is a guard in the gate as in all the health centres. In the courtyard there are three containers; one is functioning as an archive, one as an office and the third one is functioning as a cafeteria. Here they offer coffee, tea and local food during the day and the women working there serve the staff *injera* – the traditional food, for lunch. Outside the maternity ward is a small shelter under a roof where relatives are waiting. The delivery ward is a BEmONC- unit offering basic emergency obstetric and neonatal care. The health centre has its own ambulance, and the referral hospital is approximately 10 - 15 minutes drive away. Due to heavy traffic it could take twice as long during rush hour.

The maternity wing

The maternity wing is a separate part of the health centre. It consists of an admission room, a labour room with two beds for women in first stage of labour, and a neighbouring delivery room with two delivery beds. In one end of the delivery room is a small room where instruments are cleaned after delivery. In the other end of the ward there are two postnatal

rooms with totally seven beds for mothers and baby cots for the neonates. There is a wool blanket, a pillow, a single sheet and an oil canvas in each bed. In addition there is an office and a staff room.

In the corridor there are four five chairs where women can sit and wait. There is a small bathroom for the women with a shower and a toilet, but no sink. There is a staff toilet in the corridor.

The delivery ward is the midwives' domain. Apart from the labouring women and the staff, no one has access to it. Relatives are not accepted neither in the labour room nor in the postnatal rooms and have to wait outside in the courtyard of the health centre. If a woman is referred from the health centre to hospital the midwife informs the woman's family, otherwise there is little communication between the midwife and the relatives.

The staff room

The midwives' staff room is a central and popular part of the health centre, an informal place where "everyone" meets. The midwives meet here every morning for a staff meeting and in addition they use the staff room to take breaks, they eat here, watch TV or just wait for women to come. The door is always open. Staff from other departments frequently comes for a chat and some eat their lunch here. The room contains three beds, a sink, a small fridge and a TV. The midwives sleep here during night duty if there are no women in labour. They all keep their clothes and bags in cardboard boxes underneath the beds.

The tone between the midwives, nurses, administration staff and cleaners is informal and relaxed. Everyone are sharing their lunch and offering "gursha"- feeding each other, a traditional custom and "honor". There is a lot of laughter and joking and they all have a private cell-phone on which they play games and popular music.

Technical and medical equipment

In the delivery room there is a cupboard with equipment such as delivery sets, suturing materials, syringes, gauzes and drugs, always ready for use. Oxytocine for prevention and treatment of PPH is kept in the fridge in the staff room. The health centre does not have Magnesium sulphate for treatment of severe pre-eclampsia/eclampsia even though this drug is on the national list of essential drugs. Often the pharmacy runs out of antibiotics and women who need this have to buy it from outside of the health centre. Gloves are stored on a small table. There is an asphyxia table with heating for care and resuscitation of the neonate, and a manual suction. Oxygen is available from a transportable flask, and an ambu-bag for ventilation of the neonate is kept in a container on the floor. There is a small container for sharps like suture materials and needles. A delivery set ready for use is placed on a small table. This contains a tray, sheets, instruments such as small forceps and scissors, gauzes and equipment for cord clamping. There is a sink in the corner, but no soap.

Even though the maternity ward is relatively newly redecorated a lot of things are not functioning. Most of the time there is no light in the corridor, and since there are no windows in the corridor, it is very dark. Many days there are power outages and water is often lacking. During my whole stay the toilet flush in the staff toilet was out of order and water from the toilet ran constantly on the floor. Newsprint used as toilet paper was often on the floor. There is no functioning sink in the staff toilet. The patients' toilet does not have a sink. There is a container with extra water in the staff toilet used for flushing but not in the delivery room.

Doors in both cupboard and rooms are impossible to close. Elementary things and equipment are lacking. When admitting a woman for labour the midwives are constantly looking for a sheet for the bed and for the only functioning blood- pressure gauge in the ward. The women have to bring sanitary pads themselves in addition to blankets and clothes for the

baby. The women are rarely offered a shower post partum since water is most often lacking. There are no soap or towels available.

Guidelines, registers and patient files

Guidelines for such as PROM-routines, how to resuscitate the neonate and signs and symptoms of infections are hanging on the walls. Some are guidelines such as *Helping Mothers Survive* (65) and *Helping Babies Breathe* (66) others are local and handwritten, e.g. "Common symptoms and treatment of infections". Most guidelines are used as protocols, i.e. there is no individual judgement.

In the corridor there is a big shelf with files of all women who are expected to deliver, or recently have delivered in the health centre. The combined partograms/files of the admitted women are lying on a desk in the delivery room. Here they also keep the birth protocol.

The health centre has both a MamaNatalie and a NeoNatalie simulator for training on emergency situations. They are both locked in a warehouse and just used once during my stay.

Working conditions

During my stay, eight midwives were working in the health centre; six males and two females. In addition to the midwives two nurses were working in the delivery ward. They performed antenatal- and postnatal care and conducted deliveries together with the midwives or alone if the midwives were busy.

The midwives met in the staff room every morning at 08.30. Day duty was from 08.30 until 04.30 p.m. with lunch from noon to 1.00 p.m. Two midwives or one midwife and one nurse were on call together and they continue working during the night and until 03.00

p.m. the next day. The following day they start again at 08.30 a.m. At health centre A the midwives were on duty on average two times per week and had one day off every third Sunday.

Many midwives were in addition working in private hospitals to increase their income, resulting in many of them working double shifts. Despite the general good atmosphere and informal tone the midwives were often tired, and complained about the working conditions. Some had decided to convert to a clinical nurse or a health officer both because of working hours and salary. Being a midwife was said to have a low status in the society. They commonly complained of poor wages and poor career opportunities.

After lunchtime it was usually quiet in the ward and the midwives were supposed to do some odd jobs such as preparing delivery sets and gauzes. During this time, however, the staff enjoyed being together and just relaxing. Music was played on their cell phones and this was the major entertainment during breaks. Some brought their private computers and watched films. There was no Internet access in the health centre.

Daily program and routines

There had often been two, three deliveries during the night and in the morning the two midwives who had been in charge reported about the deliveries and the conditions of the women who were still admitted in the ward. Women stayed in the ward for about six hours after an uncomplicated delivery and the midwives who had been on night shift were responsible for the postnatal care and discharge of these women during the morning.

The other midwives in charge had a schedule of responsibilities such as antenatal care (>36 weeks of gestation), delivery room and postnatal care six days and six weeks post partum. It was difficult to get a clear picture of *who* had the responsibility of *what* since there was little continuity of care. One midwife could e.g. admit a woman and another followed

her up with such as checking the foetal heart rate and contractions, or in the postnatal care where one midwife was checking the baby while the other was talking with the mother.

Antenatal care

Until around 11.00 a.m. it was usually quite busy. Antenatal care from gestational week 36 was provided in the corridor outside the delivery room and started around 9.30. Five to seven women came for antenatal care every day. Their husbands were not allowed in. The midwife informed about the physiology in the last part of the pregnancy, signs of labour and when to come to the health centre, and about danger signs such as bleeding or severe headache. These classes were relaxed and it seemed to be a good interaction and communication between the midwife and the women.

Afterwards every woman had an individual check-up in the admission room. The midwife performed a full physical examination of the woman including measuring blood pressure, looking for oedema and checking the foetus' position and heart rate. The pregnant womb was not measured. All findings were recorded in the woman's file, which was a combined file for pregnancy, birth and postpartum, including the partogram. There was little discussion or questions about previous pregnancies and deliveries. If there was a current problem such as preeclampsia or a primipara with breech presentation, the woman was referred to hospital. The midwife wrote a letter of referral and the woman went with her relatives to the hospital. The ambulance was only used for emergency situations.

Labour and delivery

Labouring women came unannounced and were taken either to the admission room or to a small room outside a bathroom. Since most of the doors in the ward were out of order it was difficult to give room for confidentiality and to protect the women from being exposed. I

rarely experienced midwives counselling each other in the assessment or examination of the women.

Most of the women came to the health centre together with their husband and their mother or mother-in-law. During first stage of labour the majority of the women were walking around outside the ward and the accompanying family were helping comforting her and offering food and drink. There was no tradition for bringing relatives into the delivery ward. All women delivered without an accompanying person and much of the care and support for the women took place outside in the courtyard. Relatives were trying to relieve the pain, comforting the woman and were offering her food and drink. After darkness most of the women were inside in the delivery ward also in the early stage of labour.

Later on in labour many women wanted to lie down and there were often two labouring women in the same room. The midwives were following up by checking the foetal heart rate and sometimes the contractions. All observations such as foetal heart rate, contractions, blood pressure and vaginal examinations were noted down on the partogram. They used the cell phone as a stopwatch to count the foetal heart rate. If there were no labouring women the midwives were sitting around in the delivery- or in the staff room.

When the woman was fully dilated and ready to push she walked to the delivery bed. One midwife conducted the delivery and another assisted. Instruments and equipment were properly prepared, and the midwife dressed in an apron and boots. The gloves available in the facility were all in one big size, which made it difficult for the female midwives to work practically, particularly procedures that require sleight of hand such as cutting the cord and perform the suturing after delivery.

When a woman was delivering, also midwives that were not responsible for the delivery were present in the room. If the progress of the delivery was normal the midwife instructed the woman and encouraged her with “*Aisusch!*” (Be strong!) or “*Gobes!*” (You are

clever!). The other midwives present were commenting on what's going on, especially if the woman resisted or screamed. Otherwise they were just sitting and playing with their cell phones.

The baby was initially put on the mother's chest, but was rather quickly taken away to be weighed measured and wrapped in blankets. The assisting midwife was responsible for this. They recorded to have performed skin-to-skin-contact between mother and child, even though it was just for a few minutes. All women got an injection of oxytocine and the placenta was delivered by active management of third stage of labour, including clamping of the cord, massage of the uterus and gentle cord traction. The episiotomy and/or tears were sutured. After the delivery the responsible midwife immediately cleaned the instruments before sterilization, and did the paperwork. All deliveries were registered in a birth record.

Postnatal care

The woman was resting together with the baby in the postnatal room for approximately six hours postpartum. The relatives brought her food and were waiting outside. Also women who had given birth to a stillborn were resting in the postnatal room together with other mothers and their babies, even though there was an additional post partum room that often was not in use. There was no folding screen between the beds and no room for privacy. Before leaving for home, the mother was informed about breastfeeding, how to take care of the baby and about contraception. She was told to come back in six days for the first postnatal care.

Postnatal care was given six days, six weeks and six months after birth. The women did not have a specific appointment and they all came in the morning around 10.00, queued up in the corridor. The baby was examined and weighed. The midwife took a brief look at the baby's umbilicus, and checked that the mother's uterus was contracted. The mother was

asked about the baby's behaviour, breastfeeding, bleeding and stiches and information was given about such as baby care and family planning. If she complained of problems with e.g. the stiches, she was examined. No one washed their hands between the examinations of the neonates or women. The postnatal care took place in the delivery room, often with a lot of people present. There was no room for privacy or delicate questions.

The coffee ceremony

In Ethiopia "the coffee ceremony" is a very important social arena where news and viewpoints are discussed and exchanged, and this was an important part of the daily routines in the health centre. At all the health centres coffee was prepared in the traditional way every day. Only women were invited to the coffee ceremony. It was nurses, midwives, administration staff and cleaners. In both health centre A and B a male staff member just came for a cup of coffee, and then left. In this setting there was no hierarchy except from serving the coffee to the head nurses first, then me as a guest and then the other nurses, midwives and the cleaners.

The coffee is made on open fire and we were sitting very close to each other around the coffee maker in a small shelter. The conversation was informal and relaxed and there was a lot of laughing.

Summing up

The three health centres I visited were similar in many ways but also very different. The working relations were good and the midwives enjoyed working together. However, the midwives' working environment was characterized by poor working conditions with long working hours, low salary and little incitements at work. Daily routines were organized in more or less the same way with responsibility for antenatal care, labour and deliveries and

postnatal care. However how the midwives coordinated, cooperated and discussed among themselves was different. The midwives generally had little experience and role models were lacking. There were little supervision, guidance and discussion among the midwives, and many of them struggled with their motivation. There was however an exception. In health centre C, the head of the delivery ward was an experienced midwife who was teaching and helping the young midwives in assessment and treatment of the women. She was always available to help or give advice, and she was an important role model for the other midwives with her experience and expertise.

Frustration and lack of motivation for midwifery

Frustration and lack of passion for midwifery were prominent both during the interviews and through my observations of the midwives. This was related to lack of interest to enter midwifery and poor working conditions and was expressed through what I observed as lack of urgency and lack of individual care for the labouring women.

Not a choice to enter midwifery

To increase the number of midwives in Ethiopia the Ministry of Education is assigning students to midwifery. When applying for higher education, the students apply for nursing, pharmacy, midwifery and engineer at the same university. The students with the lowest qualifications are not able to choose what they want and many students therefore start in midwifery without having any interest in it.

“It is the national education system. I completed class 12 and entered the university.. in health science college.. just by chance I was placed in midwifery department. It is like that... I started just by chance... I was not interested.. it was boring, much stress.. If I get the chance to do something else, I will” (Biniam, male, age 29)

He described starting on an education he initially did not want, the disappointment not to get the possibility to study what he wanted, which was engineering. He told about going through an education without passion and interest in a profession with many unknown and unfamiliar topics. Many midwives in the health centres were young men who not voluntarily had become midwives. Many of them said they preferred to study pharmacy, nursing or become an engineer but ended up in midwifery without interest or desire. Mistrust, suspicion and prejudice from women and the society are challenges that require additional motivation for males both to enter and to thrive in the midwifery profession. In health centre A six out of eight midwives were men.

Poor working conditions

The midwives had a tough working schedule in addition to a low salary and little professional input and little career possibilities. They did their job loyally but were also complaining of poor working conditions. On average they had two, three night shifts per week. Although the midwives had the opportunity to lie down on a bed and sleep at night when it was quiet in the ward, it was often enough to do with both admissions and women in labour. Due to the dense night shifts and little spare time they missed the time with friends and social activities. The midwives often seemed unmotivated and tired. Some of them took a nap during the day.

The midwives were complaining about their poor wages. Many of them were working in private clinics and hospitals to increase their salary. Most of them were organized in The Ethiopian Midwives' Association. However, the midwives told me that the organisation was working mostly with professional topics and had little influence on the midwives' working conditions or salaries.

Biniam was working in a private clinic up to ten days per month. He told me that midwives need to have both experience and a letter of recommendation to get a job in a

private clinic, they need to show initiative and desire to work there and they put a lot of efforts into this job. He explained that this “is stressful” and that working so much made him tired and sometimes unmotivated for the job in the health centre.

There were little possibilities for professional development for the midwives such as courses or seminars. All the midwives appreciated the BEmONC- course that was organized as part of the intervention study, both for its content but also for the professional community, discussions and exchange of experience. If possible they all wanted to repeat it and argued that it should be mandatory for all midwives. However none of them wanted to use the simulation training they were provided with. All the health centres have their own MamaNatalie and NeoNatalie- simulators, but they were usually locked in a storage room. Except from the written course material from the BEmONC-course there were no computers, textbooks or scientific literature available in the delivery ward.

The midwives got little encouragement and appreciation for their work, and felt rarely seen as employees, as described in this example:

One pregnant midwife stayed at home one day because she was ill. She called the health centre in the morning and got a harsh comment that she had to be present the next day. She told me she felt both hurt and offended by this comment and called for a more friendly tone towards the employees, and that she dreaded to call to say she was sick. The next day she felt fine and was at work as usual. No one was asking about her wellbeing.

Lack of individual care

Most of the midwives were not very committed and interested despite their relatively short experience in the profession, and this was also to some extent reflected in the way they were working. It was not common for the midwives to give encouragement and care when the labour pain was on its most intense. The labouring women were mostly alone through long

periods of labour. The midwives rarely sat at the bedside helping and comforting the woman through the contractions more than a few minutes. There was little initiative to e.g. try to increase the progress of labour with such as encourage the woman to empty the bladder, be up, eat and drink and little encouragement other than “*aisusch.*”

Women who were admitted in labour were treated in the same manner, regardless of whether they were primi or multipara. After being admitted, most of them were outside in the courtyard with their family until it was time for the next examination. The midwives did not seem to be trained to individual assessment of the labouring woman, but rather seemed to trust the standards they had been taught in the pre-service training, and there was little tradition for individually judgement of the women:

A para 4 woman was admitted with 6 cm. The membranes ruptured just when she arrived. The midwife admitted her, put her to bed and she herself played music on her cell phone. I passed by and heard that the woman was pushing. Suddenly she delivered.

The midwife was very surprised when the baby’s head suddenly was born, got upset and confused as she was not prepared, nor had prepared the equipment at the delivery.

Their knowledge to prioritize according to the progress of labour and individual situation was inadequate, and the combination of lack of individual judgement and fear of contagion was descriptive for many situations in the ward, as described in these two examples:

A woman was admitted with painful contractions and was groaning in pain. “She is just three cm open so it is not painful”, the midwives told me.

A woman who also delivered very fast got a baby who was unexpectedly weak. I grabbed the baby by instinct and started to stimulate and dry it. “Gloves!” they

shouted. I explained that I tried to save life, that I prioritized the baby and that I could wash my hands afterwards.

I met several women who had given birth to a stillborn. After delivery they were followed to the postnatal room together with women who had delivered a live baby. There was no particular follow-up of these women. Nor in these situations were the women cared for and assessed individually.

Lack of urgency

When facing a problem the midwives usually knew what to do and when to refer the woman to hospital. However there was little alertness or urgency in emergency situations. Lack of urgency was also apparent in the hospital. The midwife in the health centre did not call the hospital in advance when referring a woman and on arrival the hospital staff seemed unprepared for an emergency situation. Despite most women who were admitted in hospital were emergency cases, the midwives there did not act rapidly. Twice the ambulance driver at the health centre had gone for tea and we had to wait up to half an hour for the transport. A woman with a spontaneous abortion and pain had to wait outside for two hours before she was taken care of.

A para 1 was presenting in the health centre with twin pregnancy in week 29. The membranes were ruptured and she was in active labour. The cervix was 4 cm and she had painful contractions. “What do you plan to do?” I asked. “Oh, we can conduct the delivery here”, one of the most experienced midwives answered. We discussed: Para 1, good contractions, two premature babies in week 29. There was no incubator in the health centre, no paediatrician. I suggested referring her immediately, which they agreed to.

The midwives were not preparing for a possible delivery or for the urgent situation. The ambu-bag for ventilation of the neonate was dirty and dismantled and lying to disinfecting in a bucket. The woman seemed frightened. While waiting for the transport the woman was left alone in a room, the midwife occasionally looked after her. They managed to get the woman to hospital before she delivered. It was challenging for the midwives to get a complete picture of a complex clinical situation, and their lack of sufficient clinical experience aggravated their ability to cope with demanding situations. The midwives rarely asked the woman about previous deliveries their progress outcomes and complications, nor about her expectations about the current one. When experiencing an emergency situation the midwives tried to solve it without calling for help from more experienced midwives.

A primi gravida HIV positive woman had been admitted the night before, due to long distance from her home. At noon she was fully dilated. She cried out in pain. The midwives were sitting around doing little for her. After 20 minutes they reported foetal distress and they decided to apply vacuum extraction. The less experienced midwife in the ward was doing this. I asked about the status of the foetal heartbeats. They were looking around for the foetoscope. They worked slowly and apparently with no structure. The foetal heartbeats were checked just a few times. Everybody were shouting and speaking all at once. Four midwives were present and everyone was doing everything. They tried vacuum extraction five times without success. After almost 3 hours the most experienced midwife was called for to give a fundal pressure to try to deliver the baby. He came walking down the corridor with the cell phone in his hand, said he had to answer a text message first. The baby was born - without vital signs. They tried to resuscitate with stimulation and ventilation without result.

Although frustration with the poor working conditions and the lack of compassion for midwifery was strongly expressed in action and in interviews, some of the midwives stated that they gradually came to like their profession:

“It was not voluntary at all. It was not my interest.. It was midwifery for me.. I had no idea..(about midwifery), it was confusing. But now I am so glad being a midwife!”

(Adam, male, age 29)

Feeling insecure at work

A case: An uncomplicated childbirth

A woman was admitted in a health centre with regular contractions early in the morning. The midwife assessed her and examined the pregnant tummy. The pregnancy had been normal and the foetus was in cephalic position. The foetal heart rate was normal. The midwife measured the blood pressure and performed a vaginal examination; the foetus' head was engaged in the pelvis and the cervix was 4 cm open. All the findings were recorded on the partogram. The woman was in active labour.

At 09 a.m. the cervix was 7 cm, and the woman had good contractions. Her husband and mother were sitting outside in the courtyard, waiting. The labouring woman was alone in the labour room, the midwives were sitting outside in the corridor. They went in and out of the room, checking the foetal heart rate and saying *“Aisusch!”* (Be strong!). The woman was very afraid, stretched out her hands and cried; *“I am dying, I am dying...!”*

At 11 a.m. all the midwives went for a meeting- and were absent from the ward for more than an hour. My research assistant and I were asked to look after the woman meanwhile.

After about an hour the woman felt for pushing and she was in severe pain. She screamed. The research assistant called for help and a recently graduated midwife came. Together we helped the woman from the bed into the delivery room, and up on the delivery bed. As the midwife prepared herself for the delivery she occasionally said *“Aisusch!”* to the woman. She dressed in an apron, boots and gloves. She prepared the necessary equipment, unpacked the delivery set with the instruments, put on an extra pair of gloves and cleaned the woman's vulva with a disinfectant solution. Some of the foetus' head was now visible in the vulva. I asked about the status of the foetus. She looked around for the foetoscope, said she heard a low foetal heart rate

and wanted to perform an episiotomy. She was a little hesitant in how to do this and also how to put the local anesthesia. “I don’t know how to do it”, she whispered. She looked around for help and advice, and I guided her.

The baby was born very quickly, was about to drop on the floor and was weak; it did not scream immediately and there was little tonus and reaction. The cord was cut. Together we dried and stimulated the baby and it responded gradually, and was then put on the mother’s chest. The baby was given 8/9 in Apgar score. The woman got an injection with oxytocine, to prevent bleeding.

The placenta was delivered by uterine massage and gentle cord traction. The bleeding was normal. The midwife took a brief look at the placenta and said it was complete.

At this point some of the other midwives had returned and three came right into the delivery room. One took the baby from the mother, weighed and measured it, gave the routine vitamin K and applied ointments to the baby’s eyes. The baby was wrapped in blankets brought by the woman and put in a cot.

The midwife sutured the episiotomy. She did not give the woman local anesthesia before she performed the episiotomy and now she injected 5 ml. The woman was groaning in pain. “It’s mental pain”, the midwife explained. She repeated “*aisusch!*” several times while she was suturing. After she finished, the woman was cleaned with some gauzes.

She then walked to the postnatal room in the other end of the corridor where she went to bed together with the baby to rest, and was helped to initiate breastfeeding. After a couple of hours the relatives brought her food. Her family took her home in the evening, approximately six hours after delivery. She came back six days post partum for postnatal care.

This story is descriptive for many of the childbirths I attended the health centers and raises some important points that I want to highlight and discuss further.

During the interviews *fear* was spontaneously and repeatedly expressed, and a prominent and recurrent theme among the midwives. There are many aspects of fear and

which they expressed such as *fearing for complications*, to lose a mother or a child and not to manage labour and childbirth properly, *fear of consequences* for their professional work such as accountability measures and reputation in the society, and also *fear of contagion*.

Some few midwives said they were never afraid and that they could manage all situations.

Fear of complications in labour and childbirth

Most of all the midwives feared complications in labour and childbirth such as maternal death and post partum haemorrhage (PPH), and many of them had tough professional experiences despite their brief careers as midwives. Some burst into tears when telling their stories. They feared not to manage labour and childbirth properly, particularly emergency situations such as PPH or an asphyxiated neonate. Many of the midwives had experienced PPH with different outcomes and they all expressed an extensive fear for PPH and not to manage it properly, both due to limited competence and skills but also due to limited resources in the health centre.

Even though there are many emergency situations in obstetrics, PPH is one of the most common and perhaps the most dramatic and the situation can quickly get out of control.

Despite knowledge about PPH and having participated in the BEmONC-training, which focused on PPH, one midwife said about the fear of PPH as a constant threat:

“Just what I am fearing for is PPH. You know that if a mother bleeds, she will develop anaemia and after that complication she will die.. [...] We have to think about that, how to manage, and you have to be ready – always, all the time.. so.. if there is PPH I am fearing for the death of the mother” (Biniam, male, age 29)

One midwife told a story about a woman who died of PPH. It had been a normal delivery, the placenta and membranes were complete and she had no risk factors. The midwife had gone

for lunch, leaving the woman alone in the postnatal room. Coming back from lunch the midwife found the whole ward in chaos, everybody trying to get control of the situation:

“In this health centre .. unfortunately, the delivery was conducted and managed by me, and I had already finished everything; summery, placenta, everything, the placenta.. was delivered by controlled cord traction. After that, at lunchtime, she was taken over by other midwife, and we (two other midwives and himself; authors comment) were outside from the health centre. After coming back this area is just frustrated, and the mother is bleeding, just bleeding, bleeding... And they are trying; fluid, and...the uterus is well contracted, just she is bleeding.. and I remember she was pregnant.. (the midwife who took over; authors comment) and she tried to manage this PPH. With fluids.. and with Pitocin.., with Ergometrine.. but, we can't! After that we did bimanual, but she had no progress, she was still bleeding, and she was gone, just gone! After that we were.. so frustrated” (Adam, male, age 29)

Despite being admitted in a BEmONC unit in a big city with several people present and following the guidelines for treatment of PPH, the woman died. The midwives' awareness that if this woman had delivered in a hospital she *might* have survived, made him feel despair and powerlessness.

Another midwife told a story from a remote rural clinic on the border to Somalia. This clinic was run by an international NGO and there was a doctor on call, sleeping at home. The midwife was alone on duty during the night when an HIV positive mother who initially was going to be delivered by Caesarean section went into labour. After consulting the doctor by phone she delivered the woman by vacuum extraction. The baby was fine. Then:

“After that.. after that.. she starts bleeding. (pause) A lot of bleeding. The placenta is not removed. This is an adherent placenta, not retained placenta. And also.. again, I called for the gynaecologist. He said... “you can try bimanual removal of the placenta”.. (whispering) .. he said like that. So... I tried to remove that placenta.. with.. bimanual remove.. but.. some conceptual tissue (parts of the placenta; authors comment) was retained. She bled, already. Previously, as you know- she is anaemic! (raises her voice) Then I shout for help. There was a GP, general practitioner, in

that...clinic. He was sleeping. [...] For two hours she bled, already.. I was trying to save that mother, by mouth (per os) and also intravenous. With intravenous- in two ends! By mouth with Mirinda! (soft drink), with intravenous, normal saline. [...] She said some.. like... “ please.. help..”, she said like that. After that, that general practitioner came.. he did postnatal curettage and removed that conceptual tissue... [...] Then we prepared blood for the mother.. Then the bleeding already had stopped. After she got that blood transfusion, she’s nice! After finishing, the gynaecologist came. “Why do you come?” I said. I was so sorry, I cried by that time. She (the woman) was.. nice.. We saved that mothers life.” (Ihite, female, age 28)

Ihite was describing a situation where she was alone, insecure of what to do and how and what to prioritize and lack of supervision. She knew she had the woman’s life in her hands and that she would die if she did not do the right things. She was torn between the woman’s needs; her fear and cries for help and the practical things that she had to do, which saved the woman’s life. She knew she had to stay calm and prioritize correctly. *Ihite* perceived this as an extremely dramatic situation trying to save the woman’s life with little help and resources. She was in despair and anger since no one came to help her when she cried for help. Even though the clinic was supposed to offer BEmONC, she was alone on duty, it was far away from the nearest CEmONC unit and referral was out of the question.

During night duty the midwives at the health centres in Addis Ababa are no less alone than *Ihite* in the rural clinic above and are by and large left to their own judgement and skills. There is no doctor on call and no one to contact in emergency situations.

Despite working in a health centre that is offering BEmONC many of the midwives expressed their fear for a life-threatening situation to occur. They feared to not knowing what to do and not having the right skills and confidence in the situation. One said:

“I am afraid of.. just like, the mothers are trusting me, and she is just sick-looking and she is lethargic, (low voice) and I am afraid of what I am doing.. just to save the mother and to manage that PPH, to save her life. Just DOING, just DOING, and..

simultaneously I am fearing and I am afraid.. [...] Just properly see and properly monitoring the mother's condition and the situation that is happening in our ward. I am afraid, actually!" (cries out loudly) (Adam, male, age 29)

Adam described what many of them expressed, a constant fear for complications and death. While he was telling me this he hesitated, talked back and forth before he exclaimed: "I am afraid, actually!" I perceived that this feeling was difficult for him to admit. The general feeling of not being in control was expressed by several of the midwives who said that they would think: What can happen today? Will I be lucky and manage? Many of the midwives described lack of control and felt lucky if they avoided an emergency situation. If there had been a delivery just before I arrived in the health centre, I often asked the midwife "did it go well?" "Yes, it was fine", they most often replied. "It was a spontaneous delivery. The mother and child are OK. I was lucky. Thanks to God."

The individual midwife's experience of suffering and death during childbirth and the uncertainty of the outcome of the delivery are powerfully expressed in the frequent concern of midwifery as 'saving the life of the mother'. I perceived that some of them felt relieved to tell me about their experiences.

Sticking to guidelines

The midwives immediately adopted new guidelines. The step-by-step procedure for Prelabour Rupture Of Membranes (PROM) was put on the wall and followed without discussions. They expressed that they liked this kind of "rules", whether they were related to ruptured membranes or PPH, and that rules should be strictly followed. The use of the partogram including the alert- and action line to diagnose prolonged labour was common, but I experienced that not all the midwives were familiar with it and particularly how to interpret it. Another guideline was to examine a woman vaginally only every four hours.

A primigravida was admitted at 4 a.m. with contractions and cervix 8 cm open. At 8 a.m. she was still 8 cm, the tummy was very big and the head was high in the pelvic inlet. We discussed what to do. The midwife suggested to examining her again in four hours - at noon. "But, I said, then you are creating a prolonged labour? A woman in labour with 8 cm is expected to deliver within four hours?" "But it is in the protocol to assess only every four hours", he answered. We discussed and he agreed to assess again after 1,5 hours. Then there was no progress of labour and she was referred to hospital.

Even though all labours are distinct there are some expectations in all. In the last part of the first stage of labour progress is usually expected within a couple of hours, even in a primi para. Lack of progress in more than four hours should make the midwife alert and initiate action. This example demonstrates the midwives' loyalty towards guidelines as a measure of being in control, and it was difficult to get them to look differently at a situation. The answer was often "it's in the protocol".

Another example was the rule of examining the woman vaginally only every four hours. The midwives explained that this was to avoid infections transmitted to the foetus, but why did they never wash their hands as a precaution to avoid contamination? This finding corresponds with another study from Ethiopian hospitals: hand washing was rarely performed by the health workers (37). Another example is diagnosis and treatment of PROM, rupture of membranes before the onset of contractions. If a woman said the water was broken, they trusted her without doubt and started the treatment according to the protocol. It can be difficult to be sure of if the water has broken, since discharge in late pregnancy is common and examination of pads and/or trousers is necessary to confirm the diagnosis (53). I never saw anyone examining a woman to confirm whether the membranes *really* were broken.

Fear of consequences

The midwives feared for consequences for their role as midwives if the work was not properly performed, such as accountability measures and sanctions from the management. In addition they feared for their reputation as midwives in the population.

The midwives expressed a deep sense of responsibility towards “serving their country” and towards God, but they feared being held responsible for a poor outcome of labour. They feared for sanctions from the management of the health centre and of losing respect and confidence among the labouring women if they did not manage a problem. Some expressed their thoughts about the consequences of maternal deaths for their role as midwives:

“If the mother dies, just there will come some after.. If I do a mistake I will be asked for that mother. I fear.”

(Biniam, male age 29)

Another said:

“Every pregnancy is at risk. If a mother dies, sometimes.. there is a mistake from the health professional, just I am thinking of that [..] Nowadays there are legal issues, you may have to pay..”

(Christos, male age 24)

This fear is an extra burden for the midwives, knowing that they could lose their job if they did not manage it properly. Doing a good job was seen as a duty and they all had great respect for their employer. Even though legal liability is not widespread in Ethiopia it is more common now and a consequence the midwives feared. Being held responsible for a bad management in labour and delivery and in addition have to pay could be an economically and professionally disaster for the individual midwife.

One midwife expressed the consequences for their role in the society:

“Because it can affect our effort in the society.. if a complication happens, if such a thing happens, the society does not trust us, and they (the women) will not come”

(Biniam, male, age 29)

The midwives were dependent on the confidence of women. Bad management or treatment could give the health centre a bad reputation and women may choose to deliver in other places or at home. Distrust from and absence of the users could reflect that the health centre- including the skilled midwives- was not a skilled environment as intended - including the skilled midwives- where women naturally would seek help. If the number of deliveries in the health centres was decreased it could in addition have an impact on the midwives' position and work as midwives as well as hurt their pride.

Fear of contagion

In every delivery there will be blood, stool and other body fluids and I experienced an extensive fear of contagion among the midwives. Every labouring woman was seen as a potential source of contagion and the midwives were concerned about protecting themselves. The use of gloves was widespread and no woman or baby was touched without protection, not even a pat on the cheek. If a woman had used a bedpan, the midwives did not touch it, even with gloves.

One of the midwives I interviewed reflected upon the issue of contagion. While talking about the equipment in the ward, he said:

“Water is lacking. Even though we are teaching about the hygiene process, and as you know 85% of diseases in Ethiopia is communicable diseases. [...] Mostly we are suffering due to communicable diseases, why? Due to hygiene process. And we are teaching about hygiene, but we have no water.. even not to wash our hands! [...] Even though there are communicable diseases like hepatitis, and other transmitted (diseases).. that are really infected... Jesus.. I have told for the medical director so many times.. but... it has not changed. It is not changed.. And most of the clients they complain.. they complain that we are not knowing anything..[...] Like that.”

(Hagos, male, age 25)

Despite the general fear of contagion *Hagos* knew how contagion is transmitted and the most important measures to avoid it; washing hands. At the same time he described what many of the midwives stated; complaining about the situation regarding e.g. water supply in the health centre did not make any change. He said this made him frustrated and that it was demoralizing for his work. Despite hand washing was not common the midwives were dependent of water in the delivery process and for cleaning of equipment and rooms. If water was lacking over time labouring women were sent to another health centre.

Many of the labouring women had infectious, pandemic diseases such as Hepatitis B and HIV, transmitted by sexual or blood contact, and mostly importantly in this setting; by perinatal transmission during pregnancy and childbirth. The women were routinely screened for HIV but not for Hepatitis. Since Hepatitis B is much more widespread and infectious than HIV the midwives feared transmission of contagion from every women in general and body fluids in particular. In the discussion about the BEmONC-training *Hagos* added:

“There is one package (in the BEmONC-training)... which is not recommended. Besides.. except HIV infection, they say we can rupture (the membranes; authors comment). What about hepatitis B? It is 100 times more transmitted.. rather than HIV. So? I am not interested to make a rupture.. of membranes. Not only for HIV, for all women it has to be kept.. intact. Because those trainers say that you can make a rupture of membranes, except HIV. What about other transmission? Like hepatitis? I said. That’s my suggestion.” (Hagos, male, age 25)

He raised an important issue of rupturing membranes in a woman with unknown hepatitis status. However there was a discrepancy between the midwives fear of contagion and their lack of hygiene, particularly hand washing. During my stay in health centre A I just met one midwife who routinely washed her hands. “It is not necessary to wash hands before delivery”, one midwife told me. He explained that it was necessary to wash his hands *after* the delivery, when he had been in contact with the woman. Nobody washed their hands

before conducting a delivery or between examining different women and neonates. However they were rinsing their right hand before they ate. In health centre C, however, there were bottles with disinfectant that they used quite often.

8. Discussion of findings

Summary of main findings

The aim of this study was to get an increased understanding of midwives' challenges in providing quality maternal and neonatal care in health centres in Addis Ababa. What were the biggest challenges working as midwives and what prevented them from providing quality care?

My main findings were poor working conditions, the midwives' feeling of insecurity and frustration at work. Many of the midwives started in midwifery without interest or passion. I experienced a general fear and frustration at work with tough schedules and low salaries. The midwives showed little alertness and urgency in emergency situations. Many of them seemed and expressed that they were tired and unmotivated and they worked routinely. When deciding to do something, they did not rush to do so. The extensive use of cell phones interrupted in the interaction between the midwife and the woman. If a phone rang during a consultation or examination, they always answered it. Some were playing music or games on the phone in the delivery room while a woman was giving birth.

They expressed fear of complications and of consequences if they did not manage a complicated labour or delivery. In case of foetal distress there was no alertness or urgency in trying to solve the problem and it seemed difficult for many of them to organize their work.

Few of the midwives had experienced PPH or resuscitation of the neonate after the BEmONC-training. However they expressed that they felt more confident managing this

after the BEmONC-training. I experienced good judgement and excellent management in a situation with PPH in health centre A.

I experienced an extensive fear of contagion among the midwives. The hygiene during delivery was irreproachable. However, women in advanced labour were left in their beds soiled with amnion fluid and stool without anyone trying to clean them or make them more comfortable. No one was washing their hands neither before assessing a woman, before delivery nor when handling women prenatally or mothers and neonates in the postnatal consultations. Women were just occasionally encouraged and offered to freshen up after birth, even when water was available. Privacy, dignity and emotional care were not sufficiently emphasized in the meeting between the midwife and the labouring women, and they received little care in sense of physical contact, encouragement or assurance that things went well.

The women were welcomed and the midwives were courteous. They followed the woman with assessments and supervision of the foetus, filling in the partogram and followed strictly the local routines for treatment, referrals and prevention and treatment of complications. However, a little deviation even in a normal labour made some of them insecure and in doubt about what to do. They did not they seek learning situations with such as MamaNatalie when they had time for it. This was surprising considering their challenges and narratives.

I will discuss my findings in relation to the concept of evidence- and experience-based practice, the workplace as an arena to develop knowledge and experience and the basic education of midwives in Ethiopia.

Knowledge, practice and role models

Experience-based practice is the cornerstone in health care, where the health professionals' knowledge is developed through practice and experience from clinical situations (52). From this experience tacit knowledge will develop little by little (56, 57). However, development of clinical experience requires experience of a certain length/quantity, and focuses on the individual's ability to acquire knowledge and experience (57).

The fear that the midwives described was reflected in their work. It usually takes many years to be confident in midwifery and a certain number of challenging cases are crucial to develop experience and hopefully; confidence. Observing one another is instructive but cannot replace "hands on" oneself. Experience will make it easier to distinguish one situation from another (55, 56).

It is easy to perceive the midwives' fear for a complicated situation and the possibility of coping. This fear could paralyze their ability to act properly according to the protocol in a situation perceived as challenging (67). Since there was no supervision and no one to consult the management could be a kind of "trial and error". Much of the fear they expressed was because of lack of knowledge and skills and lack of a skilled environment where it was possible both to seek knowledge, advice and help. The midwives in the health centre did not have any backup or someone to call if they need more help and in a difficult situation it was safe to stick to the local rules and guidelines. The guidelines represented a safe policy, they tell the midwife exactly what to do and she/he usually sees the effect immediately. Guidelines were transformed into protocols and could serve as a protection if something went wrong. By not following the guidelines the midwife got a feeling of uncertainty, of not knowing the consequences, neither medically nor in terms of accountability.

By using the guidelines several times the midwife felt confident and knew what to do in the particular situation and this became their source of knowledge. However there was little individual clinical judgement related to the progress of labour. Even though it is common to define active labour when the cervix is more than four cm, pain in labour and childbirth is experienced and expressed

individually and factors such as fear, anxiety and uncertainty increases the woman's experience of pain.

A systematic knowledge-based practice has to be implemented during education and maintained in the clinical setting. However, in a context such as in the health centres I visited, with barriers such as lack of experience and sources of evidence, this is difficult. At the same time there are several known obstacles for implementation of new knowledge and science in practice. These are characteristics of the research itself, the health professional, the environment and the profession (52). For the individual health professional- the midwife- there are obstacles such as lack of knowledge about how to find and read new science, poor English language skills and lack of desire to change practice. It could be lack of culture for changes and development and to implement new science into practice, as well as little support from colleagues and the management. In addition implementation of new science and practice are characterized by the health professionals' lack of role models and cooperation with researchers (52). The midwives were calling for new knowledge and research. However, lack of sources of knowledge such as possibilities for professional development through courses and seminars and limited access to the Internet were constraining for their theoretical development. The BEmONC-course was therefore highly welcomed, particularly the practical skills training.

Good role models are extremely important for development of both practical and tacit knowledge, as described by Sandvik (56). It is through the personal contact between the more experienced and the younger that knowledge and tradition are transformed (56). I experienced that midwives mostly were working alone and had few experienced role models to counsel and this was reflected in the way they were working. However, in health centre C the head of the midwives was an example of a good role model, participating in assessment of the women and counselling the younger midwives. She was highly respected due to her age

and long experience, she was present in all senses and she cared for the staff, both as professionals and as individuals. Establishment of senior midwife positions at the health centres could contribute to increased knowledge and skills among the midwives as well as increased confidence and satisfaction.

Many of the midwives I met expressed confidence in both knowledge and skills and thought they had a long and good experience as a midwife, even though their median experience was just five years. This is in contrast to what I observed and experienced as well as the findings from Getachew et al, showing that 60 % of birth attendants perceived they were *lacking* knowledge and skills (37). The study was from hospitals where one would expect a higher number of deliveries and hence more experienced midwives than in the health centres. Nevertheless, many of the midwives I met did not have sufficient experience confidence and skills to assess a woman or a situation individually and to treat accordingly.

Education of midwives

In all the countries that have improved their MDG 4 and 5, education of professional midwives has been an important determinant to achieve the goals. However, the education of midwives is still inconsistent. In many low-income countries the profession lacks recognition and respect, despite the huge responsibility midwives are bearing (68). The education of midwives varies worldwide and in addition many health workers use the term “midwife” even though they do not hold the recognized competencies in maternal and neonatal health care (38).

Ethiopian authorities seem to have prioritized an increase in quantity of student midwives without having improved the quality of the education. Other health workers are in addition practicing as “midwives” in the health centres, such as nurses, health officers and in some occasions also students. In the health centres in Addis Ababa nurses attended deliveries

when it was busy or if they were lacking midwives, without sufficient access to advice and help.

In a practical profession such as midwifery the practical experience is highly essential to develop both tacit and formal knowledge. It is the midwife's theoretical and practical competence that ensures quality care, and lack of such competence as seen in this study worsened the midwives' working conditions and possibility to give quality obstetric services. Attending a BEmONC-course once to improve skills is important and essential. However this can never compensate for quality midwifery education and a continuously good and safe working environment with good role models. An increased recruitment of good teachers, trainers and tutors is urgent. Their competencies need to be maintained upgraded and supervised, and research and academic activities have to be promoted (35).

Recruitment and gender

Historically midwifery is one of few professions that have been dominated by women. From the 18th century labour and childbirth became more and more dominated by the medical profession, and more males were involved in midwifery and obstetrics (35).

In a systematic review about human resources and the quality of emergency obstetric care, Dogba and Fournier (69) concluded that shortage of staff and a certain imbalance of quality such as gender are key components. Most midwives are female and many women prefer female personnel in labour and childbirth (35), especially when it comes to vaginal examinations. In the health centres I studied in Addis Ababa there were no shortage of staff, however the proportion of male midwives were high compared to females. In midwifery schools in Ethiopia 72.5% of the staff were men and in four schools there were no female teachers at all (35).

The proportion of male midwives differs in comparable neighbouring countries. In Tanzania midwifery is following three years of nursing, where the students in the fourth year are required to study midwifery or mental health. Very few males are selecting midwifery (5). In South Sudan 50 % of the midwife students today are men (70). In Uganda more and more males are becoming midwives. However many women express discomfort and humiliation being treated by a male midwife, which has led to a public discussion about male midwives (71, 72). This is also the fact in Zambia where some claims that midwifery is for women only and others says that male midwives apparently work better than the females (73, 74). Chilumba however, looked at the acceptability of male midwives in both a rural and urban area of Zambia, where 60% of the women accepted being cared for by male midwives and 73% stated that the males were more caring and empathic than their female colleagues (75). In my opinion observations done in this study and the study from Zambia confirm that it is the quality of care that matters to women in labour, not the gender of the one giving the services.

Midwife-centred care

Most labouring women were left alone in the labour room and the midwives showed little interest to encourage and help them through the contractions. When quiet in the ward, many of the midwives "escaped" into a world of mobile phones and games during the day, and were thus inaccessible.

Maputle and Hiss (15) did a qualitative study in a hospital in South Africa, looking at midwives' management of women in labour. Their findings were discouraging. Lack of mutual responsibility and participation, decision-making and sharing of information together with limitations were some of the problems. The care is midwife-centred instead of woman-centred; i.e. the midwife tells the woman what to do and how to do it, instead of involving the

woman in the labour process. In a study from Tanzania Mselle et al (76) describe the weakness in the quality of care among nurse-midwives in BEmONC and CEmONC-units. The nurse-midwives expressed lack of motivation, dis-empowerment and lack of supervision and supplies. Similar findings are found in a study from Moyer et al in Ghana (14). This is in line with my own findings in the health centres in Addis Ababa elaborated by the expression; *The woman was groaning in pain. "It's mental pain", the midwife explained*, and that midwives work routinely without seeing the individual woman. This corroborates with the recent call for more woman-centred care (20).

My findings show a high level of neglect of women in pain, neglect of their dignity and privacy, need for care and consideration and for situations with prolonged stages of labour. I have also documented lack of alertness, urgency, tempo and action in emergency situations. Surprisingly the women were not complaining and were overall satisfied with the care they received. At the same time the midwives expressed a strong fear for complications in labour and childbirth and for not managing these properly. There are lessons from normal deliveries that provide the midwife experience to differentiate between what is normal or not, but with lack of power and confidence they might not benefit optimally from these various experiences. This explains the background for the implementation of the new signal functions in the BEmONC and CEmONC-units (29, 30).

The conception of labour and childbirth differs in cultures and contexts. It is an indicator of the birthing system in the country and also often reflects the view of women. In some developing countries having a child is a matter of survival for both the mother and the baby. In others it is a medical procedure such as in the US and in a third a personal achievement, such as in Norway (77). In Ethiopia as in most developing countries many women fear for their lives when realizing they are pregnant. Midwives must be highly aware of this reality and the extra burden of fear and anxiety that these women are carrying. Having

a child is one of the most epoch-making experiences in life, no matter where in the world it happens. Quality care including knowledge-based practice and a woman-centred care including an inclusive and respectful attitude towards the labouring woman is highly essential for the labour process, the outcome and the future health of both the woman and her baby (25).

11. Discussion of methods

There are different ways to judge methods and results in qualitative research. The Qualitative Research Review Guidelines (RATS) are one common tool (78). RATS is an abbreviation for Relevance, Appropriateness, Transparency and Soundness.

Relevance

The relevance of this study has been argued for and discussed in the background and rationale section. The problem of maternal and child health has a general interest, and for politicians, education and public health in particular.

Appropriateness

The appropriateness is described through a description of the study design, why I chose a qualitative approach and which design I used and why. I have described the study design. Through the interviews I tried to understand the midwives' experiences and thoughts and during the 11 interviews I got a variety of meanings and narratives. The participant observation added knowledge about the midwives' knowledge and skills.

Transparency

Regarding transparency of procedures I have described the study sampling and how and why I chose the informants, when I started and for how long I did the data collection.

My role as a midwife and a researcher

With a background as a midwife in delivery wards for 27 years including international work to strengthen midwifery and midwifery organisations, I have a strong identity as a midwife. This background surfaced during my fieldwork and in the data collection. In a qualitative study where the researcher is the main tool of the research, the background and the foreknowledge of the researcher are recognised as important for the way the study is conducted and for the production of results (60). However this posed some challenges.

The daily life in a delivery ward in Ethiopia is different from the one in Norway. Coming with skills and experience from a high-income country to do research in a foreign low-income country was challenging. One challenge was related to establishing rapport. My presence in the ward may have been perceived as threatening both due to the country I come from, my age and long experience. I was aware of myself as an “intruder” in their environment, and believed that acting with respect and openness was necessary to succeed. It was also important to put aside preconceptions and my knowledge gained in a very different context, and to be aware that there are many cultural rules that I did not know and which I was believed to violate. It was important for me to establish a trusting relationship where I was seen as one who was supporting the work in the ward rather than evaluating it. I tried to establish an informal and generous relationship through humour and joking. I participated in the professional work as well as in doing odd jobs such as making gauzes and preparing coffee. By being present every day I got to know all the staff very well, they got to know me and little by little I experienced a mutual friendship and respect for all of them.

I tried to meet the labouring women in a careful manner and remained in the background until the midwife had introduced me and asked if it was ok that I was present. If I felt a situation become inappropriate or difficult for the woman, I withdrew.

I was aware of my double role as a researcher and as a fellow midwife with the urge to help out if lives were at stake. By making these different roles clear to my colleagues, my impression was that they experienced my presence primarily as a researcher but also as a colleague when in need of professional help. This transparency made it possible to combine two different roles.

Soundness

As described in the methods I have used content analysis to analyse my data. It is both descriptive and exploratory. I have presented some deviant cases. I have chose quotes that described the essence of my objectives, to illuminate the variety of different experiences, thoughts and meanings. In addition I have explained my findings in relation to a theoretical framework of evidence- and experience-based knowledge and education of midwives.

Strengths

An important strength in this study is the narratives. These stories really got me “under the skin of “ and made me understand the reality and everyday life and work of the midwives.

Another strength is my long experience as a midwife. Labour and childbirth are universal in many ways and easy for me to recognize even in a foreign context. As a clinical midwife in big hospital I meet several women every day, with different problems as well as background expectations and thoughts. In the health centres I tried to act in an informal manner and included everyone regardless of status. This made my presence relaxed and informal and I experienced that they liked my presence in the ward. My experience also

made it easy to perform the participant observation since I am familiar with what is going on in labour and childbirth.

Limitations

My strong identity as a midwife was perhaps the main limitation for performing this study. Despite the fact that I had no responsibility in the situations of labour and childbiths, it was difficult to stand on the sideline and not participate actively in professional discussions and assessments. I realize that this may have influenced my research.

Another important limitation was the language barrier. I did not know any words in Amharic when I started my fieldwork and after three months in Addis Ababa I could just say some simple phrases and understand fragments of a conversation. Using an interpreter will never give the full translation, such as details of local humour, jargon and internal terminology as well as non- verbal communication and gestures. In that sense three months is a short time for a fieldwork. It was also surprising for me how important a social event such as the coffee ceremony was in their daily routines.

When analysing the interviews I met some challenges. Two respondents insisted to do the interview in English, even though their English was not very good. I realized that not all questions were understood correctly. When transcribing these interviews the text was quite incoherent and I have rewritten the text so it became understandable for the reader. While conducting the interviews I was not enough aware of the shortage of their English. I found it difficult insisting for an interpreter since they were both so eager to do the interview in English.

There were relatively few deliveries in the health centres. The health centres I visited were chosen randomly and I might have experienced different or more diversity by chosen other or several health centres, as well as other informants.

12. Conclusion and recommendations

My aim was to increase the knowledge of the challenges in midwives' daily life in a maternity ward in Addis. During my stay in the health centres I met some dedicated midwives with brilliant skills but also frustrated midwives working in an environment without role models, support and supervision. The quote "*I'm afraid, actually*" describes how dangerous, risky and stressful midwifery is in Ethiopia, in addition to being a profession which has little incitements and no professional development. The care was midwife-centred rather than woman-centred. Quality midwifery care is central and essential to achieve the national priority to ensure health for women and newborns. In the development and work towards the MDGs and a post-2015 agenda, quality education of midwives is necessary and should be prioritized.

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Appendixes

Appendix I: Interview guides

Interview guide during BEmONC- training

- a. How long have you been working as a midwife?
- b. How long have you been working in the current BEmONC-unit?
- c. How do you find working in midwifery?
- d. What is the most difficult part? Examples? (Practical skills? Priorities? Information?)
- e. How do you find the availability of technical tools and equipment, colleagues
- f. How do you experience acute situations in the ward? (Fear? Provocative? Inadequate?)
- g. What are your expectations to the course that you are just starting?

Interview guide in the ward after the intervention

- a. How did you experience the course as a whole? (the practical part, the theory part, the simulation, the supervision)
- b. How is the training relevant for you in your daily work?
- c. How was the teamwork functioning between the different participants?
- d. What was the most instructive/informative part of the intervention course?
- e. What was the most difficult part?
- f. What were the main challenges?
- g. How do you as a midwife experience working in the delivery ward after the training?

- h. How is your confidence in preventing/managing complications such as PPH?
- i. How is your confidence in managing complications such as PPH as a team?
- j. How is the interaction between the midwives after the training?
- k. Do you think there is any change in the referrals from BEmONC to CEmONC units after the training course? Why/why not?
- l. How is your confidence in preventing/managing complications such as resuscitation of the neonate?
- m. Have you ever come across a situation where the woman's or the baby's life is at risk? Thinking back, how did you experience that situation? What did you do? Did you feel that you had the confidence and skills and the equipment that was necessary?
- n. Imagine that a woman is admitted with complicated labour. What do you do? What routines do you have to handle emergency situation? Who is responsible?
- o. How do you reflect on the fact that a woman can die in labour, i.e. from PPH? How do you reflect on the fact that life and death is so close to each other in a delivery ward?
- p. How do you define care in labour?
- q. How do you consider the relevance of the BEmONC guidelines for your work in the health centre?

Appendix II: Observation guide

- a. How is the meeting between the midwife and the labouring woman when she is presenting at the labour ward?
- b. How do they establish contact?
- c. How does the midwife make her feel safe and confident during the labouring process?
- d. To which extent do they discuss with their colleagues about the labouring woman, her medical status and the labour progress? Eventually; with who?
- e. How does the midwife follow the woman through the labouring process?
(Keywords: Being present, monitoring mother and foetus, offering food and drink, care, information, in a referral situation)
- f. How do they act on an abnormal progress of labour? (Keywords: prolonged labour, foetal distress, bleeding, dysfunctional contractions)
- g. What do they do to prevent PPH?
- h. How do they act when a woman is suffering from PPH?
- i. How do they react when a newborn does not breathe properly?
- j. How is the ward organised and what resources are available?

Appendix III: Information letter and consent form

UNIVERSITETET I BERGEN



Addis Ababa, august 2013

Dear colleague,

My name is Trude Thommesen, I am a Norwegian midwife and a Master student at the University of Bergen, Norway. I have followed one of the training and simulation courses arranged by the University of Bergen in collaboration with Addis Ababa Health Bureau here in Addis Ababa, in May 2013. Responsible for the intervention study are postdoc. Alemnesh Mirkuzie and professor Karen Marie Moland from the University of Bergen, and Selamawit Gebremichael Menota from Addis Ababa Health Bureau.

I will now do a study with the aim of exploring how you experienced the course, whether it has improved your skills and confidence concerning your management of labour and childbirth. I would like to participate in your daily work in the delivery ward, observe how work is going on, routines and teamwork. In addition, I will invite you to participate in a personal interview in order to discuss the impact of the training course and your day to day challenges in the ward. I will use a local interpreter, and notes will be taken for my research. If you permit, I will use a tape recorder.

It is voluntarily to participate in this study, and you can withdraw at any time. All notes and data will be anonymized so that you cannot be traced.

I will start my data collection in late August 2013, and continue for about three months. If you have any questions, do not hesitate to contact me.

Cell phone number: _____

Kind regards,

Trude Thommesen (sign)

Karen Marie Moland (sign)

Alemnesh Mirkuzie (sign)

I understand what this study is about, and agree to participate. I know that I can withdraw at any time without any consequences.

Addis Ababa, date: _____

Signature of participant:-- _____

Appendix IV: Ethical approval REK Vest



Region:	Saksbehandler:	Telefon:	Vår dato:	Vår referanse:
REK vest	Arne Salbu	55975496	04.08.2013	2013/1304/REK vest
			Dens dato:	Dens referanse:
			25.06.2013	
				Vår referanse må oppgi ved alle henvendelser

Karen Marie Moland
Senter for internasjonal helse
Universitetet i Bergen

2013/1304 Håndtering av fødsel etter akutt opplæring: En kvalitativ studie blant jordmødre i Addis Ababa, Etiopia

Forskningsansvarlig: Universitetet i Bergen
Prosjektleder: Karen Marie Moland

Vi viser til søknad om forhåndsgodkjenning av ovennevnte forskningsprosjekt. Søknaden ble behandlet av Regional komité for medisinsk og helsefaglig forskningsetikk (REK vest) i møtet 15.08.2013. Vurderingen er gjort med hjemmel i helseforskningsloven (hfl.) § 10, jf. forskningsetikklovens § 4.

Prosjektomtale

Studien opplyses å være en del av en intervensjonsstudie med målsetting å øke jordmødres kunnskaper og ferdigheter om fødselshjelp på helsesenternivå i Addis Ababa gjennom et opplæringsprogram med simuleringsteknikk. Studien omfatter 10 helsesentre og skal måle fødselens utfall for mor og barn, bruk av utstyr, retningslinjer og henvisningsrutiner. I tillegg til REK er hovedstudien godkjent av Addis Ababa Health Bureau. Dette delprosjektet inngår som en prosessevaluering og skal utforske praksis og rutiner for fødselshjelp, erfaringer knyttet til opplæringsprogrammet, forståelse av retningslinjer og akutsituasjoner og utfordringer i normale og kompliserte fødsler. En vil benytte en kvalitativ tilnærming. Viktige datainnsamlingsmetoder vil være deltagende observasjon og intervju under kurset og i fødeavdelingen etter kurset. 20 deltagere vil rekrutteres fra de 10 helsesentrene som er med i intervensjonsstudien. Forskeren som selv er jordmor vil gjøre deltagende observasjon på hvert av helsesentrene.

Vurdering

Søknad/protokoll

Prosjektet har en relevant problemstilling og er egnet til å besvare forskningsspørsmålene. REK vest har ingen innvendinger.

Informasjon/samtykke

Det skal hentes inn skriftlig samtykke fra alle jordmødre. Imidlertid vil fødende kvinner også bli observert i forbindelse med at man følger jordmorpraksis. Her skriver søker at skriftlig samtykke ikke er passende eller påkrevd og at "Muntlig samtykke...vil innhentes når dette er mulig og passende". REK Vest kan ikke se noen grunn til at situasjonen skal være bestemmende for om man skal hente inn samtykke og forutsetter at det hentes inn aktivt samtykke på forhånd hos alle kvianese som skal observeres.

Annex

Studien skal gjennomføres i Etiopia. Vi forutsetter at studien også godkjennes av relevant etiopisk myndighet.

Rekontor:
Haukeland
Universitetssykehus,
Sentraltokken, 2. etg, Rom
4017

Telefon: 55075000
E-post: rek-vest@iuh.no
www: <http://etiskforning.rek.no/>

All post og e-post som inngår i
saksbehandling, besvares av REK
vest og ikke av enkelte personer

Kindly address all mail and e-mails to
the Regional Ethics Committee, REK
vest, not to individual staff

Vilkår

- Det skal hentes inn aktivt samtykke fra alle kvinnene som observeres.
- Studien må også være godkjent av relevant etiopisk myndighet.

Vedtak

REK Vest godkjenner studien på betingelse av at ovennevnte vilkår tas til følge.

Sluttmelding og søknad om prosjektendring

Prosjektleder skal sende sluttmelding til REK vest på eget skjema senest 31.05.2014, jf. hfl.

12. Prosjektleder skal sende søknad om prosjektendring til REK vest dersom det skal gjøres vesentlige endringer i forhold til de opplysninger som er gitt i søknaden, jf. hfl. § 11.

Klageadgang

Du kan klage på komiteens vedtak, jf. forvaltningslovens § 28 flg. Klagen sendes til REK vest. Klagefristen er tre uker fra du mottar dette brevet. Dersom vedtaket opprettholdes av REK vest, sendes klagen videre til Den nasjonale forskningsetiske komité for medisin og helsefag for endelig vurdering.

Med vennlig hilsen

Ansgar Berg
dr.med
komiteleder

Arne Salbu
rådgiver

Kopi til: postmottak@uib.no

