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Active Management of the Third Stage of Labor by Skilled Birth Attendants In a Rural Regional Hospital In Southern Ethiopia: A Qualitative Case Study

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ACTIVE MANAGEMENT OF THE THIRD STAGE OF LABOR BY SKILLED BIRTH ATTENDANTS IN A RURAL REGIONAL HOSPITAL IN SOUTHERN ETHIOPIA: A QUALITATIVE CASE STUDY

by

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ABSTRACT

In Ethiopia, as in many developing countries, postpartum hemorrhage (PPH) is the leading cause of maternal mortality. PPH can be prevented through a three-step practice called active management of the third stage of labor (AMTSL), which can be learned by a skilled birth attendant (SBA). However, most SBAs have not adopted AMTSL into practice. The purpose of this case study was to investigate the use of AMTSL among SBAs in a rural regional hospital in southern Ethiopia. Six theoretical propositions and a conceptual framework were designed to guide the research and analysis. In-depth interviews were conducted with SBAs who worked at the regional hospital in the labor and delivery ward. Internal and external factors of influence on the decision-making process during the management of the third stage of labor by the SBAs were identified and discussed. The participants believe they practice AMSTL despite not meeting criteria. The findings by individual components of AMSTL revealed the use of a uterotonic now considered the most important component in the prevention of PPH. Oxytocin, the uterotonic of choice, was given within the relaxed time frame. Findings of concern suggest a lack of understanding that all women are at risk for PPH and that every woman giving birth should receive AMTSL. An area of even greater concern was the lack of follow-up uterine palpation, which may indicate a lack of patient surveillance during the time of greatest risk. The recommendations for practice show a significant responsibility to improve quality of pre-service and in-service education and training to ensure AMTSL is practiced by every SBA at every birth.

DEDICATION

In honor of

Mabrat Gebreezi Ekubetensae

October 10, 1972 - July 30, 1998

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Chapter 1

Introduction

At 8:00 am, it was already hot and humid in the Republic of Djibouti, a small country on the East coast of Africa. Three camels blocked the road as I drove to the maternity hospital where I worked as a nurse midwife. When I arrived, the guards opened the gate and I was cleared to enter. As usual, the postpartum unit was overflowing with newly delivered mothers, two to a bed or lying on cardboard on the floor. They greeted me as they sipped spiced tea and breastfed their newborns. Women in labor lined the hallways as I made my way to the delivery room. The nurses and midwives were busy delivering several women when I entered. Amidst the commotion, I noticed a woman lying on a stretcher on the floor and walked over to assist her. I knelt down and gently lifted the scarf that covered her face. I stopped short of greeting her when I realized she was dead.

It took about an hour to get the full story of what happened to this patient. According to the midwives, she had given birth to her fourth child the night before around 10 PM. She had some heavy bleeding at first but then subsided; otherwise there were no complications. In the morning the staff found her in severe shock and she was unable to be resuscitated. Her name was Khadija, and she was 24 years old. She died of postpartum hemorrhage.

When Khadija's family came later that morning with a vehicle to transport her body to the cemetery for burial, I assisted with lifting the stretcher. I became mindful of how the weight of a lifeless body feels physically heavier than when lifting a living person. This woman's death left me with a profound emotional and spiritual heaviness.

However, although shocking, Khadija's death was not the first time I had experienced a maternal morality.

While working in southern Somalia from 1986-89, my national midwifery counterpart, Faduma, and I were the only providers for obstetrical problems for a large rural district. Women were brought to us in donkey carts, wooden wheelbarrows, or on makeshift stretchers. Many were brought to us after days of obstructed labor or because of seizures, heavy bleeding, or infection. For some of these women, we were able to provide the care they needed and they survived; others came too late and died, despite our best efforts. These deaths were absolutely appalling, but not surprising, given the primitive rural setting and that we had little or no resources. Faduma and I were just two struggling midwives, not a tertiary referral hospital where women could receive the appropriate medications, a blood transfusion, or cesarean birth, were available if needed.

Khadija's death in Djibouti was more disturbing to me because it occurred in a hospital with midwives, nurses, and physicians. No woman should die giving birth, but especially not among skilled birth attendants. Why did Khadija die? Was it really for lack of a unit of blood? Her death was needless and preventable. Every skilled birth attendant should know the steps to prevent and treat postpartum hemorrhage.

My interest in maternal mortality is professional as well as personal. In 1999, I adopted a two and a half year old boy whose biological mother died from postpartum hemorrhage, following the mismanagement of a second trimester pregnancy loss. She was a beautiful, 26-year old Ethiopian woman, whose life was needlessly cut short, leaving her child orphaned. I cannot forget this woman as I see her daily in the face of my son.

Ethiopia first captured my attention for its ancient history, unique culture, and stunning topography. I have traveled to the holy city of Lalibela to see the monolithic, rock-hewn churches of the 13th century known as the eighth wonder of the world (McClure, 2007). The oldest humanoid skeleton, known as Lucy, is dated over three million years old, and was found in Ethiopia (Finneran, 2006). Having adopted Christianity in the fourth century, Ethiopia is the oldest Christian nation in the world. Many biblical scholars believe the Garden of Eden is located somewhere in Ethiopia and the Ark of the Covenant in the northern town of Axum (Morris, 1999).

However, behind the unique beauty and history of Ethiopia are struggles with deep-seated political conflicts, draughts, famines, and communicable diseases. Major health problems such as malaria, tuberculosis, and AIDs are endemic. There is a high infant mortality rate thought to be due to poor sanitation and malnutrition. The Ethiopian government has been working to improve health conditions by launching educational campaigns (Cho & Witte, 2005). For many women these efforts have come too late.

Ethiopian women live in a country with one of the highest rates of maternal mortality (WHO et al., 2012). According to the World Bank, Ethiopia is the second largest populated African country with over 93 million people. The 2011 Ethiopian maternal mortality ratio was reported at 676 deaths per 100,000. This means that, of the 2.7 million Ethiopian pregnancies expected per year, there will be a corresponding 18,000 maternal deaths (Bank, 2012).

In Ethiopia, as in many developing countries, postpartum hemorrhage (PPH) is the leading cause of maternal mortality. Rural areas have the highest rates of PPH due to the inadequate facilities and lack of trained health workers. According to Hadis and

Woyessa (2012), accurate statistics on the number of maternal deaths due to PPH are difficult to find but suggest it may be between 25-30%. According to Khan et al. (2006), the maternal mortality rate due to PPH in Africa is 33.9%. Discrepancies are thought to be due to under diagnoses of PPH and under reporting of maternal deaths.

PPH is the leading cause of maternal death despite being largely preventable (Khan, Wojdyla, Say, Gülmezoglu, & Van Look, 2006). It can be prevented through an evidence-based clinical practice called active management of the third stage of labor (AMTSL). The third stage of labor begins with birth of the newborn and ends with delivery of the placenta. The third stage of labor is the time of greatest risk for PPH, because the uterus may not contract well after birth. When the uterus does not contract normally following birth, it is called uterine atony. The leading cause of PPH is due to uterine atony (POPPHI, 2007). Sixty percent of women who die of PPH die within the first 24 hours after delivery. AMTSL reduces the occurrence of severe postpartum hemorrhage by 60-70% (Stephenson, 2007). In a study by McCormick, Sanghvi, Kinzie, and McIntosh (2002), AMTLS was demonstrated to be a safe, cost effective, and sustainable intervention consisting of specific steps that can be learned by a skilled birth attendant (SBA). The WHO (2004) defines an SBA as:

> A health professional with midwifery skills, such as a midwife, and doctors and nurses trained in the skills needed to manage normal (uncomplicated) progress of childbirth, immediate postpartum, and the identification and referral of complications of the woman and newborn. (p. 1)

This prophylactic procedure was considered so effective in preventing severe blood loss that the International Confederation of Midwives (ICM) and the International

Federation of Gynecology and Obstetrics (FIGO) issued their first International Joint Statement (2003) endorsing the use of AMTSL as the universal standard of care.

Problem Statement

In a large five-country quantitative study, Harvey et al. (2007) found a wide gap between evidence-based standards and provider competence in AMTSL. In 2008, USAID sponsored a survey by Stewart (2010) on the practice of AMTSL by SBAs in Uganda, Tanzania, and Ethiopia. The survey showed the proper use of AMSTL according to the ICM/FIGO definition in only 29% of the deliveries observed in Ethiopia. Even with a more relaxed definition to give the uterotonic within three minutes of delivery instead of one minute, the utilization rate was increased to just 40%. The study reported significantly differing rates among regions, with three of six regions showing zero use of AMTSL no matter the definition used. In a seven-country study by Stanton et al. (2009), the application rates of AMTSL by SBAs, even in areas where knowledge scores where high, showed poor adherence; Ethiopia demonstrated correct use of AMTSL in only 0.5% to 32% of deliveries observed.

Despite its international endorsement and efficacy, AMTSL has not been appropriately adopted into practice by most SBAs in Ethiopia. Therefore, it was my assumption that within a given regional hospital in Ethiopia the application rates of AMSTL by skilled birth attendants would be low as well. The purpose of this qualitative study was to investigate and analyze the use of active management of the third stage of labor among skilled birth attendants in a rural regional hospital in southern Ethiopia.

Baxter and Jack (2008) provide recommendations for developing theoretical research propositions, which they consider an essential component of a rigorous case

study. I was able to apply these guidelines to provide direction to this case study investigation and the analysis. I developed six precise propositions that guided the formation of my interview questions for this study (see Table 1, p. 38). Each proposition has a distinct focus that aided in placing limits on the scope of the study:

1. A SBA is trained to perform AMTSL.
2. Despite its international endorsement and efficacy, AMTSL has not been appropriately adopted into practice by most SBAs.
3. AMTSL is endorsed by the Ethiopian Ministry of Health in the National Guidelines for the prevention of postpartum hemorrhage.
4. Oxytocin and syringes are regularly available for use in the hospital labor and delivery unit.
5. The five leading causes of maternal mortality are: postpartum hemorrhage, infection, pregnancy-induce hypertension (PIH), obstructed labor, and unsafe abortion.
6. Skilled birth attendants often (94%) perform potentially harmful practices increasing the risk of postpartum hemorrhage and other third-stage complications.

The propositions also served as the foundation for the design of a conceptual framework on the decision making process by SBAs on the management of the third stage of labor (see Figure 1, p.41). The constructs from the conceptual framework provided the basis to answer the research questions.

Research Questions

1. How was management of the third stage of labor practiced by the skilled birth attendants?

2. What issues influenced the decision-making process of the skilled birth attendants in the management of the third stage of labor?
3. What internal factors influenced the decision-making process of skilled birth attendants in the management of the third stage of labor?
4. What external factors influenced the decision making process of skilled birth attendants in the management of the third stage of labor?

Key Terms

The following terms and acronyms are used throughout the study. Definitions have been provided for understanding and clarity as well as for ready reference.

Active Management of the Third Stage of Labor (AMTSL) - The International Confederation of Midwives and the International Federation of Gynaecology and Obstetrics (ICM/FIGO) set the criteria for defining the precise steps in AMTSL. The three steps of AMTSL are:

1. Oxytocin 10 units IM/IV given within one minute of fetal delivery.
2. Gentle traction to the umbilical cord with manual support to the uterus.
3. Fundal massage immediately after delivery of the placenta, followed by uterine palpation every 15 minutes for 2 hours after placental delivery (FIGO, 2003).

Postpartum Hemorrhage (PPH) - Vaginal bleeding of 500 ml or more within 24 hours after childbirth (Prendiville et al., 2009).

Skilled Birth Attendant (SBA) - A health professional with midwifery skills, such as a midwife, and doctors and nurses trained to in the skills needed to manage normal (uncomplicated) progress of childbirth, immediate postpartum and the identification and referral of complications of the woman and newborn (WHO, 2004, p. 1).

Traditional Birth Attendant (TBA) - a person – usually a woman – who assists the mother at child birth and who initially acquired her skills delivering babies by herself or working with other TBAs (WHO, 1978).

Uterine Atony - Failure of the uterus to contract after delivery of the placenta associated with excessive bleeding from the placental implantation site (POPPHI, 2007).

Uterotonic - An agent given to increase the tone of the uterine muscle (Dorland, 2007).

Limitations and Delimitations

A noted limitation in a study of this type, according to Denzin and Lincoln (2012), is the risk of exposure to participants that could include embarrassment, a loss of employment, or standing in the community. Therefore, I carefully reviewed with each SBA who participated in the interviews, the ethical procedures that would be followed in this study. I reassured each participant of the limited accessibility of all data: audio recordings of the interviews were password protected on my computer and kept in a secure location throughout the duration of the study.

I was aware of time constraints as a typical limitation of qualitative research. I remained mindful of the fact, that I would not be able to control if a participant was called to a delivery during an interview or became ill. I was prepared that there could have been too many participants wanting to be in the study or not enough. I also knew it would be unpredictable to know if participants would drop out or no-show.

This qualitative research study was delimitated as a single case study research model, bound by place and time. As the principal investigator, I traveled to the southern Oromia region of Ethiopia to conduct fieldwork during July of 2014. The focus of the

research was on the SBAs employed by the one regional hospital and the multiple sources of information that were used in data collection to construct a detailed picture of how the SBAs manage the third stage of labor. Another delimitation was the number and criteria of participants arranged to be enrolled. I interviewed six SBAs according to the WHO definition (2004). The SBAs were current employees of the regional hospital for ease of accessibility and for the increased likelihood of finding participants who met criteria. The hospital staff employs doctors, midwives, and nurses who have graduated from similar government medical, midwifery and nursing school programs.

Cross-Cultural Considerations

There were several cultural considerations that I kept in mind throughout the study. I was concerned that the interview questions might not translate well into local dialects from Amharic, the national language, and again into English. A local male nurse assisted in this area. His assistance decreased the possibility of language and cultural errors in the data collection and analysis.

Several challenges for a qualitative study in general were expected. I was also aware there could have been limitations and study challenges specific to working in a resource-limited country such as Ethiopia. Time limitations can occur during any study but in this region there would be an increased risk for adverse weather conditions such as with a prolonged rainy season. I was prepared that road conditions could have made travel difficult or impossible and delay conducting the interviews. The study was intentionally scheduled one month after the rainy season to minimize the risk of such travel delays. I also realized there could have been national or regional political instability that could have also caused delays. Community life interruptions, such as

religious holidays, vacations, illness, funerals, weddings, or births and the need to do seasonal agricultural work, could have also significantly altered the data collection timeframe.

Ramadan, the Islamic month of fasting all day and feasting at night was June 28-July 28. I was mindful this holiday observance could have facilitated or hindered data collection. While fasting all day participants might have welcomed being distracted by participating in the interview process. Female Muslim participants might have stayed home to cook the evening celebratory meal. These factors were unknown and out of my control. However, I made every attempt to respect those fasting and efforts were made to accommodate the appropriate interview times for these participants.

Summary

PPH is the leading cause of maternal death despite being largely preventable (Khan, et al., 2006). It can be prevented through an evidence-based clinical practice called AMTSL, which can be learned by a SBA. Despite its international endorsement and efficacy, AMTSL has not been appropriately adopted into practice by most SBAs. The purpose of this study was to investigate and analyze the use of active management of the third stage of labor among skilled birth attendants in a rural regional hospital in southern Ethiopia. The next chapter presents the review of the literature on the status of maternal mortality worldwide and global efforts that have been made towards its prevention.

Chapter 2

Review of the Literature

Introduction

The World Health Organization (WHO) defines maternal mortality as the death of a woman during pregnancy, childbirth, or within 42 days after delivery (2005). Every year thousands of women and girls continue to die from the complications occurring during pregnancy or childbirth (Nour, 2008). In fact, for over two decades, the magnitude of maternal mortality worldwide has best been described as imagining a jumbo jet filled only with pregnant or postpartum women on board crashing into the sea every 4 hours, day-in, day-out, 365 days of the year (WHO, 1986, p. 175). This means that one woman every one minute has been dying around the world from pregnancy-related complications for years. The overwhelming majority of these deaths occur in developing countries. According to Deborah Armbruster, Director of the USAID-funded Prevention of Postpartum Hemorrhage Initiative Project (POPPI), maternal mortality is the most striking inequality in public health (POPPI, 2007). There are social and geographic differences in maternal mortality rates across nations and even within countries. Thirty-six of the forty countries with the world's highest rates of maternal death are in sub-Saharan Africa. According to the United Nations Population Fund (UNFPA, 2012), a woman in that region has a 1 in 39 lifetime risk of dying due to pregnancy or childbirth related complications compared to a 1 in 3,800 risk in industrialized nations. Maternal mortality is higher among the poor and those living in rural areas. Young adolescents have a higher risk of death due to pregnancy-related complications than 20- and 30-year old pregnant women.

In a global effort to improve maternal health, the UN Declaration in September of 2000 included as its fifth Millennium Developmental Goal (MDG 5) a 75% reduction in the maternal death rate by 2015. With many countries embracing MDG 5, there has been an estimated 47% reduction in maternal deaths worldwide (UNFPA, 2012). However, despite focused efforts over the past twenty years towards meeting this millennium goal, maternal mortality remains a major health challenge. The global maternal mortality rate (MMR) has decreased by an average 3.1% annually, but this falls short of the MDG target of 5.5% reduction per year (WHO, UNICEF, UNFPA, & the World Bank, 2012).

The purpose of this review was to provide an update on the status of maternal mortality worldwide in the following areas: geographic incidence and distribution, major direct and indirect causes of maternal deaths, and the past and current global efforts that have been made toward its prevention and reduction.

Incidence and Global Distribution of Maternal Mortality

A comprehensive summary of the incidence and distribution of maternal deaths in a given population is important for countries to know for decision making and fiscal planning of maternal and family planning programs, as well as for international donor partnerships and allocation of resources (Khan et al., 2006). However, it is clear from the literature that measuring maternal mortality is an epidemiologic challenge (Stanton et al., 2001; Hill et al., 2007; Hogan et al., 2010). This is in spite of the fact that there are standardized definitions and measurements used to determine the relative risk of death from pregnancy in a population. Maternal mortality ratio (MMR) is the number of maternal deaths during a given time period per 100,000 live births during the same time period. Maternal mortality rate (MMRate) is the number of maternal deaths in a given

period per 100,000 women of reproductive age during the same time period (Noor, 2008). The lifetime risk of maternal mortality is the probability of maternal death during a woman's reproductive life, frequently expressed in terms of odds (WHO, 2005).

Hill et al. (2007) found that it is difficult to accurately measure the levels of maternal mortality in a population for several reasons. Among the concerns listed were underreporting, data reliability, monitoring accuracy, and poor surveillance and registration systems. Approaches for measuring maternal mortality in other studies also found that accuracy in identifying maternal deaths was challenging, particularly where there was no civil registration or records of deaths. It was also problematic when the pregnancy status of a deceased woman was not documented. A study conducted by AbouZahr and Wardlaw (2004) pointed out that, in many developing countries, there is no place on the death certificate to include the cause of death. In developed countries, a special investigation called a Confidential Enquiry into Maternal Deaths (CEMD) may be performed to more accurately determine if the death should be counted as a maternal mortality. A 2000-2002 CEMD reported 44% more maternal deaths than were reported in the routine civil registration system (Lewis, 2004). Another study on the accuracy of the number of maternal deaths reported in civil registration systems has shown that the true number of maternal deaths could be 200% higher than recorded in routine reports (Deneux-Tharaux et al., 2005).

In countries where a civil registration system is not in place, determining the MMR is based upon a variety of other simple but reliable fact-finding practical methods. These include household surveys, reproductive-age mortality studies (RAMOS), verbal autopsies, and censuses. Population-based surveys involving samples greater than 50,000

are expensive or not very feasible in small populations. In order to find a way to overcome this problem, the Sisterhood method was developed in the late 1980s by WHO (Graham, Brass, & Snow, 1989). In this method, one respondent provides information about several other women, making it better suited for household surveys in small populations. In the Indirect Sisterhood method (AbouZahra & Wardlaw, 2003), an adult female is asked four simple questions: How many sisters in all from the same mother? How many sisters reached adulthood? How many have died, and were any sisters who died pregnant around the time of their deaths? A variation of this method is called the Direct Sisterhood method and focuses on a narrower timeframe by asking more complicated questions about the age and time of the sister's death (Hill et al., 2006). Despite the concerns about data reliability and monitoring accuracy, international public health statistics have repeatedly shown a huge discrepancy between maternal mortality in developing countries as compared to developed nations (Ronsman & Graham, 2006; Khan et al., 2006). It was no surprise to find that the highest maternal mortality rates are in Africa, and the lowest rates are in Western nations. An additional study by WHO, the United Nations Children's Fund (UNICEF), the UNFPA, and the World Bank (2007) also showed that the adult lifetime risk of maternal death is highest in Africa, followed by Oceania and Asia, while the developed regions have the smallest lifetime risk.

Hogan et al. (2010) looked at 181 countries and found that Niger had the highest estimated lifetime risk of 1-in-7 chance of dying in childbirth, while Ireland had the lowest lifetime risk of 1-in- 48,000. The highest MMRs are found among the poor and illiterate and are significantly higher for those living in rural areas (Ronsman & Graham, 2006).

The Causes of Maternal Mortality

Pregnancy and childbirth are normal physiologic events in a woman's life (Kennedy & Shannon, 2004). However, there are complications that can occur and, in certain circumstances, cause the death of the mother (Horon & Cheng, 2001). In the developed world, maternal deaths are extremely rare. In the United Kingdom, as in many developed nations, the leading direct causes of maternal deaths are thrombosis, ectopic pregnancy, and sepsis. Other indirect causes are cardiac disease, obesity, and psychiatric problems (Ali, 2009). In a large research study by Kinney et al. (2010), the five major direct causes of death in the developing world were confirmed to be hemorrhage, infection, pregnancy-induced hypertension (PIH), obstructed labor, and unsafe abortion.

PPH is the major cause of maternal mortality in the world and is defined as the loss of 500 ml or more of blood within 24 hours after delivery and is caused by uterine atony (POPPHI, 2007; Ali, 2009). For many women, this amount of blood loss does not lead to problems. But for severely anemic women, blood loss as little as 250 ml can be life threatening. This is especially important to consider for women living in developing countries, where many women are severely anemic.

Trying to predict who will experience PPH based on risk factors is essentially impossible, because two-thirds of the women who have a PPH have no risk factors (POPPHI, 2007). According to WHO, each year 14 million women experience PPH (WHO, 2005). PPH usually occurs unexpectedly and can lead to death in under two hours if untreated. Therefore, all women are considered at risk, and prevention of PPH must be incorporated into care provided at every birth (McCormick et al., 2002). In fact, PPH accounts for over 25% of maternal deaths in Latin America and as high as 30% in

Asia. Some countries in Africa have reported a 38% MMR rate due to PPH (Khan et al., 2006).

Malaria, anemia, HIV/AIDS, and cardiovascular disease can complicate pregnancy and are considered indirect causes of maternal mortality (Lawson, Harrison, & Bergström, 2001). Malnutrition, as well as a poor diet, can lead to anemia, folic acid, and iodine deficiencies, which also contribute to maternal mortality (WHO, 2008). HIV-infected mothers are 10 times more likely to die during pregnancy than non-infected mothers. Poverty also plays a significant role in maternal mortality. Poor women lack access to prenatal care and have little or no access to referral hospitals (Lawson et al., 2001; Khan et al., 2006; Gabrysch & Campbell, 2009).

Gender discrimination is another factor in maternal mortality. Women in the developing world often have little or no education and therefore lack knowledge to seek prenatal care and services. These women frequently have little or no autonomy to make health care decisions, resulting in life-threatening delays and unnecessary deaths (Geubbels, 2006). This finding, among others, has led to the development of the Three Delays Model among the leading causes of maternal mortality. The Three Delays are: 1) delay in deciding to seek care, 2) delay in reaching care in time, and 3) delay in receiving adequate treatment (Ramanathan, 2009).

Gender based violence in the maternity setting has become a growing topic of concern among those interested in maternal health and human rights. According to the outcome of six regional focus groups in Ethiopia, the number one reason most women still give birth at home is due to disrespect and abuse of pregnant women in health facilities (Ramsey, 2012). This obstacle was mentioned more than geographic or

financial barriers typically presented. According to Browser and Hill (2010), many countries have conducted studies showing evidence of the negative impact of disrespect and abuse in facility-based childbirth. Defining disrespect and abuse has been somewhat difficult, as it may be perceived differently from one culture to another. However, what may be seen as a cultural practice may, in fact, be a practice that has become normalized over time. Bowser and Hill (2010) has categorized disrespect and abuse that ranges from not being told information to verbal abuse, beatings, receiving non-consented care, non-dignified care, discrimination, detention, and abandonment. Disrespect and abuse in the labor ward represents suffering for women during the most vulnerable time of life. A correlation between abusive care and the quality of the care provided has been noted (Jolivet, 2012). The goal to increase the number of women giving birth with a skilled attendant as a means to decrease maternal mortality will not be met until women are assured that facility-based childbirth will be competent, women-centered, and respectable maternity care (Reis, Deller, Carr, & Smith, 2012).

Global Efforts Towards Prevention and Reduction

With the 2015 deadline upon us, little time remains to accomplish the Millennium Developmental Goal of decreasing maternal mortality by 75%. A look at data towards progress is important to understanding global strategic interventions and prioritization for successful achievements (Campbell & Graham, 2006). International organizations have been focusing on the preventative steps that can reduce maternal mortality by providing quality reproductive health care for women. These services include improved labor and delivery care, offering family planning services, the provision of safe abortion, and increased prenatal care (Bullough et al., 2005). According

to the most recent African Union Report (2013), maternal deaths could be decreased by increasing the percentage of births delivered by a SBA, improving contraceptive use, increasing immunization coverage, and better-quality maternal nutrition.

Postpartum Hemorrhage

As the leading cause of maternal deaths a great deal of effort has been concentrated on the prevention and treatment of PPH (Kinney et al., 2010; POPPHI, 2007). Sixty percent of women who die of PPH die within the first 24 hours after delivery. Active management of the third stage of labor (AMTSL) reduces the occurrence of severe postpartum hemorrhage by 60-70% (Stephenson, 2007). The third stage of labor begins with birth of the newborn and ends with delivery of the placenta. This is usually an uneventful stage and considered physiologic by providers. For many years, birth attendants were taught to practice expectant management of the delivery of the placenta through a hands-off approach while waiting for signs of the placenta to deliver spontaneously (Prendiville, Elbourne, & McDonald, 2009). The third stage of labor is also the time of greatest risk for PPH, because the uterus may not contract well after birth. When the uterus does not contract normally following birth, it is called uterine atony. The leading cause of PPH is due to uterine atony (POPPHI, 2007).

In a study by McCormick, Sanghvi, Kinzie, and McIntosh (2002), AMTSL was demonstrated to be a safe, cost effective, and sustainable intervention consisting of specific steps that can be learned by a skilled birth attendant (SBA). The WHO (2004) defines an SBA as:

A health professional with midwifery skills, such as a midwife, and doctors and nurses trained in the skills needed to manage normal (uncomplicated) progress of

childbirth, immediate postpartum and the identification and referral of complications of the woman and newborn. (p. 1)

Prevention

According to Lalonde (2013), PPH prevention activities need to be carried out within a comprehensive management package of prevention and treatment. The timely provision of AMTSL as a prophylactic intervention of PPH is a key component of evidence-based clinical practices within this package (WHO, 2007). AMTSL involves following simple but precise steps that can be performed by a SBA during the third stage of labor to prevent hemorrhage:

1. The use of oxytocin 10 units IM/IV within one minute of fetal delivery.
2. Gentle traction to the umbilical cord with manual support to the uterus.
3. Fundal massage immediately after delivery of the placenta, followed by uterine palpation every 15 minutes for 2 hours after placental delivery (FIGO, 2003).

The International Confederation of Midwives (ICM) and the International Federation of Gynecology and Obstetrics (FIGO) issued their first International Joint Statement (2003) endorsing the use of AMTSL as the universal standard of care. Since that endorsement, there have been revisions and updates on the precise definition and practice of AMTSL, but there have never been suggestions for changes in training or implementation of the practice of AMTSL. The latest WHO (2012) recommendations regarding AMTSL reaffirm and refine this lifesaving intervention as best practices. The new recommendations serve to highlight the administration of the uterotonic as the most important AMTSL component and to ensure that every woman is offered it at the time of delivery. A recent study in Ghana (Schack, Elyas, Brew, & Pettersson, 2014) found poor

AMTSL adherence rate using the 2008 national guidelines. But, according to the 2012 WHO recommendations in which CCT and fundal massage are now considered optional, the Ghanaian midwives are actually performing AMTSL correctly. These findings emphasize the need for continuous updated guidelines.

Skilled Birth Attendants

According to AbouZahr and Wardlaw (2001) the proportion of deliveries assisted by a SBA is now being used as a key proxy indicator for monitoring global progress towards decreasing maternal mortality. Evidence to support a causal relationship between skilled attendance and maternal survival has yet to be established. However, there is sound clinical reasoning for ensuring a skilled attendant during a woman's labor and delivery as well as during the postpartum period (Robinson & Wharrad, 2001). The Safe Motherhood National Policy on SBAs was no doubt influential in setting the additional MDG 5 target for the increase in the proportion of births attended by a skilled attendant to 90% by 2015 (Starrs, 2006).

In countries where most women deliver at home, often without a SBA, the practice of AMTSL is not implemented. But, even when women do have access to skilled care they often still do not receive AMTSL. In a seven-country study (Stanton et al., 2009), correct use of AMTSL was demonstrated in only 0.5 % to 32 % of observed deliveries. This was found in facilities that had the medications needed for AMTSL and among providers trained in AMTSL. A USAID funded study (POPPHI, 2009) assessed the rates of AMTSL for Bangladesh 16 %, Benin 18 % and Indonesia with the highest rate of adherence at 32 %. For whatever reason despite its efficacy most SBAs have not yet adopted the utilization of AMTSL into practice, and those that have, performed it

incorrectly.

Prenatal Care

The aim to improve prenatal services for pregnant women has had mixed reviews. Early and consistent prenatal care has long been held as essential to assess and treat problems such as anemia and malaria, and the referral of high-risk pregnancies (Carroli, Rooney, & Villar, 2001). However, many of the prenantal clinics were inadequately staffed with poorly trained personnel who made numerous inappropriate referrals inundating the referral clinics (Boller, Wyss, Mtasiwa, & Tanner, 2003). These findings led to the preliminary statement that prenatal care has little impact on decreasing maternal mortality. In actuality the need for prenatal care was not being questioned but whether the allocation of resources was directed to the area with the greatest impact on maternal mortality (Carroli et al., 2001).

Throughout the world, an increase in women receiving prenatal care has been noted. Most notable was North Africa where there was a 70% increase in the number of women who were seen by a skilled health worker at least once during their pregnancies. Likewise, Kinney et al. (2010) reported a 50% increase in prenatal attendance in Southern Asia and Western Asia. However, disparities were noted among class groups, such as wealthy women who were 33% more likely to receive prenatal care than poor women. This was especially true in Southern Asia, North Africa, and sub-Saharan Africa. Large disparities also exist between urban and rural women receiving prenatal care. Between 1990 and 2008, this gap narrowed in sub-Saharan Africa, where rural women who received prenatal care at least once in their pregnancies improved 11% versus a rate of 5% among urban women (Hogan et al., 2010). This study argues that the increase in

prenatal care is especially important in light of the number of maternal deaths due to HIV/AIDS and access to antiretroviral.

Women-Centered Care

A Nigerian cross-sectional study of 460 women found that two thirds of these women had a negative perception of antenatal care (Fagbamighe et al., 2013). This finding is similar to the fear of disrespect and abuse in the maternity ward and is also a deterrent to care (Bowser & Hill, 2010). According Hunter (2006), there needs to be reciprocity in the provider-mother relationship in the community setting. The value of antenatal risk assessment and preventative treatment must not be underestimated if we hope to make significant progress towards improving maternal health. Kirkham (2010) suggests that pregnancy is a spiritual, educational, family, and community experience. During antennal care, there is the opportunity to develop the provider-mother relationship. This relationship can affect the pregnant women's decisions concerning antenatal and delivery care. Woman-centered care is respectful care that responds to both the physical and emotional needs of the woman. Improving the quality of maternity care can directly reduce maternal and neonatal deaths (Getachew et al., 2011).

Program Evaluation

Accurately evaluating programs, countries, and overall global progress in the reduction of maternal mortality is a significant challenge (Khan et al., 2006). Two thirds of countries still do not have the methodologies to accurately collect, assess, and evaluate data. Daneux-Tharaux et al. (2005) suggest, given that maternal deaths are both misreported and underreported, the accuracy of data must always be questioned, and trends should be cautiously interpreted. The 2000 Millennium Development Goals were

designed to be measured yearly and achieved by 2015 (UN, 2008). As previously mentioned, one indicator used to measure MDG 5 progress is the proportion of deliveries attended by skilled health care personnel. In sub-Saharan Africa, a 4% increase was shown over the past few decades (Freedman, 2005). Burkina Faso and Benin have noted increased SBAs over the past ten years by 12% and 18%. Ghana has also achieved an increase in SBAs, thought to be due to their new 2008 National Health Insurance scheme, which includes free medical care for all pregnant women (Kinney et al., 2010). Unfortunately, the Millennium Development Goals report (2008) also reported that little progress was reported towards improvement in maternal health, especially in Southern Asia and sub-Saharan Africa. Additionally, the report showed a less than 1% per year decrease in maternal mortality during 1990 – 2005. This was below the 5.5 % annual improvement rate required to meet the UN target goal by 2015. Hill et al. (2007) found a 2.5 % decrease in all counties with data during this same time period but no significant reduction in MMR in sub-Saharan Africa.

In a large-scale international study on maternity mortality, Hogan and colleagues (2010) reported substantially differing news on the progress being made towards MDG 5. Using a data set three times larger than previously used by other researchers and with improved predictive validity tests, researchers were able to construct a database of 2651 maternal mortalities from 181 countries from 1980-2008. This study estimated 342,900 worldwide maternal deaths in 2008. These estimates are significantly down from the 1980 estimation of 526,300. Most notable were the reported rates of yearly decline during 1990-2008, which varied across countries, but all showed declines. The Maldives showed an 8.8% decline, and a 5.5% reduction was seen in Zimbabwe. In addition, over

50% of all maternal deaths in 2008 were found to occur in only six countries; India, Pakistan, Afghanistan, Nigeria, Ethiopia, and the Republic of the Congo.

Indeed, despite MDG 5 progress, maternal mortality continues to be a serious problem in certain developing counties. In Ethiopia, a large nation with a population of over 93 million, the 2011 MMR was reported at 676 deaths per 100,000. This means that, of the 2.7 million Ethiopian pregnancies expected per year, there will be a corresponding 18,000 maternal deaths (Bank, 2012).

Maternal Mortality in Ethiopia

Ethiopia is also one of 57 counties worldwide with a noted severe shortage of health workers (GWA, 2008). According to the World Health Statistics (WHO, 2011), Ethiopia has only two medical doctors per 100,000 people. The ratio of midwives and nurses, the health professionals who provide the most direct patient care is also critically low with one per 74,086 people. In rural Ethiopia 28% of women are attended by a traditional birth attendant (TBA). The majority of women (61%) deliver with a relative or family friend. Five percent of women deliver their babies alone without any type of assistance. These women in particular are not aware of the danger signs during pregnancy, labor, delivery and the weeks following delivery, which contributes to delays in seeking skilled care. There are only 119 hospitals in Ethiopia. These facilities are short staffed with insufficient supplies and equipment thought to be due to financial constraints and poor management skills (Hadis & Woyessa, 2012).

Efforts in Reduction

Ethiopia is the least urbanized country in the world with only 16% of the population living in urban areas. Efforts to reduce maternal morality are complicated by

the vast and varied geography of Ethiopia with its high mountain regions, and other areas lying meters below sea level, which makes transportation to health care facilities difficult if not impossible (Gabrysch & Campbell, 2009). Ethiopia is also home to over 80 ethnic groups and 90 languages, adding to the cultural and socioeconomic barriers to prenatal care. Substandard and lack of primary and referral care are well known factors contributing to maternal deaths in Ethiopia. A national study (Deribe et al., 2010) identified families of the deceased not understanding the severity of the situation, leading to delay in seeking care as one of the most significant contributing factors to maternal death.

In Ethiopia, as in many developing countries, postpartum hemorrhage (PPH) is the leading cause of maternal mortality. Rural areas have the highest rates of PPH due to the inadequate facilities and lack of trained health workers. According to Hadis and Woyessa (2012), accurate statistics on the number of maternal deaths due to PPH are difficult to find but suggest it may be between 25-30%. According to Khan et al. (2006), the maternal mortality rate due to PPH in Africa is 33.9%. Discrepancies are thought to be due to under diagnoses of PPH and under reporting of maternal deaths.

As other countries and despite its efficacy, AMTSL has not been appropriately adopted into practice by most SBAs in Ethiopia. Harvey et al. (2007) in a large five-country quantitative study found a wide gap between evidence-based standards and provider competence in AMTSL. In a 2008 USAID, sponsored a survey by Stewart (2010) on the practice of AMTSL by SBAs in Uganda, Tanzania, and Ethiopia. The survey showed the proper use of AMSTL according to the ICM/FIGO definition in only 29% of the deliveries observed in Ethiopia. Even with a more relaxed definition to give

the uterotonic within three minutes of delivery instead of one minute, the utilization rate was increased just to 40%. The study reported significantly differing rates among regions, with three of six regions showing zero use of AMTSL no matter the definition used. In the seven-country study by Stanton et al. (2009) the application rates of AMTSL by SBAs, even in areas where knowledge scores where high, showed poor adherence; Ethiopia demonstrated correct use of AMTSL in only 0.5% to 32% of deliveries observed.

To understand the challenge of increasing provider use of AMTSL the Ethiopian Society of Obstetricians and Gynecologists conducted a national assessment of the use of AMTSL in health care facilities (POPPHI, 2007). The key findings were that oxytocin was used 68% of the time. Ergometrine was used 28% and usually after the delivery of the placenta. These uterotonics were noted to be improperly stored. Only 29% of the facility births received AMTSL. A 2008 USAID sponsored a survey by Stewart (2010) on Uganda, Tanzania, and Ethiopia and confirmed these findings. In 2011, Getechew et al. conducted a study of Ethiopian Regional Hospitals. The AMTSL rate was still at 29% but without applying the most current 2012 guidelines. Harmful birth practices during the third stage of labor were observed in over a third of the deliveries which could potentially increase the risk of PPH. The study by Stanton et al. (2009) showed a lack of fundal massage immediately after the delivery of the placenta possibly indicating inadequate postpartum observation of the patient during the time of greatest risk for PPH and maternal death. Other barriers identified included knowledge gaps, no available written resources, insufficient staff, inadequate supplies, and lack of training opportunities (Stewart, 2010). A study by Croft et al. (2013) points out that a lack of knowledge retention may indicate a need for training and skills review on an annual cycle.

Midwifery Education

A study looking at midwifery pre-service curriculum quality by Fullerton et al. (2010) pointed out concerns with midwifery education in Ethiopia. The curriculum was developed by education experts with very little input from midwifery educators. It was noted that the curriculum is not linked to any expected clinical midwifery practice outcomes. Clinical instructors were found to not have current clinical practice experience and some were not even qualified midwives. This lack of competent clinical supervision has no doubt contributed to the perpetuation of non-beneficial and non-indicated practices. According to Getechew et al. (2011), some of the practices are not just non beneficial but are actually harmful. The most common harmful practices related to an increase in PPH were applying fundal pressure in the second stage of labor and manual exploration of the uterus after delivery. However, the UNFPA (2014) reported the National Standard Midwifery curriculum was updated in 2010.

The Ethiopian Midwives Association

The Ethiopian Midwives Association (EMA) since 2010 has made significant development as a professional organization. It is now recognized as one of the most important partners in the reduction of maternal and child mortality in Ethiopia (EMA, 2013). As part of the organizations strategy EMA is committed to investigating and addressing the deficits in midwifery education and services. This includes providing training in pedagogy and continuing education for midwife educators. EMA has been working with government regulatory and licensing authorities to develop a standard of practice for midwives based on ICM competencies. In 2011, EMA also developed a professional code of Ethics and Conduct for Midwives in alignment with the ICM

Standards. The ICM codes of Ethics (2008) states midwives are to provide respectful and culturally sensitive care to women and their families. Human caring and relationship skills are basic midwifery core competencies that all SBAs need to demonstrate (ICM, 2011). EMA is committed to the challenged to help eliminate harmful midwifery practices within the culture.

The Ministry of Health

The Ethiopian MOH, as part of its health strategy, has the goal of training 8,635 midwives by 2015. There has been steady progress towards this goal starting with 1, 275 trained midwives in 2008 and 4,753 in 2012. It was reported that 95% of these graduates are currently employed and providing direct midwifery services (EMA, 2013).

Ethiopia has been making intentional efforts over the past few years to specifically address barriers to preventing PPH through AMTSL (Murthy & Smith, 2010). This has included policy and educational mandates (Getechew et al., 2011). The literature suggests a recent global trend in progress by including AMTSL in pre and in-service training programs. Angola and Ethiopia, in particular, were reported to have made significant progress in education and training in the assessment of AMTSL (Smith et al., 2012).

Conclusions

What was made clear from the literature review is that maternal mortality has been and continues to be an unacceptable global crisis. The fact that any woman today would face death while bringing forth life is a violation of human rights and social justice. The studies are clear that the leading causes of maternal death are manageable and preventable (Ali, 2009; Khan et al., 2006; WHO, 2005). The incidence and geographic

distribution are sobering statistics showing that these are poor, rural, illiterate, and uneducated, women and girls who are dying at disproportionate rates throughout the developing world (UNFPA, 2012). In 2000, as an act of international solidarity on this issue, the UN MDG 5 was made to improve maternal health by decreasing maternal mortality 75% by 2015. This is an ambitious goal that serves not only as a worldwide opportunity but also as a humanitarian responsibility. Studies have been conducted on the various strategies to implement the needed changes to meet this challenge. Most of the methods seem to focus around health care systems reform (Bhat, 2006; Campbell & Graham, 2006). However, attempts to improve the infrastructure must be followed by a renewed sense of urgency to address the root causes of maternal mortality, such as inequality in education and economic opportunities for girls. The evidence is clear that educated women are less likely to die of maternal mortality (Khan et al., 2006).

Gaps in the Literature

A gap noted in the literature is the lack of research involving policymakers, civil society, and key investors. Clearly, the literature points out the imprecise surveys and incomplete civil registration that document maternal mortality. It is hard to understand why grassroots civil society organizations and donors have not addressed this matter. Establishing accurate civil registrations that include the cause of death on every death certificate in every country seems a fundamental priority.

Another concern is the cascade of events that occur when a mother dies and the burden it places on the family, community, and government. The maternal mortality rate of a country is indicative of the overall maternal health of that area (UNFPA, 2013). The death of a mother often results in the death of her newborn. UNICEF (2012) reported

that some 4 million newborns die in the first week of life every year from maternal mortality and morbidity. Any children under five years of age previously dependent on their mothers for food, care, and emotional support also become seriously at risk for mortality (UNICEF, 2007).

Maternal Morbidity

In addition, according to the World Bank (WHO et al., 2012), for every woman who dies due to pregnancy-related complications, another 20 women survive but experience severe maternal morbidity. Among the most noted complications are obstetric fistula, pelvic floor damage, chronic infection, infertility, severe anemia, and depression (UNFPA, 2013). Women who survive such severe complications face lengthy convalescence with the associated physical, psychological, social, and economic consequences. The financial burden of medical care and the mother's impaired productivity perpetuate the cycle of poverty.

Provider Burnout

There is also a noted absence in the literature on the concern for the stressful role of SBAs and how they cope with maternal death. The recent study by Miliira & Buzuidenhout (2014) points out how the well being of practitioners can be negatively affected by occupational exposure to maternal death and result in poor work performance and professional burnout. As Ethiopia continues to improve the quality of their educational programs for their doctors, nurses and midwives coping and stress management needs to be a priority topic in the education and training of their health care practitioners.

Latest Findings

The more recent research findings published by the Lancet in April of 2010 demonstrated a significant drop in maternal mortality for the first time in years (Hogan et al., 2010). This was in contrast with previous reports that have shown little or no progress (Hill, 2007; UN, 2008). There was criticism that the report was prematurely announced and its findings were not peer reviewed. It was suggested that those who have been working in the field of maternal health might have been less concerned about research validity and more concerned with loss of future funding. The announcement of progress, according to Hogan et al. (2010), should be received as good news and a way to maintain investor interest not to divert it. The international maternal health community may reject or receive the latest research findings but the statistical debate even with the most positive findings boils down to the fact that pregnant and postpartum women continue to crash into the sea day-in, day-out, 365 days of the year.

Chapter 3

Methodology

Introduction

The literature review provided an appalling background on the unacceptable rate of maternal mortality worldwide and especially in limited resource countries such as Ethiopia. However, it also provided a glimmer of hope for the reduction of maternal mortality through the prevention of PPH. AMTSL has been demonstrated to be a safe, cost-effective, evidence-based life-saving skill that effectively reduces postpartum blood loss and can be learned by a SBA (Stephenson, 2007). The purpose of this study was to investigate and analyze the use of active management of the third stage of labor among skilled birth attendants in a rural regional hospital in southern Ethiopia.

Research Questions

1. How was management of the third stage of labor practiced by the skilled birth attendants?
2. What issues influenced the decision-making process of the skilled birth attendants in the management of the third stage of labor?
3. What internal factors influenced the decision-making process of skilled birth attendants in the management of the third stage of labor?
4. What external factors influenced the decision making process of skilled birth attendants in the management of the third stage of labor?

This chapter addresses the key components of the research process that were used beginning with a description of the study's setting and participants. A discussion on the design, methods, and procedures I chose for this investigation follows. The role of the

researcher, data analysis, ethical considerations as well as potential contributions of the research are also presented.

Setting

The study was conducted in a rural town in the southern Oromia region of Ethiopia. According to the Ethiopian population census (2007) the town has approximately 40, 000 people that represent a diverse ethnic population with Oromo, Somali, and Borena tribes being dominate. The majority of the population is Muslim (54.89%), followed by Ethiopian Orthodox Christians (34.35%), Protestants, who identify themselves as Pentecostal (8.2%) and traditional animists (2.34%).

The study was conducted following the rainy season when the weather was sunny, around 74 degrees, and with scant rainfall. The participants were SBAs who were currently working in the maternity ward at the regional public hospital. This hospital is one of 41 hospitals in the Oromia region and serves the town and surrounding area totaling close to two million people. The hospital has approximately 115 beds and has nine general practitioners, one surgeon, one obstetrician/gynecologist, an x-ray technician and one radiologist, 12 pharmacy personnel, eight lab techs and 69 nurses. In April 2014, the hospital status report included severe overcrowding, limited supplies and equipment, and poor sanitation as major concerns. Not all of the wards have running water due to a sewage problem. The major reasons for hospital admissions are pneumonia, diarrhea, and trauma. Placental retention, pregnancy induced hypertension, and sepsis, were the noted labor and delivery problems. Despite such difficult circumstances the hospital administration is committed to working at strengthening their health systems as part of MDG 4 associated with decreasing child mortality. For example, they hope to renovate

and expand their pediatric ward.

The interviews were intentionally conducted at a location comfortable and convenient for the participants in a secluded courtyard at the hotel where the research team was staying which was within walking distance of the hospital. This provided a quite environment free from work demands. It also provided privacy for the participants.

Participants and Sampling Strategy

I used a purposive sampling strategy verses random sampling because according to Creswell (2007) the intention of qualitative research is not to generalize to a population but to learn from those who best understand the specific interest of this research. I planned a sample size of six to eight participants (SBAs) to interview. This number chosen was small but manageable given the duration of the study. According to Bowen (2005), statistical representation is not the aim but the quality of information. I knew saturation would occur when nothing new was said among the participants and usually occurs with a larger sample size. However, given the specific nature of the research questions I realized a point of saturation among these participants could be reached despite the small sample size. I also chose a smaller sample size to allow more time for the voice of each SBA to be heard. The WHO (2004) definition of a SBA was used for partial participant criteria selection. Additional criteria were established through verification of the following data:

1. Medical, midwifery/nursing education/training.

2. Currently conducts deliveries at the hospital.

Research Design

During the years I spent working in limited resource countries I had the

privilege of living and working closely with many nationals. My role as a nurse midwife opened doors for me to enter into the intimate lives of numerous women and their families. I was an outsider that was allowed inside. As a health care professional and educator I often thought of conducting research on the various issues and problems I encountered. Consequently I was immediately attracted to qualitative research. The idea of being able to explore passionate, practical topics up close and personal resonated with me. Denzin and Lincoln (2011) describe qualitative researchers as those who study things in their natural settings, attempting to make sense of, or interpret phenomena, in terms of the meanings people bring to them (p. 3).

Creswell (2007) points out that both qualitative and quantitative researchers share common terminology to the scientific research process. All research start with the traditional pattern of problem, literature review, question, method, and findings. Qualitative research essentially follows this organizational structure but then varies greatly in its writing format from the scientific approach to storytelling, plays, and poems (p. 42). A significant factor in my decision to do a qualitative study was this variation in format that allows the individual voices of the participants to be heard.

The design of a study does not actually begin with the methodology but with the research assumptions central to qualitative inquiry. According to Yin (2013), the selection process can take up to 20% of a study's overall resources but is worth the effort to do properly to avoid problems in the long run. It was with this thought in mind that I first wrestled through the process of identifying my research questions and was then was able to select the best qualitative method for this study. Therefore, for the purpose of this

research investigation I chose a qualitative investigation using the case study methodology.

Case studies have been around for many years, having become popular in law and medicine as a method of teaching students. Today the case study approach is valuable in health science research and program evaluation. Thirty years and twenty-five definitions later, the key signature of this method of inquiry is its in-depth analysis of a case, involving multiple sources of information, conducted in context over a sustained period of time (Von Whynsberghe & Khan, 2007). A case can be a person, event, activity, process, or group bound by time and place (Creswell, 2007; Yin, 2011).

According to Baxter and Jack (2008), boundaries established in a case study design are similar to the development of inclusion and exclusion criteria for sample selection in a quantitative study. Using a variety of data sources, researchers have the opportunity to describe a phenomenon in context. Researchers are allowed to explore a person or an organization though complex relationships and programs. Yin (2003) points out the deconstruction and reconstruction of various occurrences within a case study. Case study research is designed to answer how and why study questions (Henning, Van Rensburg & Smith, 2005). Yin (2013) also distinguishes between three forms of case study: exploratory, explanatory and descriptive. In addition, a case study can be single, multiple-case or holistic. Stake (2010) identifies case studies as intrinsic, instrumental, or collective.

The case study methodology of my research investigation fit well because it allowed me to answer my research questions on how the SBAs managed of the third stage of labor at the rural regional hospital in southern Ethiopia. It is also bound by time

and place: It was conducted in July 2014 in a regional hospital in a town in southern Ethiopia. I chose a single case delimited within its context. There were several participants and multiple data sources but only one issue. This study was also descriptive in nature because it detailed which propositions and question would be studied from the start (Tobin, 2010). Lastly this single, descriptive case study was instrumental in that it was a particular case being examined in depth to provide insight into an issue (Baxter & Jack, 2008). Through addressing the study propositions and the development of a conceptual framework, I believed valuable insight would be gained into the understanding of how the SBAs manage the third stage of labor and specific teaching implications for AMTLS in the future.

Baxter and Jack (2008) see case study research propositions as essential components that provide direction to the researcher of where to look for relevant data. It was suggested propositions could be seen as hypotheses in that they both make an educated guess about the possible outcome of a study. While a study may have several propositions caution is advised not to have too many to avoid confusion during the data analysis.

By combining pertinent information from the literature review with my professional experience, I was able to develop six precise propositions to guide this case study (see Table 1). Each proposition has a distinct focus and purpose that aided me in placing limits on the scope of the study. In addition, a third column was added to Table 1 to include the facility review checklist and interview questions I formulated from the propositions. The propositions were also used to direct data collection and discussion.

Table 1. Case Study Propositions

Proposition	Example Source	Interview Question
1. A SBA is trained to perform AMTSL. *Conceptual construct: Assessing internal and external factors of influence.*	Professional Experience: Life Saving Skills trainings. Carlough, M., & McCall, M. (2005). Skilled birth attendance: what does it mean and how can it be measured? A clinical skills assessment of maternal and child health workers in Nepal. *International journal of gynecology & obstetrics*, *89*(2), 200-208.	**SBA Interview Question:** Tell me about how do you manage the third stage of labor? Explain what you think about during this time? Describe for me your training in (medical, midwifery, nursing) school about PPH? **Facility Review Checklist**: Does the pre and in-service education for midwives, nurses and physicians include AMTSL in the curriculum?
2. Despite its international endorsement and efficacy, AMTSL has not been appropriately adopted into practice by most SBAs. *Conceptual construct: Assessing internal and external factors of influence.*	Harvey, Steven A, Blandón, Yudy Carla Wong, McCaw-Binns, Affette, Sandino, Ivette, Urbina, Luis, Rodríguez, César, Gómez, Ivonne, Ayabaca, Patricio, & Djibrina, Sabou. (2007). Are skilled birth attendants really skilled? A measurement method, some disturbing results and a potential way forward. *Bulletin of the World Health Organization*, *85*(10).	**SBA Interview Question:** Tell me what you know about AMTSL. If you have practiced this method how did it work? What you think about AMTSL? Tell me about any barriers there are to practicing AMTSL. What do you know about any policies on AMTSL? **Facility Review Checklist:** Does the facility delivery logbook have a column for AMTSL and EBL? If yes how many total deliveries were there for the past three months? How many times was AMTSL recorded for the past three months?

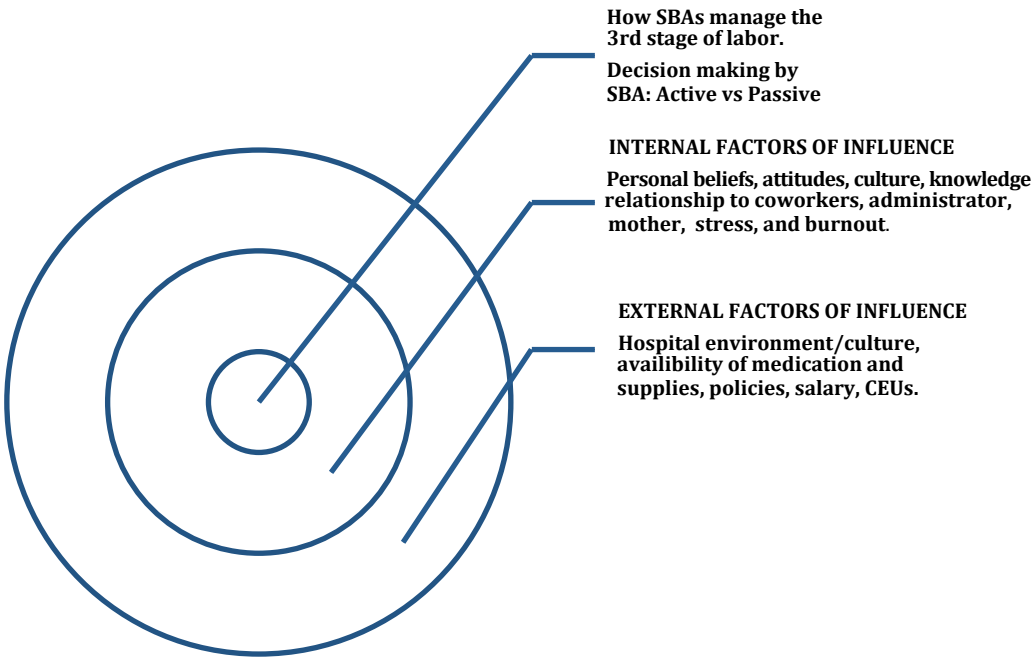
		How many deliveries have an EBL >than 500ml? Was AMTSL indicated for any of the pt. with a PPH? If so how many?
3. AMTSL is endorsed by the Ethiopian Ministry of Health in the National Guidelines for the prevention of postpartum hemorrhage. *Conceptual construct: Assessing external factors of influence.*	Odiyo, O., Lugina, H., Watiti, J., Stewart, H., Oluwole, D., Getachew, A., & Winani, K. (2009). Saving women's lives. Enabling policy environment for high-impact maternal health interventions: Strengthening the practice of active management of the third stage of labor in Africa. (Poster).	**Facility Review Checklist:** Are the National Standard Treatment Guidelines available onsite and does it include AMTSL in its content? Date of Guidelines:_____
4. Oxytocin and syringes are regularly available for use in the hospital labor and delivery unit. Oxytocin is on the Essential Drug list. Oxytocin becomes unstable if stored at > 30 degrees C for more than three months. *Conceptual construct: Assessing external factors of influence.*	Mfinanga, G. S., Kimaro, G. D., Ngadaya, E., Massawe, S., Mtandu, R., Shayo, E. H., ... & Stanton, C. (2009). Health facility-based Active Management of the Third Stage of Labor: findings from a national survey in Tanzania. *Health Res Policy Syst*, *7*(6). Lindtjørn, B. (1987). Essential Drug List in a Rural Hospital Does it Have Any Influence on Drug Prescription? *Tropical doctor*, *17*(4), 151-15	**Facility Review Checklist:** Essential Drug list onsite? Is oxytocin on the list? What is the cost of oxytocin and syringes to the facility and to the patients? What is the procurement practice for uterotonic drugs? Drug list available and what are the contents? (Check for the presence of any uterotonic) Can the proper storage conditions of oxytocin be verified?
5. The five leading causes of maternal morality are; **postpartum hemorrhage**, infection, pregnancy-induced hypertension (PIH), obstructed labor, and unsafe abortion.	Kinney, M., Kerber, K., Black,R., Cohen,B., Nkrumah, F.,Coovadia,H., & Lawn, J.(2010). Sub -Saharan Africa's mothers,newborns and children:where and why	**SBA Interview Question:** Tell me about which obstetric emergencies you experience most often while working? How you feel when managing an obstetric complication?

Conceptual construct: Assessing internal factors of influence.	do they die? *PloS Medicine,*7(6),e10000294	Have you ever seen a woman die or almost die from an obstetric complication? How do you and your colleagues deal with a maternal death?
6. Skilled birth attendants often (94%) perform potentially harmful practices increasing the risk of postpartum hemorrhage and other third stage complications. This may include disrespect and abusive care of women in the labor ward. *Conceptual construct: Assessing internal factors of influence.*	Professional Experience: Observed SBA pushing on the fundus in second stage, given IM Pitocin in first of labor, having women push in first stage, pulling on the cord and pushing on the fundus in the third stage. Stanton, C., et al., (2009). Use of active management of the third stage of labor in seven developing countries. *Bulletin of the World Health Organization,* 87(3), 207 215. Mirzabagi, E., Deepak, N. N., Koski, A., & Tripathi, V. (2013). Uterotonic use during childbirth in Uttar Pradesh: Accounts from community members and health providers. *Midwifery*, *29*(8), 902-910. Reis, Deller, Carr, & Smith (2012). Respectful Maternity Care.	**SBA Interview Question:** Do you use other methods to prevent and treat postpartum hemorrhage that you have learned over time? Tell me about the use of Pitocin. Tell me about the second stage of labor do you do anything special to help the mother push? How long do mothers usually push? Tell me about your relationship with the mothers?

The propositions also assisted me with the foundation for a conceptual model (see Figure 1). A conceptual framework, according to Baxter (2003), serves as an anchor for a study and used in the data analysis. The constructs from the conceptual

framework provided the basis for answering the research questions.

Figure 1. Conceptual model: Decision making by skilled birth attendants on management of the third stage of labor.



(Gowan, 2014, as adapted from Baxter, 2003, p. 28)

Procedures/Instrumental Materials

This study took place during July 2014 in one of the regional hospitals in a rural town in southern Ethiopia. The flow of data collection was guided by each of my six propositions (see Figure 2) that maintained my focus and organization.

As the researcher, I met with the hospital administrator to greet and introduce myself. I thanked him for his time and for permission to conduct the study and clarified any questions he had. I was mindful to demonstrate respect and cultural humility in order to develop a professional working relationship. I asked him to show me the facility documents on pre-service curriculum of the SBAs, in service trainings, and policies to

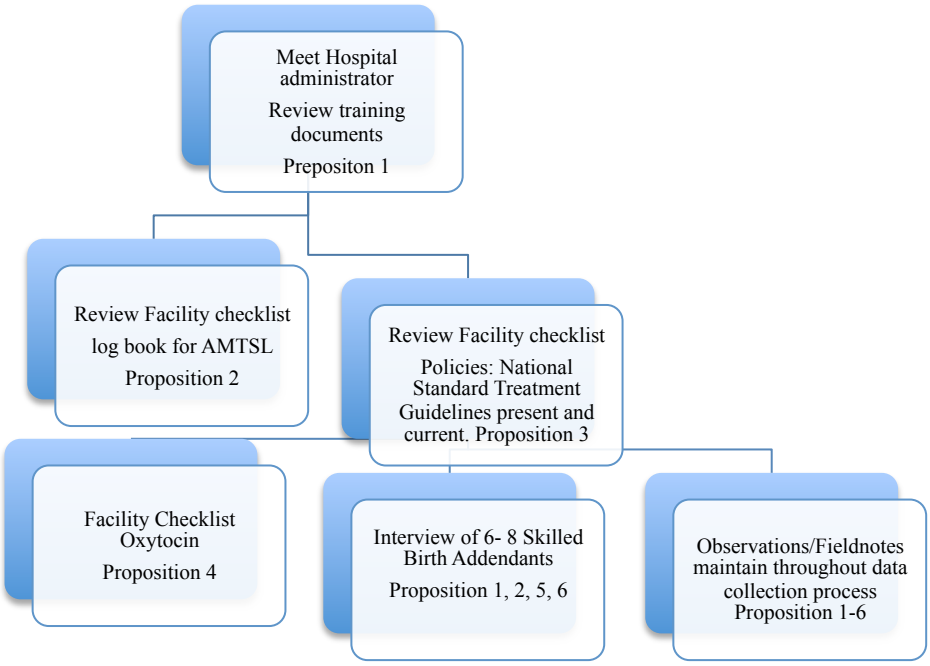
review. I also asked him to show me the medicine and supply inventory as a part of the oxytocin and syringe availability and storage check. Next, I requested access to the labor ward to review the delivery logbook (see Appendix C).

Then I arranged to begin conducting the interviews over the next few days of the six to eight SBAs who met participant criteria and signed the consent form (see Appendix D). A pilot interview with an alternate participant was to be conducted in order to see how long it would take to complete the questionnaire and to clarify wording and directions. Revisions were made accordingly. These findings were not to be part of the final study. The interviews were conducted using open-ended and semi-structured questions. A participant interview guide had been developed as a script of prescribed questions and prompts but allowed flexibility to follow new leads (see Appendix B). The interviews were to be conducted in English or through an interpreter as needed or desired. Both a male and female from outside of the research town, had agreed to accompany me from the capital and serve as interpreters. They were chosen because they could speak the main languages spoken in the area and were familiar with medical terminology. This was also to ensure participant confidentiality by not having the local translator or hospital employee present during the interviews. The interviews were audiotaped and then I planned to personally transcribe the transcripts. I also intended to maintain field notes of the interactions of the participants observed during the interviews.

A field journal was maintained throughout the study of my direct observations in the field setting. According to Yin (2009), researchers observations are a distinctive feature of doing case studies. I made observations of the physical environment and the interactions of the participants using my five senses and professional assessment skills.

What I saw, heard and sensed have been incorporated into my narrative report.

Figure 2. Data collection by proposition



(Adapted from Yin, 2003, p. 100)

Data Analysis

I returned to the six theoretical propositions that were used to design the case study to begin the analysis phase of the research investigation. According to Yin (2011), this is the most preferred strategy of analysis. This focused the analysis on the data for each proposition and helped me to ignore other data outside the scope of the research questions. Although focused on linking the data to the propositions, I remained open to new insights as the analysis unfolded.

There are many techniques researchers use today including computer assisted software programs such as ATLAS.ti mentioned by Creswell (2007). These programs can support the analysis of large amounts of narrative text by following the researchers instructions in coding and categorizing notes and transcripts. However,

unlike with numeric data, there is no automated algorithm when analyzing narrative data. My plan was to utilize computer-assisted software. Due to financial and time constraints I was not able to do so. Regardless, I was able to immerse myself in the details of the data to enhance my understanding of the emerging analysis. I personally reviewed the transcriptions of each interview several times. According to Stake (2010), data can be organized into categories, templates, and other groupings such as developing word tables, flow charts, or a detailed graphic plan.

I analyzed each proposition to code for themes and patterns shared by the participants to gain greater meaning to the study. For example, I expected during the interviews of the SBAs common themes would emerge. This added depth to my understanding of the data and built a profile for each proposition by integrating the personal interviews with site artifacts. Special care was taken during the analysis to preserve the independent thinking of the participants. This was to be done through member checking in which each participant had the opportunity to confirm and clarify their responses in the transcripts.

Triangulation of the multiple data sources was used to strengthen my research findings through validation from the various data sources (Creswell, 2013). I also categorized themes and used descriptive quotes and narratives as supporting evidence for the developing conclusions. To ensure credibility and accuracy of the transcripts, I used member checking and peer debriefing. To help remain aware of my own assumptions and biases a colleague provided an impartial, external check of the data.

As anticipated recommendations for further research emerged during the research process. To my knowledge no qualitative studies have conducted among SBAs in

Ethiopian looking specifically at how they manage the third stage of labor. However, any similar and contrasting research study findings from other countries will be presented.

Role of the Researcher

As a graduate student at George Fox University the completion of this research study is in partial fulfillment of my course work for my doctoral dissertation in educational leadership. I have been a registered nurse for 37 years and a certified nurse-midwife for 21 years. In 1985, I majored in International Health and received a Master of Public Health from Loma Linda University. As faculty member and nurse educator I have taught maternal, newborn nursing and women's health care since 2007 at a small private university in Oregon. I am experienced in working cross-culturally, having lived in east Africa for many years. I am an active member of the American College of Nurse Midwives (ACNM). The ACNM has developed 10 modules for teaching midwives in developing countries how to prevent and manage life-threatening emergencies, including PPH (Marshall & Buffington, 1989). Over the years I have had the privilege of teaching these Obstetric Life-Saving Skills to national health care providers in Djibouti, Somaliland, Ethiopia, and co-taught a course in Tajikistan. Throughout this study I was keenly aware of my personal and professional bias towards the education and training of SBAs, and AMTSL as a Life-Saving Skill. Therefore, to decrease the possibility of compromising every attempt was made to conduct this study with the highest professional standards in the recruitment of the participants, the data collection and analysis, reported findings, and stated conclusions.

Research Ethics

Creswell (2013) points out that ethical issues in qualitative research can occur any time throughout a study from proposal to publication. I was mindful of these issues and planned preventative strategies. I understood my responsibilities as the researcher in this study to the participants. Therefore, I conducted my research on the four principles of Beauchamp and Childress (1983) of autonomy, beneficence, non-maleficence, and justice which after 30 years still form the basis for most bioethical research. The ethical considerations in this study presented a need for extra attention and cultural sensitivity due to its international setting among an ethnically diverse rural population. The respect of culture, religion, and gender differences of participants was observed throughout the study.

All procedures required by the George Fox University Institutional Review Board (IRB) were carefully followed. According to Stake (2000), case study researchers hold a privilege position as guests in the field and need to have "good manners" as well as "a strict code of ethics" (p.447). Therefore, this study went beyond the standard ethical requirements by being extra attentive for signs of concerns. This included obtaining all necessary informed consent and ensuring confidentiality and anonymity measures to protect both the site locations and individual identities of the participants.

The purpose of this study was made clear from the beginning. Participants were made aware that participation was voluntary, of the time commitment involved, and that they had the right to refuse to answer particular questions as well as withdraw from the study at any time. All participants willing signed the informed consent form (see Appendix B). It was explained each participant would be assigned a number rather than using their name in order to protect and maintain anonymity. The numerical ID was used

on all documentation throughout the study. In order to further maintain the anonymity of the participants and site location I referred to the hospital in generic terms i.e. "the hospital" and the town in general terms and not by proper name. Following the University IRB approval, formal access permission to conduct the study was obtained from the hospital administrator as the gatekeeper of the institution. This included permission to talk with the administrator, review documents, and observe the labor ward medication and supply inventory. No copies were made of any documents without specific permission. Informed consent was obtained by each person interviewed.

Informed Consent

The informed consent letters for the hospital administer and each SBA were written in English and translated into Amharic. Translation of the informed consent in another language such as Oromo or Somali, or any other tribal language in the area was available through our interpreter for the participant's thorough understanding. The Informed Consent Template for Qualitative Studies by the World Health Organization Research Ethics Review Committee (WHO ERC, 2014) is especially designed for developing countries and served as a resource guide for the development of this specific study informed consent forms. I drafted the English version of the consent letters and the translator competent in the language, culture and medical terminology translated into them into Amharic by (see Appendix A & B).

The consent included a discussion about the confidentiality and anonymity of the study. It was made clear that participants did not need to fear reprisal for anything they said during the study. They were reassured that participation in the study would not affect their employment status. They understood that their comments would not be

revealed to anyone other than the research team without the numerical ID to hide the identity of the speaker.

To ensure confidentiality I secured the research materials at all times by storing the items in locked locations and keeping computer-based information password-protected. I plan to keep these materials secured for five years following the completion of this study. When the five-year period has expired, I will destroy any research materials that could identify individuals or the facility. In addition to these measures, ethical guidelines the hospital required would be outlined and followed.

Potential Contributions to the Research

Maternal mortality has been and continues to be an unacceptable global crisis. The fact that any woman today would face death while bringing forth life is a violation of human rights and social justice. Studies are clear that the leading causes of maternal death are manageable and preventable (Campbell & Graham 2006; Lalonde, 2013; McCormick et al., 2002). In countries where most women deliver at home, often without a SBA, the practice of AMTSL is not implemented. Even when women do have access to skilled care, they often still do not receive AMTSL. This was found in facilities that had the medications needed for AMTSL and among providers trained in AMTSL. Other observational studies have found common problems with compliance in all three steps (Harvey et al. 2007; Stanton et al. 2009). Evidence regarding adoption of this practice to the ICM/FIGO policy is very limited. Evaluation of projects has been limited to reporting on the number of providers trained and the percent achieving competence. Therefore, it is my hope that through identifying the factors of influence on the management of the third stage of labor by these SBAs it will increase understanding for

future educational curriculum planning to increase their adherence of AMTSL. In addition, my conceptual framework could be a valuable tool for others to use in assessing SBAs in other regions and countries.

Chapter 4

Results

Introduction

This chapter presents the key components of the case study analytical process. It begins with a brief summary on the data collection, the interview logistics, and the characteristics of the participants. A methodical progression continues with content analysis by theoretical research propositions, findings are then linked back to the conceptual framework on the decision-making process by SBAs on the management of the third stage of labor (see Figure 1, p. 40). The conceptual constructs identify each area of influence to be assessed and provide the basis for addressing the research questions.

Fieldwork Data Collection Challenges

According to the plans outlined in chapter 3, the study was conducted at a rural regional hospital in southern Ethiopia in July of 2014. Prearrangements with an interpreter and driver had been made prior to arrival in country. Once in country we contacted the hospital to say we were on our way there and confirmed our appointments to speak with the hospital administrator, tour the facility, review documents, and to begin the interviews. One of the first logistic difficulties was that the study site was more remotely located then understood. The cost of fuel and having to stop half way to stay in a motel both there and back exceeded the study budget. We encountered a second problem when the female interpreter who had agreed to accompany us from the capital and provide translation was not able to do so. She had been chosen because she was female and familiar with medical terminology. The other interpreter was able to provide translation with no noted gender barriers as a male.

Interview Logistics

This interpreter was very vivacious and could speak the main languages in the research area. He was gifted at being able to put the participants at ease during the interviews. The nurse at the hospital that had agreed to assist us with the study logistics served as an alternative participant for a quasi-pilot interview in order to go over the interview questions with the interpreter. The main adjustments were around the translator learning the appropriate medical terminology. We were also able to determine how long it would take to complete the questionnaire and clarify directions. The necessary revisions were made at that time. All interviews were conducted through the interpreter, as the participants did not speak English. Not having a local translator or allowing the hospital employee present during the interviews helped ensure participant confidentiality. The interviews were audiotaped and a university research assistant transcribed the interviews on a computer program that directly corresponded to the audio. This facilitated going back to the audio when needed simply by clicking on the word in question. Field notes of the participants interactions observed during the interviews were also carefully noted.

Interviews were conducted in a private area of the hotel courtyard where the research team was staying. We set up a table and chairs and provided coffee. The set up was comfortable and convenient for the participants and provided more privacy than a room off of the maternity ward in the hospital. The length of time of each interview was between one hour and one and a half hours. The average time of the interviews was one hour and twenty-three minutes. At the start of each interview the informed consent with emphasis on the confidentiality of the study was reviewed together. The participants

were reassured that the interview was not a test, that there were no incorrect answers, and they could chose to not answer certain questions posed to them during the interview. I also shared my commitment to hearing the voice of each participant in order to create an accurate understanding of his or her work as a SBA. Each participant went over his or her responses with the interpreter to verify the accuracy of the transcript. As pointed out by Creswell (2013) member checking is an important validation strategy.

The interviews were conducted with six of the SBAs who met participant criteria and signed the consent form (see Appendix D). The interviews were conducted using open-ended and semi-structured questions. The participant interview guide served as my script of prescribed questions and prompts but allowed me flexibility to follow new leads (see Appendix B).

Participant Characteristics

The following Table 2 shows the various participant characteristics. The age distribution of the participants between 24-28 years was notability younger than expected. The average age was 25.5 years. There were four female participants and two males. The provider qualifications were three midwives, two nurses, and one physician. The number of years working was between one and six years with an average of three years of work experience. It was also noted if the participant had experience working in a rural area.

Table 2. Skilled Birth Attendant Participant Characteristics

	Age	Gender	Degree/Title	Years Working	Rural Experience
1	25	F	Diploma/Midwife	3	Yes
2	27	M	Diploma/Nurse	6 (2 yrs. hospital)	Yes
3	24	F	Diploma/Nurse	4.5 (1 yr. hospital)	Yes
4	25	F	Diploma/Midwife	2	No
5	24	F	Diploma/Midwife	1.3	Yes
6.	28	M	Doctor	2	No

Content Analysis

After returning stateside I carefully reviewed each interview transcript while listening to each interview at least twice and again to clarify words and phrases. The audio recordings also captured the background sounds of donkeys, chickens, the ringing of the bells on the horse drawn buggies, trucks honking, children playing, and the call to prayer from a nearby Mosque. This added to the authenticity and richness of the participant's thoughts and feelings and took me back to the research setting.

To begin the actual content analysis phase of this investigation I returned to the six research propositions which according to Yin (2011) is the preferred strategy of analysis. I began the initial coding process by searching the transcripts for common perspectives and experiences. I highlighted the responses of each question related to the proposition by color-coding like words and phrases. As I continued coding, I recognized patterns and identified themes. In addition to member checking to ensure credibility and accuracy of the transcripts, I also used peer debriefing. Early in the analysis process a colleague was able to provide an impartial, external check of the data, which kept me mindful of my own assumptions and biases.

Next I examined the hospital documents and facility checklist findings as well as my personal observations. I was then able to triangulate the multiple data sources to validate my emergent findings (Creswell, 2013). Pertinent participant quotes served as supportive evidence in developing conclusions.

Results by Proposition

1. A SBA is trained to perform AMTSL.

Two of the six participants clearly stated they were taught AMSTL in school. An additional three said that they were taught the three steps of the third stage of labor. Participant #1 said when recalling her training, "The school taught us the three steps of the third stage with a toy model… through drama." Participant #4 said that, "I learned this in 2012 in midwifery training. They taught the three stages of labor and the three steps of the third stage. If you leave the placenta there will be a problem." The hospital administrator stated no in-service training specifically on AMTSL had been conducted for the SBAs. All six participants reported not receiving any additional training in AMTSL since graduating from school.

2. Despite its international endorsement and efficacy, AMTSL has not been appropriately adopted into practice by most SBAs.

Three of the participants believed they practiced AMTSL and it is the standard of care. Participant #4 candidly shared, "I forgot the name, but now I remember. Yes, I do this every time." Participant #6 spoke for the staff as a whole, "I don't remember a time when we had a PPH from a non-transfer. I think this is because we use AMTSL." They see it as an essential part of care and that it is effective in the prevention of PPH. It was also noted that it has its limits for women that experience other complications associated with PPH as expressed by Participant #1 who said, "I never do it any other way if the mother is normal. I do the three steps. Sometimes with a cervical tear or retained tissue it doesn't work then I call the doctor to get help."

It was noted some SBAs were more likely to practice AMTSL if they believed the woman to be high-risk for PPH. Participant #2 explained,

I usually use active management because the women here are at a high risk of PPH. During first stage I use the partograph and track dilation, looking for danger signs, checking blood pressure, etc.… I take action during the delivery when needed. For third stage I use active management especially when there is risk.

There was only one SBA who demonstrated a more complete knowledge deficit of AMTSL. Participant #3 admitted, "No, I don't know about this but sometimes the placenta is kept inside, so we try to clean it out." This participant did not reference AMTSL as part of practice although said during her training program, "They taught about keeping the mother from bleeding too much."

Table 3 shows provider responses when asked how they manage the third stage of labor. Applying the FIGO/ICM AMTSL definition to the SBAs statements showed that only one of the six participants stated they performed AMTSL according to the criteria. However, looking at the findings by the individual components five of the six participants stated the use of an uterotonic. Four of these five administered oxytocin within one minute of delivery and the other SBA gave it within three minutes, which meets the acceptable relaxed criteria of the timing of the uterotonic to be given. These same providers also stated providing CCT within the recommended time frame. Participant #4 enthusiastically commented on this, "... CCT is so important. If we just pull hard on the cord, the uterus could come out." Participant #5 said while demonstrating with her hands both the traction and support of the uterus, "The baby comes out. I check for a second baby, and then give Pitocin [oxytocin]. The assistant takes the baby, and then I do CCT."

Three participants said they perform fundal massage immediately after the delivery of the placenta. Only one of the six participants mentioned doing follow-up

uterine palpation every 15 minutes for two hours. This was true even using the relaxed criteria of performing palpation twice in 30 minutes.

Table 3. Participant Response - Provider Qualification

Component	Criteria	1. Midwife	2. Nurse	3. Nurse	4. Midwife	5. Nurse	6. Doctor
Use of uterotonic	Oxytocin, Ergometrine Misoprostol	Oxytocin	Oxytocin	_	Oxytocin	Oxytocin	Oxytocin
Dose of uterotonic	Oxytocin 10 IU Ergometrine 0.2 mg. Misoprostol 600 µg	_	1 ML	_	10 IU	_	_
Stage of labor	Immediately after fetal delivery	X	X	_	X	X	X
Timing of uterotonic	Within 1 min of delivery (3 min)	X	X	_	X	X	X
Mode of administration	IM, IV, PO	_	X	_	_	_	_
CCT	After cutting cord 2-3 min after birth or after pulsation	X	X		X	X	X
Fundal massage	Immediately after delivery of placenta	X	X	_	X	_	_
Uterine palpation	Every 15" x 2 hr. (2x in 30")	_	X	_	_	_	

3. AMTSL is endorsed by the Ethiopian Ministry of Health in the National Guidelines for the prevention of postpartum hemorrhage.

The National Standard Treatment Guidelines were not available on the labor and delivery ward nor on the medical/surgical unit. The hospital administrator stored a copy on his desktop computer and upon request provided a copy a few days later. The list of obstetric and gynecological conditions and problems did not include PPH nor was AMTSL in the guidelines.

4. Oxytocin and syringes are regularly available for use in the hospital labor and delivery unit.

Five of the six participants reported that there was enough oxytocin and syringes on the labor ward when they needed it. Participant #1 explained, "…when I worked in the rural area we didn't have oxytocin like here - we just had the women get up to pass urine and then pulled the placenta out. Now I give oxytocin immediately after the baby is born... about one minute." Participant #5 had this to say about the availability, "In the hospital there is no problems, but in the rural areas there was because we had no way to store the Pitocin [oxytocin] because there were no refrigerators."

During the facility review the proper storage condition of the oxytocin was only partially verified. The vials were being stored in a cooler on top of a frozen cold pack. No thermometer was present. No temperature recordings were documented but the vials were cool to touch. Participant #6 expressed concern about the storage of the oxytocin, "The labor ward needs a refrigerator to store the oxytocin."

The Essential Drug List was not on the labor and delivery ward although a tattered copy was found on the medical/surgical ward (oxytocin and ergometrine are listed as OB/GYN meds). Oxytocin is now recommended for routine use in postpartum and post abortion hemorrhage since it is more stable than ergometrine but there is no mention of AMTSL as a means of prevention. The government provides the uterotonic medications through a local government pharmacy. Maternity care is free to all national women in Ethiopia. The hospital administrator stated there are no charges to the women for maternity care including medications. Participant #6 expressed concerns about this, "We don't really have a shortage of oxytocin but the

hospital is having problems because we offer OB/GYN services for free but the government has not reimbursed us." Participant #4 explained, "There used to be a problem with Pitocin, not here, but at the health center. They have issues, but we no longer have issues about pregnant women - because oxytocin is free now from the government." The hospital staff agreed the government has made maternal, newborn health a priority and obtaining oxytocin and syringes are not an issue. The supply of syringes was also noted. On that day there were only five syringes in the supply cupboard. However, the two nurses quickly reassured me an order was coming in that day.

5. The five leading causes of maternal mortality are: postpartum hemorrhage, infection, pregnancy-induce hypertension (PIH), obstructed labor, and unsafe abortion.

The most common obstetric complications seen according to the participants are preeclampsia/eclampsia, sepsis, PPH, unsafe abortion, and uterine rupture. Four of the six participants contributed these complications due to delay in transferring in from the rural areas. Participant #1 reported, "PPH is very common especially in rural areas. The number one problem is placenta retention. Because women wait too long to transfer and then there is always problems with the ambulance." Participant #2 said, "Post abortion hemorrhage and sepsis are the biggest problems here. We treat PPH and preeclampsia every week." Participant #4 shared that, "…sometimes during a seizure the women eat their tongues. PPH happens a lot too but it is controlled in this hospital. The PPH we see is mainly from women transferring into us."

A theme on confidence emerged when each participant was asked how he or she felt when managing an obstetric problem. Four of the SBAs, stated they feel confident when handling such complications, two reported feeling strong, and another two feel experienced. Participant #6 shared "I feel confident. The more experience I have the more confident I feel." Participant #5 echoed this feeling, "I am confident because that's what they trained me to do. At night I am tired and weak but you just think about saving the mother to be strong." Participant #4 reflected that, "Because we have experience and many people come to us for help, we are confident. We learn from our past." Participant #2 likewise stated, "I feel confident and strong. Because I need to manage it, so I need to stay confident." Participant #1 felt otherwise while managing an obstetric complication, "I feel like I can't only do this by myself - I need to call for help." It was noted that even those SBAs that felt confident also stated they felt they sometimes needed to call for help.

When asked if they had ever seen a woman die or almost die from an obstetric complication each of the six participants reported experiencing maternal death. Three of the participants had seen two deaths in the last year and a half, two participants had seen three to four deaths in the last two years and one participant had been involved in five deaths in the last year. Another participant reported seeing six to seven near deaths within the last two years. Their responses paint a vivid word picture. Participant #3 recalls:

Yes, a month ago a woman came in after an unsafe abortion at home…she wasn't bleeding so it was hard to tell what was happening…not even the doctor…she died while trying to tell us what happened. She was 38 and had four children. In the year and a half

I have been here I have seen two women die…from the abortion and a woman came in after a PPH and died.

Participant #4 shares her experience:

Yes. Two mothers I saw died in this last year. The first one came from the [southern] region. She had pre-eclampsia and we didn't get oxygen to her soon enough and she died. She hadn't delivered yet. The other one had medical problems we didn't know and she died in labor.

The comments by Participant #5 are remarkably consistent with the literature on causation. She reflected, "I saw two women die ... the first woman had obstructed labor and the other woman died from anemia, from a severe PPH. Transportation problems and bleeding are why women die." Regarding a specific maternal death of a young woman three months pregnant, Participant #6 candidly shared his feelings of guilt, "I feel like it was my fault she died I should have gotten her history. She would have been treated differently if I had understood her situation." He continued, "I was working in the labor ward for eight months when I first came – during that time there was at least five deaths. Most were complicated cases that we could not help…sepsis and bleeding." Participant #2 also talks about when despite the providers' best efforts the mother may still not make it:

Some women die in the hospital no matter how hard we try. One woman came from the rural area after giving birth and she was bleeding too much… her hematocrit was so low, but the parents didn't understand and wouldn't give blood…she had a uterine rupture that we tried to manage in the operating room… but she died.

The reasons cited for the maternal deaths by the participants were PPH,

sepsis, preeclampsia/eclampsia, obstructed labor, and uterine rupture. The SBAs said they know the process following a maternal death that include logistics and protocol on the pronouncing the death, causation, the birth certificate, and family, governmental and religious considerations. The comments by Participant #1 illustrates some of this process:

Many times, when the mother dies, the family or government will come and blame us for her death. We must try to explain what happened. When a maternal death occurs the doctor is called in and is the one who documents what happened to the woman.

Participant #2 sheds further insight into the process,

We have two kinds of communities here. If the woman who dies is Muslim we do not touch the body. If the woman is Orthodox we are to take and clean the body. Sometimes the baby lives when the mother dies. Then there is a birth and death certificate to be completed.

Participant #4 comments on the death certificate, "… the doctor comes in and writes on the death certificate what happens. It only says when she came in, what happened, and that she died. Nothing else. It's not like a police record." The comments by Participant #5 along the same line said, "… we don't just say the person has died. We check their pulse and respiration then write that they died. We manage the body according to their religion."

Among the hospital documents a morbidity and mortality classification patient report form was reviewed during the facility tour. Several pregnancy, childbirth and puerperium related conditions were noted. The gyn case admission

and discharge logbook recorded these diagnoses and codes. The number of APH, PPH and preeclampsia/eclampsia and sepsis cases recorded in the logbook during the last three months validated the participants' perceptions on the most common obstetrical problems. The number of complications related to abortions both spontaneous and induced resulting in hemorrhage and sepsis also corresponded with the participant's comments on obstetrical complications. The previous three months showed there were 32 incomplete abortions, 11 cases of sepsis, 5 retained placentas and 6 women were treated for severe preeclampsia. One maternal death was recorded due to post abortion PPH with sepsis. This registry did not include complications of women admitted for labor and delivery.

When asked how the SBA and their colleagues deal with maternal death a theme became readily apparent. All of the SBAs expressed their sadness and difficulty when dealing with a maternal death. Participants #6 explains, "It's hard because the women are too young to die." Participant #2 thoughtfully reflected, "We feel bad but try to manage." Participant #4 laments, " The sad thing is we only see the women who come to us… but they come too late. We know there are many women who die that never see anyone [provider]."

Three distinct methods of coping were identified by five of the six SBAs. The three methods were group processing, prevention education, and faith. Participant #5 shared how she incorporates all three of the methods:

I am Orthodox. My religion helps me. I can't explain how but its Ethiopian tradition. At the hospital we call meetings to talk about what happens in a group. What

makes me strong is learning a lesson from a bad outcome and then I take that lesson to the next woman.

Participant #1 pleads with the families, " …to please come to the hospital to prevent this." Participant #6 points out the leadership strategy of the head of the department, "From 5-5:30 PM we discuss problems. The gynecologist tells us our strengths and weaknesses." Participant #3 reiterates the group process, " from 5-5:30 PM, we discuss together any difficulties during the day."

6. Skilled birth attendants often (94%) perform potentially harmful practices increasing the risk of postpartum hemorrhage and other third-stage complications.

Previous studies have identified common harmful practice during the third stage of labor that increase the risk of PPH and other complications. This included fundal pressure and or uterine massage while waiting for the delivery of the placenta, and CCT without uterine support. Besides exploring third stage common potentially harmful practices this study also looked at possible harmful practices in the second stage of labor increasing the risk of PPH and other third stage complications.

When asked if they had learned of other ways of preventing or treating PPH none of the six participants identified any practices considered harmful. One participant pointed out, "I have not. But I know FGM [Female Genital Mutilation] is still a problem practiced in this area – it has its own set of problems." Participant #3 responded with new information, " yes very different…some of the team has been trained in the use of the anti-shock garments ...but not all of us." Participant #2 shared his proactive approach to management, "It's not common but sometimes it is just you and the

mother. I have learned to manage everything during the labor and birth by myself…the episiotomy, placenta and baby."

All six participants stated the proper use of oxytocin and were aware of others in the community that practice giving intramuscular Pitocin injections in labor and the associated deleterious risks of doing it. Participant #2 explains:

Using the partograph has helped me know when to start oxytocin in labor. It should only be used for induction and augmentation. Some people give Pitocin IM but I have never because it can kill the baby. It is very wrong to do. Participant #6 agrees, "A serious problem is women who get Pitocin IM injections in labor out in the rural areas for obstructed labor…then they are sent to us and we have to deal with stillbirths."

Regarding specific practices of second stage the SBAs were first asked if they do anything special to help the mother push?

Participant #1 explained, "When I see the head coming, I might push a little on the stomach to help." Participant #3 also stated, "If it is for a first baby we sometimes do fundal pressure." The other SBAs voiced understanding of the contraindications of doing fundal pressure during second of labor:

Not really if the contractions are normal. I just tell them to drink water and wait. I am new but I never apply fundal pressure in second stage. Sometimes the old mothers move me aside and push me away and do fundal pressure. They don't listen to me when I say they shouldn't do that (Participant #4).

Participant #5 similarly said, " She just needs to push. We encourage the woman and help her breath. We never apply fundal pressure." Participant #2 provides some

history to this practice, “Before we would do fundal pressure during the second stage but now it is no longer allowed. Three years ago it was stopped.” Participant #6 warns that, “Giving fundal pressure is a dangerous practice we have been working to stop. Even the nurses were doing it until we said it must stop.”

Clearly the majority of the participants had been made aware of the increased risk associated with practicing fundal pressure during second stage such as postpartum hemorrhage and maternal and neonatal trauma.

Assessing the Provider-Mother Relationship for Disrespect and Abuse

Each participant was ask to share about their relationship with the women they delivered and how it affects their care. Five of the six participants stated they know the women they deliver. Participant #5 describes her experience:

When I worked in the rural areas I knew all the women I delivered. Even here I know most of them because I grew up here and went to school here. I will be professional whether I know them or not. It’s difficult to work with women I know because if you know them, when you tell them what to do, they won’t accept it. If you don't know them they will respect and listen to you.

Another participant expressed similar thoughts:

Yes, many are close friends. Whether they are friends or not I give them the same treatment. Sometimes when its friends and they are still in labor they beg me to stay and help them. They say, “Don't go! Don't go!” (Participant #4).

Participant #2 explained his relationship with the women:

Sometimes I deliver family members and friends. Because some mothers don't want to go to the hospital so I help them at home. The people that know us will call us to

come help. I usually tell them to come to the hospital. If a woman knows me she will also follow up with me afterwards but not if they don't know me.

Two of the SBAs shared what it is like to not know the women:

I don't know any of the women here because I am not from this town. In the rural areas I knew all the women I helped deliver. If you know the women because you helped deliver her before its good…but it is not good if the woman is your friend. Most women only go to two prenatal visits so not many women bring their records with them for the delivery (Participant #3).

Only about ten percent of women in this area attend antenatal clinics. It is traditionally not important. I only see women throughout their pregnancy or labor when there is a complication. They usually are often sick or with a serious problem when I meet them. But if I can help them deliver safely they are grateful (Participant #6).

The participants were asked to share their management of a woman in labor that was out of control. Two of the participants explained the use of slapping these patients:

We do not give anti pain medications here. Labor is normal and we don't have any. I sometimes have to slap a woman who is out of control (laughing) you must understand this is cultural for many of the women and it's to help them (Participant #1).

Some women from the bush won't allow you to do anything. They come to the hospital in prolonged labor, and then we have to slap them around a little to make them listen. This is to save the baby. If she is uncooperative and acting crazy it will stress the baby. The mother must be brought back into control (Participant #2).

Another two participants shared quite the opposite experience:

Some women have called me names and are mean in labor but I have never been slapped. I try to be nice because the women will not come back to the hospital and will deliver at home (Participant #3).

The women who are out of control will shout at us - be mean to us and they think if we touch them they will be in pain. I just explain if you don't let me help you, you and your baby will suffer. Just give me a chance. I never slap women but sometimes we pinch the women really hard when they are out of control (Participant #4).

Participant #6 tells why he never deals with this, "The female family members usually control women when they are out of control." Participant #5 explains a simple and calm approach:

First we tell her to drink water. We tell her it is not a disease, its labor… to just wait. If they cry for anti-pain we tell them we cannot do anything but keep going. I don't slap them. I have never had a need to do that. Not even in the bush. I never did it.

Assessing Job Satisfaction and Burnout

The question of job satisfaction was explored with participants in order to understand how this may play a role in their patient care and management. When asked if they like their job all six participants readily expressed they do. Participants #1 smiled and stated, "I love my job because the job of a midwife is to help the mom and baby." Likewise participant #2 shared, "Yes, helping the mother and delivering the baby is a good thing. After a woman delivers she hugs me and is so happy." One participant likes the job but doesn't like working the night shift. Participant #4 had this to say:

There are two parts to my answer. First, I do not enjoy the salary. Secondly, the results always make me happy when I help the mother. If you really feel you are helping the people then you enjoy it. I really feel a calling to help people.

Participant #5 passionately explained her response:

Yes I love it! But the work is difficult and the thing that makes you happy is helping the mother deliver and seeing she is so happy otherwise it is just difficult. It is a very heavy responsibility.

Results by Conceptual Constructs

The theoretical conceptual framework on the decision-making process by SBAs on the management of the third stage of labor was developed using the proposition as a foundation. The conceptual constructs identify the area of influence assessed and provided the basis for answering the research study questions.

Research Questions

1. How is management of the third stage of labor practiced by the skilled birth attendants?

Five of the six participants administer an oxytocin within one to three minutes of the delivery. They also perform CCT including uterine support. Half of the participants said they perform fundal massage immediately after the delivery of the placenta. Only one of the six participants said they practice postpartum uterine palpation every 15 minutes for two hours or even twice in 30 minutes. None of the six SBAs said they practice passive or expectant management of the third stage of labor.

2. What issues influence the skilled birth attendant's decision-making process in the management of the third stage of labor?

To answer this question the conceptual framework was used to explore the

dynamics of internal and external factors. For this study the internal factors of influence on the decision making process by SBAs in the management of the third stage of labor were identified as: personal beliefs /attitudes, culture, education/knowledge, relationship to co-workers, administration, the mother and stress/burnout. The external forces include: hospital environment/culture, policies, availability of medication and supplies, salary, and continuing education.

3. What internal factors influence the SBAs' decision-making process in the management of the third stage of labor?

During the in depth interviews of the SBAs the following internal factors of influence were identified.

Personal Beliefs and Attitudes

A positive attitude towards AMSTL and the desire for continuing education was noted by five of six of the participants. Three of the six SBAs believe they do practice it even though what they reported doing does not meet criteria. They believed it to be an essential part of care and that it is effective. It was noted some SBAs were more likely to practice AMSTL if they believed the woman was to be at high risk for PPH. Two participants believed it was not necessary if the placenta came out too fast.

Culture

The participants referenced their personal faith and the faith of others in this area as either Orthodox or Islam. At least one participant said religion in Ethiopia is traditional and is important to how they live, work, and view life and death.

Education and Knowledge

According to the hospital administrator and five of the six SBAs, the local Science College teaches all the students how to actively manage the third stage of labor. However, a copy of the college midwifery curriculum could not be obtained in order to

verify AMSTL as part of a theory course or as a competency-based skill. Two participants said they were taught fear of the mismanagement of the third stage of labor. There has been no in-service training on AMSTL at the hospital although there was a poster on AMSTL hung on the wall in the labor and delivery room. When participants were asked what they were thinking during the third stage of labor half said they were thinking about controlling bleeding, PPH and placental retention. The other half said they were concerned about the mother. Five of six said they practiced AMTSL and it worked well; however, there were comments made that it was given because they believed the woman to be high-risk for PPH. Two participants believed it was not necessary if the placenta came out too fast. Another two participants were able to explain the limits of AMSTL such with a cervical or perineal lacerations and when to call for help.

Relationship to Co-Workers, Administrator, and the Mother

The majority of the staff was notably between the ages of 20-30 with few exceptions. In fact, they had just hired 12 new graduate midwives all in their early twenties. Four of the six participants said they are local and grew up together and know each other well. Three of the participants had given birth themselves at the hospital because they trusted the staff and one was pregnant with her first child and planned to deliver there as well.

There was an established hierarchy among the hospital staff and administration. The head surgeon seemed to be respected for his knowledge and position. During staff Meetings, he was reported to share strengths and weakness of staff members. All of the SBAs stated they could get help from the physician on call when needed even at night.

The SBAs described their relationship to the mother as one of caring and support. Even those who use force to control some patients it was said to be to help the woman and her baby. Five of the six participants said they knew the women they delivered as either family or friends. Half of the providers did not think that seeing a woman prenatally before delivering was important to providing care. It was reported women who want to see the same provider throughout their pregnancy can go to a private clinic. Three SBAs said that knowing the woman made providing her care more difficult. Two said it made it easier. Four of the participants clearly stated they provide the same care to all women. Five of the SBAs described feeling a personal responsibility to the mother and there was no greater professional reward then seeing the mother and newborn safely delivered and happy. All six participants said they loved their job as an SBA because of the opportunity to care for the mothers and babies.

Six internal factors of influence in the SBA-mother relationship can be identified.

1. The mother as center of reference.
2. Relationship is one of caring and support.
3. Community based care - they know these women.
4. Knowledge deficit: prenatal/intrapartum care connection.
5. Professional ethic: providing same care to all women.
6. Mother and newborn safety as source of professional reward and job satisfaction.

Stress and Burnout

There were some specific areas of concern expressed by the SBAs despite the high degree of job satisfaction. A major area of stress identified by the nurses and midwives was their low salary. The work schedule was also considered stressful to all of

the participants. Having to work nights was said to be difficult because there is less staff. One participant said, "I am here all of the time." Another said, "This job is just difficult. It is a very heavy responsibility."

The SBAs reported frequently needing to manage obstetric complications which adds to their already stressful work situation. Four of six participants usually feel confident when managing an obstetric problem while the others do not. All of the SBAs stated a need to sometimes call for help at when managing an obstetrical complication.

In addition, when asked if they had ever seen a maternal death all six of the SBAs said they had. The main reasons identified were post abortion hemorrhage, sepsis and preeclampsia/eclampsia. Each of the SBAs expressed sadness and difficulty dealing with maternal death. Three methods of coping identified were group processing, prevention education, and faith.

4. What external factors influence the SBAs' decision-making process in the management of the third stage of labor?

The interviews of the participants also identified external factors of influence.

Hospital Environment

The physical structure was located on a large compound. The grounds were not landscaped or maintained although trees and flowers were seen growing on the property. The grounds were littered with paper, plastic garbage and old abandoned vehicles. The buildings were in obvious disrepair. The laundry was being done by hand outside and piled high. In the labor ward the beds were also in disrepair and the delivery tables were about three feet long. The SBAs said the women do not like giving birth on them. Although the facility was crowded and lacked cleanliness there was an order about the

ward. The year before last there were 1000 births and last year there was 1300 and this year they expect 1450. This is approximately 325 births per month.

Culture

The participants noted the hospital serves two main religious communities, Muslims and Orthodox Christians. The SBAs show respect for each group for example; when a mother dies and the family is Muslim they know a non-Muslim cannot touch the body. If they are Orthodox, they know how to wash and cleanse the body according to their custom.

Policies

The participants reported maternity care is free to all national women in Ethiopia**.** When asked if they knew of any policies about AMTSL the SBAs said that government and hospital policies supported AMTSL. One participants said even more important was a professional responsibility to do it. Another SBA pointed out AMSTL is a WHO mandate endorsed by the National Ministry of Health. The Facility logbook did not have a column for AMTSL or estimated blood loss. The list of obstetric and gynecological conditions and problems did not include PPH nor was AMTSL in the guidelines.

The National Standard Treatment Guidelines were not available onsite. The date was 2010 and a more current document could not be found. A study (USAID, 2011) on Ethiopian hospitals reported a countrywide update on all policies supporting AMSTL. This information has not been confirmed because a more current Standard Treatment Guideline than 2010 has not been found.

Medication and Supplies

The government provides the uterotonic medications through a local government

pharmacy. The proper storage condition of the oxytocin was only partially verified. There was no refrigerator and no thermometer or documentation of temperatures. The oxytocin was in a cooler on a frozen cold pack. The supply of syringes was minimal but all of the participants reported a sufficient supply.

Salary

The nurses and midwives expressed concern that their salary was extremely poor (about $60/month). The other physician participant confirmed their pay was shamefully inadequate. One participant said that she felt called to help women as a SBA otherwise she would not do it because the salary was just not enough.

Continuing Education

The hospital administrator stated no in-service training specifically on AMTSL had been conducted for the SBAs. All six participants reported not receiving any additional training in AMTSL since graduating from school. There have been two in-service trainings in the past few years on HIV and anti-shock garments. Only three of the SBAs were able to attend these trainings but felt all staff should have the opportunity to be trained as well. The participants expressed a need for training in newborn resuscitation, management of preeclampsia/eclampsia, and hands on skills training on the management of PPH.

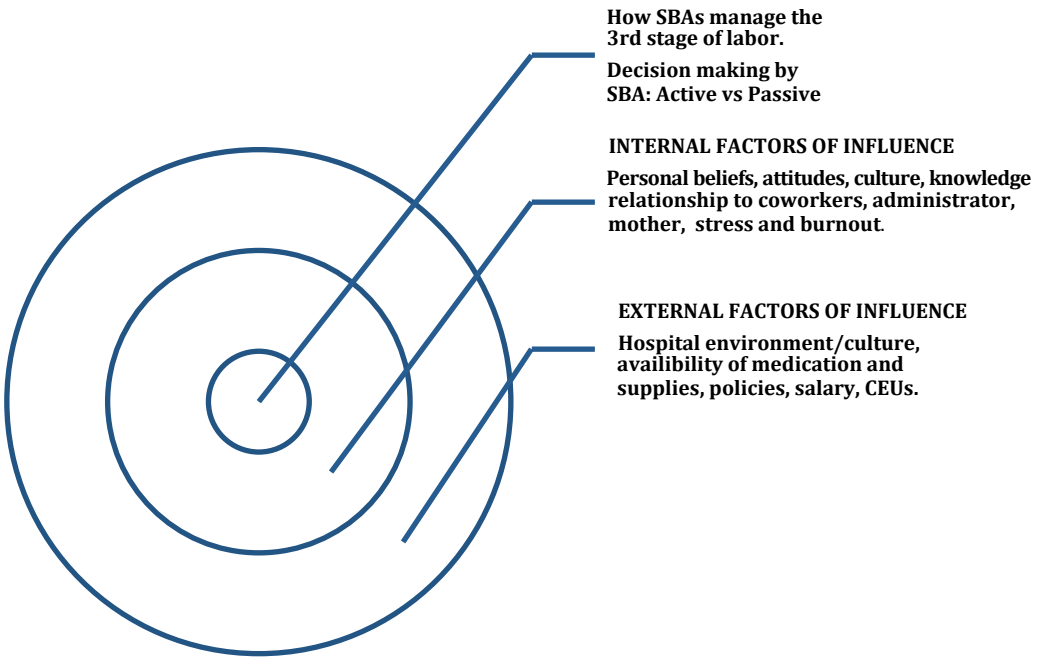
Chapter 5

Discussion, Conclusions, Recommendations, and Implications

Discussion and Conclusions

The results of the content analysis from the research propositions and application of the theoretical conceptual framework found in chapter 4 provide significant insight into the decision-making process by the case study SBAs on the management of the third stage of labor.

Figure 1. Conceptual model: Decision making by skilled birth attendants on management of the third stage of labor.



(Gowan, 2014, as adapted from Baxter, 2003 p. 28)

For example, when participants were asked what they were thinking during the third stage of labor half said they were thinking about: controlling bleeding, PPH, and placental retention. The other half said they were concerned about: the mother.

These thoughts reflect internal factors of influence on their decision-making process during the management of the third stage of labor. The participants believed they practiced AMTSL despite not meeting FIGO/ICM criteria. Additional interview responses indicated they see AMSTL as an essential part of the care they provide. The limitations of AMSTL such as with cervical or perineal lacerations were appropriately identified by two participants.

Since the first FIGO/ICM/ Joint Statement (2003) endorsing AMSTL as the universal standard of care, there have been several revisions on the definition and practice of AMTSL. However, there have never been suggestions for changes in training or implementation of the practice of AMTSL. The latest WHO (2012) recommendations regarding AMTSL reaffirm and refine this lifesaving intervention. The new guidelines serve to highlight the most important AMTSL components and to ensure that every woman is offered it at the time of delivery.

Strictly speaking when applying the FIGO/ICM AMTSL definition to the SBAs statements showed that only one of the six participants stated they performed AMTSL according to the criteria. However, a closer look at the findings by individual components of AMSTL reveal important considerations in light of the new recommendations:

- Five of the six participants stated the use of a uterotonic. This is an important finding as the administration of a uterotonic is now considered the most important component of AMSTL and in the prevention of PPH.

- Four of these five SBAs administer oxytocin 10 IU IM within one minute of delivery and the other SBA within three minutes, which meets the acceptable relaxed criteria of the timing, the correct dosage and route.
- It was also noted that all five of these participants chose to give oxytocin, which is the uterotonic of choice.
- These same providers also stated providing CCT within the recommended time frame, which is still recommended for SBAs but is now considered optional.
- Only three participants said they perform fundal massage immediately after the delivery of the placenta but this is no longer recommended in the new criteria (WHO, 2012).

A review of participant characteristics revealed that the age of the SBAs was only between 24-28 years. This finding was surprising as it was representative of the hospital staff as a whole including the head physician. I did not expect to see such young providers running a busy regional hospital. The average number of years worked was three years. In 2006, Ethiopia joined other African countries in an Implementing Best Practices Initiative including focusing on training SBAs throughout the country on AMTSL (Jhpiego/ACCESS, 2008). A pertinent detail for consideration is that all of the participants graduated between 2008 and 2012 during which the government AMSTL initiative would have been well in progress. Five of the six participants reported their pre-service training included AMTSL in the curriculum. This finding corresponds with the government's timing and efforts to have all SBAs trained to practice AMSTL. Unfortunately, it was not possible to obtain a copy of any of the pre-service training program curriculums from the local science college.

The participants reported that maternity care is free to all national women in Ethiopia**.** When asked if they knew of any policies about AMTSL the SBAs said that government and hospital policies supported AMTSL. The National Standard Treatment Guidelines were not available on the labor and delivery ward or on the medical/ surgical unit. The hospital administrator stored a copy on his desktop computer and upon request provided a copy a few days later. The list of obstetric and gynecological conditions and problems did not include PPH nor was AMTSL in the guidelines. According to Staton et al., (2009), the 2005-2006 Ethiopian Standard Treatment Guidelines included the FIGO/ICM definition of AMTSL. This information could not be confirmed, and seems unlikely given that not even the 2010 Standard Treatment Guidelines included PPH or AMSTL in the table of contents.

The USAID study pointed out in the literature by Getachew et al. (2011) on Ethiopian hospitals reported a countrywide update on all policies supporting AMSTL. This also could not be confirmed as a 2010 edition of the Standard Treatment Guidelines was the only copy. Apparently this is not uncommon as Getachew et al. (2011) also reported that only 21% of the eleven regional hospitals visited had the standard treatment guidelines for normal birth and 16% had the emergency obstetric guidelines. The hospital staff and participants only referred to the General Standard Treatment Guidelines.

Areas of Concern

It was noted some SBAs were more likely to practice AMTSL if they believed the woman to be high-risk for PPH. The recent study among Ghanaian midwives (Schack et al., 2014) found a similar practice of associating risk with the need for AMSTL rather

than providing AMTSL at every delivery. This suggests a lack of understanding that all women are at risk for PPH (McCormick et al., 2002). It also illustrates the need that every woman giving birth should receive AMTSL.

An area of even more concern is that only one of the six participants mentioned doing follow-up uterine palpation every 15 minutes for two hours. This was true even using the relaxed criteria of performing palpation twice in 30 minutes. This finding is of the greatest concern as it may indicate a lack of patient surveillance during the time of greatest risk for maternal mortality (WHO, 2012).

Harmful Practices

The participants were asked to share their management of a woman in labor that was out of control. It was not surprising to hear that some of the SBAs use force by slapping a women in labor, which is considered culturally acceptable among many women and their families. As pointed out in the literature by Boswer and Hill (2010), a growing area of concern in midwifery patient care is professional behaviors. This includes the mistreatment of women on maternity wards, specifically non-consented care and verbal abuse. It was somewhat unexpected to hear that the SBAs themselves are sometimes called names, yelled at by the patients and cruelly treated. It was impressive to learn that two of the participants have never mistreated their patients but use communications skills in dealing with abusive or out of control patients. They said they choose to show respect and professional kindness so that women will come back to the hospital for postpartum complications and their next delivery. Human caring and relationship skills are basic midwifery core competencies that all SBAs need to demonstrate (ICM, 2011). As mentioned by Ramsey (2012) the number one reason for women in Ethiopia to deliver at

home is fear of being mistreated in the hospital setting. Additionally, the ICM Code of Ethics (2008) states midwives are to provide respectful and culturally sensitive care to women and their families. They are also challenged to help eliminate any harmful practice within the culture.

Regarding specific practices of second stage, the SBAs were first asked if they do anything special to help the mother push. Two participants stated they use fundal pressure during second stage especially with first time mothers to help them deliver their babies. The other SBAs voiced understanding of the contraindications of doing fundal pressure during second of labor (Assefa et al., 2005). However, they reported sometimes experiencing opposition by older female family members who argue and push them aside and do fundal pressure themselves. One SBA said during second stage she encourages the woman and helps her breath but never applies fundal pressure. It was reported that fundal pressure was formerly practiced by most all birth attendants but was stopped three years ago. Clearly four of the six participants had been made aware of the increased risk associated with practicing fundal pressure during second stage such as postpartum hemorrhage and maternal and neonatal trauma (Getechew et al., 2011). This is an encouraging finding as second stage fundal pressure has been a long ingrained practice among traditional and skilled birth attendants. The joint statement by WHO/UNICEF/UNFPA (1996) reminds the international community that giving up harmful practices can be done without giving up meaningful aspects of a culture.

Dealing with Complications and Maternal Mortality

When asked if they had ever seen a woman die or almost die from an obstetric complication each of the six participants reported experiencing maternal death. These

young provider responses contrast greatly with western health care providers who may work a lifetime without seeing one maternal death. The main reasons identified were post abortion hemorrhage, sepsis, preeclampsia/eclampsia, and obstructed labor, which support the literature among the leading causes of death (Kinney et al., 2010). The SBAs pointed out several times that the majority of the complications and maternal deaths were from late transfers from the rural areas. These findings were also reported in the review of the literature by Geubbels (2006) and Ramanathan (2009).

Remarkably, four of the six SBAs said they feel strong and confident when managing an obstetric problem. They contributed this confidence to challenging on-the-job clinical experiences since graduating. In addition, each of the SBAs expressed sadness and difficulty dealing with maternal death. Three methods of coping identified were group processing, prevention education, and faith. This was an encouraging finding, as I did not expect to identify such specific ways of coping by the SBAs.

Stress and Burnout

The hospital environment both inside and out lacking ground and equipment maintenance stands in contrast to the care provided by the SBAs. These providers work long hours including nightshifts, get paid very little, deliver babies on broken beds with no running water and often no electricity while being yelled at by frightened and angry patients. They deal daily with difficult obstetrical complications that sometimes end in a neonatal and or maternal death. Sometimes they are blamed for these complications and deaths. The job is an enormous responsibility with few benefits. And yet, all of the participants said they love their job.

This high degree of job satisfaction and the feelings expressed by the SBAs for

the mothers was one of the most intriguing findings in this study and points to the need for specific recommendations and implication for future studies. During the third stage of labor, half of the participants said it was the mother that was on their mind. The SBAs described their relationship to the mother as one of caring and support. This is considered true even for those SBAs who use force to control some patients to help the woman and her baby. Five of the six participants said they know the women they provide care for as either family members or friends. Although three SBAs said that knowing the woman made providing her care more difficult, two said it made it easier. Half of the providers did not think that seeing a woman prenatally before delivering was important to providing care. It was reported women who want to see the same provider throughout their pregnancy can go to a private clinic. Four of the participants clearly stated they provide the same care to all women including how they manage the third stage of labor. The SBAs unanimously described feeling a personal responsibility to the mother and that there was no greater professional reward then seeing the mother safely delivered and holding her newborn.

Recommendations and Implications

As pointed out in the review of the literature how SBAs in rural areas cope with maternal death is very limited. The recent study by Miliira and Buzuidenhout (2014) points out how the well being of practitioners can be negatively affected by occupational exposure to maternal death and result in poor work performance and professional burnout. The implications for practice are significant. This indicates an important need for SBA education programs to include coping with death as an essential part of their

curriculum. Practice settings need to provide emotional support and care for SBAs after a traumatic experience.

According to the hospital administrator and five of the six SBAs, the local science college teaches all students how to actively manage the third stage of labor. The UNFPA (2014) reported there is a national standard midwifery curriculum that was updated in 2010. However, a copy of the college curriculums could not be obtained in order to verify AMSTL as part of a theory course or as a competency-based skill. The study looking at midwifery pre-service curriculum quality by Fullerton et al. (2010) pointed out concerns with midwifery education in Ethiopia. The curriculum is not linked to any expected clinical midwifery practice outcomes creating a gap in the pre-service training and graduate readiness to practice. Pre-service training for SBAs need to cover all basic and emergency obstetric care including AMSTL. Given the noted lack of understanding that all women are at risk for PPH and should receive AMTSL, the SBA educators need to ensure content coverage in risk assessment and the concept of prevention. Emphasis needs to be placed on current WHO recommended changes and on follow-up uterine palpation as one of the most important components but with the poorest percentage rates of adherence (Getachew et al., 2011). AMSTL could easily be integrated into a well-developed competency-based curriculum.

In this study, one SBA demonstrated a more complete knowledge deficit of AMTSL than the others. This participant did not reference AMTSL as part of practice although said she was taught about it during her training program. As pointed out Croft et al. (2013), such a lack of knowledge retention may indicate a need for training and skills review on an annual cycle. The hospital administrator stated no in-service training

specifically on AMTSL had been conducted for the SBAs. All six participants reported not receiving any additional training in AMTSL since graduating from school. Ideally, in-service training should take over where pre-service left off and focus on enhancement and maintenance of the core competency skills. I suggest a program of certification and required recertification would provide a platform for the annual review and a built-in accountability for each SBA.

Ethiopia, like many developing countries, has several different types and copies of treatment guidelines resulting in out of date information and confusion among healthcare facilities and providers. It seems doubtful from the lack of availability of the guidelines or ease of access that the providers are aware of or adhere to any of these national policies. Several copies of the most current Federal Ministry of Health treatment guidelines need to be obtained and disseminated throughout the hospital. Laminated copies secured in the wards where the SBAs work need to be readily available. Forward planning with the ministry of health for regular and consistent up to date copies should be orchestrated. Additional copies could be shared with the local colleges, health centers and pharmacies. I also highly recommend regular scheduled in-service meetings to review and update the staff on ongoing changes.

Studies exploring the relationship of the birth attendant to the mother are limited. The qualitative study in Wales (Hunter, 2006) examined the importance of reciprocity in relationships between midwives and mothers in a community-based setting. More qualitative studies focusing specifically on the SBA-mother relationship in the developing world is needed. If we hope to eliminate gender-based violence in the maternity setting and promote women centered care we must increase our understanding

of the SBA-mother relationship. I agree with Kirkham (2010) who suggests that the midwife-woman relationship needs to be a priority topic included in educational settings with an emphasis on the development of professional communication skills. The SBAs in this study also need to understand the importance of comprehensive maternity care. The SBA-mother relationship should start in the prenatal clinic so that building trust and risk assessment can start early. It is my recommendation that the SBAs have the opportunity to provide care for women throughout their pregnancy and postpartum recovery and not just in the intrapartum setting. There are several comprehensive care models that could be applicable to this setting. Such a model would also increase the number of women coming to the hospital when needed or ensuring a safe home birth in which each case AMTSL would be provided.

This case study of one rural regional hospital in southern Ethiopia has provided insight into the use of AMTSL by these SBAs. It affirms the need for more qualitative research into the factors of influence on the decision-making process of SBAs in their practice settings. We absolutely need to hear the voice of SBAs as frontline service providers of maternal newborn health in low resource settings. The recommendations for practice show a significant responsibility to improve the quality of pre-service and in-service education and training to ensure AMTSL is practiced by every SBA at every birth.

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Appendix A

GEORGE FOX UNIVERISTY

Educational Foundations and Leadership Department

414 N Meridian St, Newberg, OR 97132 USA

Consent to Participate in Research

Study Title: A QUALITATIVE CASE STUDY: THE MANAGEMENT OF THE THIRD STAGE OF LABOR BY SKILLED BIRTH ATTENDANTS IN A REGIONAL RURAL HOSPITAL IN ETHIOPIA

Principal Investigator: Marcella Gowan, CNM, MPH
Name of Organization: George Fox University – School of Education

My name is Marcella Gowan; I am from George Fox University. I am conducting a research study to fulfill the dissertation requirement for my doctoral degree. My professor, Dr. Suzanne Harrison, Ph.D. from the Department of Educational Foundations and Leadership, supervises this project. George Fox University's Institutional Review Board, a committee whose task it is to make sure that research participants are protected from harm has approved this study.

Role of the Researcher: I have been a certified nurse-midwife for over 20 years. In 1985, I received a Master of Public Health from Loma Linda University. As nurse educator I have taught maternal, newborn nursing and women's health for a number of nursing programs. I am experienced in working cross-culturally, having lived in east Africa for many years. I am an active member of the American College of Nurse Midwives (ACNM). The ACNM has developed ten modules for teaching midwives in developing countries how to prevent and manage life-threatening emergencies. Over the years I have had the privilege of teaching these Obstetric Life Saving Skills to national health care providers in several countries.

Invitation of participation: Your hospital has been chosen to participate in this research study through the recommendation of the local volunteer organization, Nagelle Keenya. The hospital would be an ideal setting for conducting this research study and I believe could contribute to important research findings. The study will take place in July/August of 2014.

This is a consent form for research participation. It contains important information about this study and participation expectations.

Involvement in this study is voluntary, so you may choose for the hospital to participate or not. After reading my explanation about the study please feel free to ask any questions that you may still have about the research. I will be willing to explain anything in greater

detail. If you wish to ask questions later, you may contact me at mgowan@georgefox.edu.

Confidentiality: Every attempt to protect the confidentiality of both the site location and individual identities of the participants will be made. Throughout the study the hospital will be referred to in generic terms (i.e. "the hospital") and the town in terms of general information about the region and not by proper name.

Study focus: I am interested in learning more about the ways skilled birth attendants (doctors, midwives and nurses who do deliveries) make decisions about caring for a woman immediately after the birth of the baby. This study is in relationship to the MDG 5 that calls for the reduction of maternal mortality through the prevention of postpartum hemorrhage and the increase in deliveries by skilled birth attendants.

As the hospital administrator and institutional gatekeeper I am asking permission to meet with you to review documents, observe the labor ward and its medication and supply inventory. The last part of the study is to conduct semi-structured interviews with six to eight skilled birth attendants. Participation in these interviews is strictly voluntary and each person will need to sign a personal participant informed consent form.

The interviews will take about an hour and will be conducted in a comfortable place in the hospital, their home or a café. Nothing shared during these interviews will be shared with anybody outside the research team and nothing will be attributed to the participants by name. Participants will be assigned a number to their responses instead of using their names. They should feel free to refuse to answer certain questions and even withdraw from participating without penalty.

The results of this study will only be used for research and dissertation purposes, and may be used for presentations or publication at a professional conference. I affirm to keep any personal information and identities confidential. All research materials (i.e., audio-recordings, transcriptions, and signed consent forms) will be locked in separate, secure locations for a period of no more than three years. I will be the only individual who will have access to these materials. After three years, I will personally destroy all relevant materials and delete the audio-recordings.

Risks: Some participants may feel uncomfortable having an outsider observe their work and sharing their personal thoughts and beliefs. I do not wish for this to happen. Participants do not have to answer any question or take part in any discussion or meeting if they feel uncomfortable in any way.

Benefits: Participants will not be provided any incentive to take part in the research. However, they may be compensated for any time away from work. The benefit of this research is the opportunity to contribute to helping others to understand how the skilled birth attendants at the hospital manage the third stage of labor. This information may reveal important teaching implications for pre-service and in-service education and

training of skilled birth attendants in this region on the prevention of postpartum hemorrhage.

A copy of this informed consent will be provided for your records. Please sign below if you understand and agree to participate.
I have read and understand the description of the study and the invitation for the hospital to participate in this research study. I have asked for and received a satisfactory explanation of anything that I did not fully understand. As the administrative director, I agree to have this study conducted at this hospital.

_____ _____
Signature Date

_____
Print Name Hospital Representative

_____ _____
Signature Date

_____
Print Name of Investigator

Appendix B

INFORMED CONSENT RELEASE

My name is Marcella Gowan, and I am from George Fox University. I am here to conduct a research study to fulfill the dissertation requirement for my doctoral degree. My professor, Dr. Suzanne Harrison, Ph.D. from the Department of Educational Foundations and Leadership, supervises this project. George Fox University's Institutional Review Board has approved this study for the Protection of Human Subjects Research, which is a committee whose task it is to make sure that research participants are protected from harm.

I am inviting you to participate in this research study. Involvement in the study is voluntary, so you may choose to participate or not. After I explain the study to you please feel free to ask any questions that you may still have about the research. I will be willing to explain anything in greater detail. If you wish to ask questions later, you may contact me at mgowan@georgefox.edu.

I am interested in learning more about the ways skilled birth attendants make decisions about caring for a woman immediately after the birth of the baby. It is my understanding that you are a skilled birth attendant currently doing deliveries at the regional hospital. I am asking you as a skilled birth attendant to engage in an hour-long personal interview.

During the interview, we will sit down in a comfortable place at your home, a café or room at the hospital. The information recorded is confidential. Nothing that you share during the interview will be shared with anybody outside the research team, and nothing will be attributed to you by name. You will be assigned a number to your responses instead of giving your name. If you do not wish to answer any of the questions during the interview, you may say so and I will move on to the next question. Refusal to answer a question or withdrawal from participation involves no penalty.

Personal interviews will be audio-recorded and later transcribed. Information will be analyzed and presented anonymously. You will not be identified by name on the tape only by your assigned number. The results of this study will only be used for research and dissertation purposes, and may be used for presentations or publication at a professional conference. I affirm to keep any personal information and identities confidential. All research materials (i.e., digital recordings, transcriptions, artifacts, and signed consent forms) will be locked in separate, secure locations for a period of no more than three years. I will be the only individual who will have access to these materials. After three years, I will personally destroy all relevant materials and delete the audio-recordings.

You will not be provided any incentive to take part in the research. However, you may be compensated for any time away from work. The benefit of this research is that you will be helping others to understand how the skilled birth attendants here at this hospital manage the third stage of labor. This information may reveal important teaching implications for pre-service and in-service education and training of skilled birth attendants in this region on the prevention of postpartum hemorrhage.

A copy of this informed consent will be provided for your records. Please sign below if you understand and agree to participate.

I have read and understand the description of the study and my invitation to participate in a one-hour personal interview. I have asked for and received a satisfactory explanation of any words that I did not fully understand. I agree to participate in this study, and I understand that I may withdraw my consent at any time without penalty.

_____ _____
Signature Date

_____
Print Name of Participant

_____I agree for the interview to be audio-recorded

_____I do not agree for the interview to be audio-recorded

_____ _____
Signature Date

_____
Print Name of Investigator

Appendix C

Facility & Document Review Checklist

Proposition	Document	Yes	No	Comments	
1. A SBA is trained to perform AMTSL.	Does the **pre –service** education for SBAs include AMTSL in the curriculum?				
	Does **in-service** education for SBAs include AMTSL in the curriculum?				
2. Despite its international endorsement and efficacy AMTSL has not been appropriately adopted into practice by most SBAs.	Does the facility delivery logbook have a column for AMTSL?				
	Does the facility delivery logbook have a column for EBL?				
	If yes how many total deliveries were there for the past 3 months? How many times was AMTSL recorded for the past 3 months? How many deliveries has an EBL >than 500ml or indicated PPH. Was AMTSL indicated for any of the pt. with a PPH? If so how many?		Total Deliveries	Total AMTSL	
		April			
		May			
		June			
		Total			
			EBL>500 (PPH)	AMTSL	
		April			
		May			
		June			
		Total			
3. AMTSL is endorsed by the Ethiopian Ministry of	Are the National Standard Treatment	Yes	NO	Date:	

Health in the National Guidelines for the prevention of postpartum hemorrhage.	Guidelines available on site and does it include AMTSL in its contents.			

Proposition	Facility Check	Oxytocin/syringes			ETB/USD
4. Oxytocin and syringes are regularly available for use in the hospital labor and delivery unit? Oxytocin is on the Essential Drug list. Oxytocin becomes unstable if stored at > 30 degrees C for more than 3 months.	What is the cost of oxytocin to the pt.? What is the cost of oxytocin the facility?	Pt. oxytocin			
		Facility oxytocin			
		Pt. syringe cost:			
		Facility syringe cost:			
	Local pharmacy medication list is available? Which uterotonic meds are on it? Can the proper storage conditions of oxytocin be verified?	Yes	No	Comment	
				Temperature: Manufacture. Date	
	What is the procurement practice for uterotonic drugs?				

Appendix D

Interview Guide: Skilled Birth Attendant

Background Information

Language of interview: Oromo Somali Borana Amharic Other:	Interpreter if other than interviewer:
Date of Interview:	Start Time: End Time:
Location of interview	Interviewer comments:

Participant

Respondent Name: (first only)	Respondent Code:
Gender: Male Female	Age:
Shift worked: Day shift Night shift On call Other	Religion: Muslim Orthodox Pente Other
Qualification: Doctor Nurse Midwife Other:	Where educated:
Documentation: License Diploma	Number of years in practice:
Employment status: Fulltime Part time	Distance of provider's home to facility:

Good morning/evening,

It is a pleasure to meet you. I bring greetings from my university professors, colleagues and from my family.

I appreciate that you were willing to do this interview with me today. As a nurse midwife myself I am pleased to meet you as my international colleague. It is my hope that we can learn from each other through this time together. I have been delivering babies for many years and find it helpful to share birth stories with other midwifes (doctors, nurses) about their work in labor and delivery. Tell me the best thing about your work and being a skilled birth attendant.

Questions by propositions

Prop 1. A skilled birth attendant (SBA) is trained to perform active management of the third stage of labor (AMTSL).
1. Tell me about how you manage the third stage of labor?
2. Explain what you think about during this time between the birth of the baby and the delivery of the placenta.

3. Described for me your training in (medical, midwifery, nursing) school about managing the third stage of labor.
Prop 2. Despite its international endorsement and efficacy AMTSL has not been appropriately adopted into practice by most SBAs.
1. Tell me what you know about doing active management of the third stage of labor.

2. If you have practiced this method… how did it work?

3. Tell me about what you think about this method?

4. Tell me about any barriers there are to practicing active management of the third stage of labor?

5. What do you know about any policies on management of the third stage of labor?
3. Facility checklist only
4. Facility checklist only

Prop 5. The five leading causes of maternal morality are; **postpartum hemorrhage**, infection, pregnancy-induced hypertension (PIH), obstructed labor, and unsafe abortion.

1. Tell me about which obstetric emergencies you experience most often while working?

2. How you feel when managing an obstetric complication?

3. Tell me if you have ever seen a woman die or almost die from an obstetric complication?

4. How do you and your colleagues deal with a maternal death? Tell me about the process …hospital protocol, the death certificate, determining the cause of death.
Prop 6. Skilled birth attendants often (94%) perform potentially harmful practices increasing the risk of postpartum hemorrhage and other third stage complications.
1. Tell me about any other methods you use to prevent and treat postpartum hemorrhage that you have learned over time? 2. What ways are do you or others use oxytocin during labor and delivery.

3. Tell me about the 2nd stage of labor do you do anything special to help the mother push? How long do mothers usually push?

4. Tell me about your relationship with the mothers.

THANK YOU VERY MUCH FOR YOUR PARTICIPATION.