# ADDIS ABABA UNIVERSITY

# COLLEGE OF HEALTH SCIENCE
# SCHOOL OF ALLIED HEALTH SCIENCES
# DEPARTEMET OF NURSNG AND MIDWIFERY

KNOWLEDGE AND PRACTICE ASSESSMENT OF ACTIVE MANEGEMENT THIRD STAGE OF LABOR AMONG OBSTETRIC CARE PROVIDERS AT SELECTED GOVERNMENT HOSPITALS IN ADDIS ABABA, ETHIOPIA 2017

BY: ETAGEGN BEZABIH

A RESEARCH THESIS SUBMITTED TO ADDIS ABABA UNIVERSITY COLLEGE OF HEALTH SCIENCES DEPARTMENT OF NURSING AND MIDWIFERYFOR THE PARTIAL FULFILLMENT OF REQUIREMENT FOR THE DEGREE OF MASTER OF SCIENCE IN MATERNITY AND REPRODUCTIVE HEALTH.

June 2017

Addis Ababa, Ethiopia

# ADDIS ABABA UNIVERSITY
# COLLEGE OF HEALTH SCIENCE
# SCHOOL OF ALLIED HEALTH SCIENCES
# DEPARTEMET OF NURSNG AND MIDWIFERY

KNOWLEDGE AND PRACTICE ASSESSMENT OF ACTIVE MANEGEMENT THIRD STAGE OF LABOR AMONG OBSTETRIC CARE PROVIDERS AT SELECTED GOVERNMENT HOSPITALS IN ADDIS ABABA, ETHIOPIA 2017

BY: ETAGEGN BEZABIH (BSC).

Email: etagegnbezabih29@yahoo com.

NAME OF ADVISOR: WORKINESH DABA (BSC, BA, MPH_RH)

CO-ADVISOR: HUSSEN MEKONNEN (RN, MSC, PHD)

June 2017

Addis Ababa, Ethiopia

# Acknowledgment

I would like to forward my thanks to Addis Ababa university College of Health Science, department nursing and midwifery, for giving this chance to attend master's program in Maternity and Reproductive health and Health Bureau for sponsoring me. Secondly, deepest gratitude goes to my advisor Mrs. workinesh Daba and co- advisor Dr. Hussen Mekonnen for their unreserved advising of the development research thesis.

Finally, thanks for data collectors, participants and my friends who gives me an advice directly or indirectly for accomplishment of this final research thesis.

# Abstract

**Back ground:** The third stage of labor is considered to be the most hazardous stage for the birthing woman due to the risk of profuse hemorrhage. Over 90% of women who die of postpartum hemorrhage, the most important cause is uterine atony, there is severe lack of knowledge, skill and practice among attendant at birth needs toward the third stage of labor, as well as access to required supplies and equipment

**Objective:** To assess the Knowledge and Practice of Obstetric Care Providers on active management third stage of labor at selected government hospitals in Addis Ababa, Ethiopia 2017.

**Methods:** Institution based cross sectional study design was conducted from March to April 2017 among Obstetric Care Providers at selected government hospital in Addis Ababa, Convenience sampling method were carried out. The questionnaires have closed ended questions and which covers socio demographic information, knowledge, and practice of obstetric care providers on active management of third stage of labor. It was in English language and completeness checked, coded and entered into Epi-Data version 3.1 and analyzed using SPSS version 22. Confidence interval 95% and P-Value 50%

**Result**: From the total of 136 participants the response rate was 135(99.3%). 90(66.7%) had overall good knowledge. qualification of the respondents was significantly associated to knowledge; interns are 5.5 times more likely knowledgeable than residents. were as Sex is significantly associated with practice. Females are 2.56 times more likely associated than males

**Conclusion:** Results from this study showed poor Knowledge and practice of obstetric care providers towards AMTSOL. Almost half of the respondents had poor knowledge and more than half are with poor practice. Therefore, extensive training and supervision should be provided to all obstetric care providers especially those who have done at labor and delivery unit to public hospital



**Key words:** Active Management Third Stage of Labor, Knowledge, Practice, Obstetric Care Providers.

# Table of Contents

# List of tables

# List of Figures

# List of Abbreviations

| | |
|---|---|
| AAU | Addis Ababa University |
| AOR | Adjusted Odds Ratio |
| AMTSL | Active management of third stage of labor |
| BLH | Black Lion Hospital |
| CCT | Control cord traction |
| EDHS | Ethiopian Demographic and Health Survey |
| FMOH | Federal Ministry of Health |
| FIGO | International Federation of Obstetrician and Gynecologist |
| GMH | Gandy Memorial Hospital |
| ICM | International Conference of Midwives |
| MCH | Maternal and Child Health |
| MDG5 | Millennium Development Goal list at serial number 5(five) |
| MM | Maternal Mortality |
| MMR | Maternal Mortality Ratio |
| MOH | Ministry of Health |
| PPH | Postpartum hemorrhage |
| SD | Standard Deviation |
| SPSS | Statistical Package for Social Science |
| SSA | Sub Saharan Africa |
| Yek -12 | Yekatit-12 Memorial Hospital |
| ZMH | Zewdetu Memorial Hospital |

`

# 1. Introduction

## 1.1. Back ground

Third stage of labor is the stage or period from the expulsion of fetus to the expulsion of the placenta and membranes. It lasts from 5 to 15 minutes; even until 1-hour duration is a normal range. This is the most hazardous stage or normal physiologic process with some risk for the woman, who is giving birth due to the fear of profuse Post-partum hemorrhage (PPH) (1). PPH is a major Couse of maternal mortality and morbidity, particularly in developing countries where most pregnancy-related deaths are associated with hemorrhage (2). The leading cause of PPH is Uterine atony, or failed to contract uterine muscles normally following birth and the majority of cases prevented by using an evidence-based clinical practice or active management third stage of labor (AMTSL). This intervention globally recognized, and widely promoted for more than a decade as part of programs to reduce maternal mortality Overall, so the risk of PPH was more than 60% lower with active management than with expectant management(3).

Active management third stage of labor (AMTSOL) is the first, simple; practicable, feasible and cheap interventions or management packages in the third stage of labor. It is designed to increase the speed of placental expulsion through adding the strength and frequency of uterine contractions for avoidance of uterine atony, prevents primary PPH and saves the life of millions women (4). Every birth attendant should have the knowledge, abilities, and critical judgment to perform it, additionally should have an access for the necessary supplies and equipment's (2). In active management, several type of prophylactic interventions are applied and Combined, WHOs, recommended that administering "uterotonic" drug such as oxytocin soon after birth to contract uterus, Control the delivery of the placenta through careful traction on the umbilical cord while providing external counter traction to the uterus and massage the uterus externally during and after delivery of the placenta. The second intervention of third stage labor is called expectant management; it holds the lists of interventions in active management included unless it is needed (5).

Through observation of seven countries how to use uterotonic drugs in the third or fourth stages of labor was almost common. Only 0.5% to 32% of deliveries were correctly practiced active management third stage of labor, due to many shortage of practice. Even

though, all other countries except Indonesia, their policies were a contradiction about active management (6).

In Ethiopia maternal deaths account for 21.6 percent of all deaths among women aged 15-49. This shows that women of reproductive age face a very high risk of maternal death in the population, regardless of the level (7).

## 1.2. Statement of the problem

In 2015, an estimated 303,000 women died as a result of pregnancy and childbirth-related complication worldwide. Developing countries accounted for about 99% of global maternal deaths, with the maternal mortality ratio (MMR) of 239 per 100,000 live births, 14 times higher compared to the developed regions (17 maternal deaths per 100,000 live births) (8). Despite an apparent global improvement made over the last two and half decades, the worldwide MM dropped by about 45% in 2015 which is far from the decline targeted (75%) to be achieved by 2015(8, 15, 16).

Worldwide about half a million women die due to complications of pregnancy and child birth, childbirth irresistible proportions of death occur in developing countries of the world since facilities are poorly developed, no appropriate care during labor, delivery or in the postpartum period .and due to lack of trained birth attendants. Majority of deaths occur within few hours of delivery or due to postpartum hemorrhage (9, 10). It constituted 10–60% of all maternal deaths, so it made leading cause of maternal death in worldwide. Globally, at least 585,000 women die each year by complications of pregnancy and child birth. The majority of maternal deaths (61%) occur in the postpartum period, and more than half of these take place on the first day of delivery (8).

Sub-Saharan Africa (SSA) alone accounted for 66% of maternal deaths with the MMR of 546 per 100,000 live births. In Ethiopia, maternal mortality ratio is estimated at 353/100,000 live births according to2015 report of WHO, indicating a significant improvement from that reported in 2005 EDHS. However, this figure is far from the millennium development goal (MDG) target of 267maternal deaths per 100,000 live births by 2015 (8).

From annually estimated 1.4 million deliveries, which do not get the correct active management of the third stage of labor. It represents 1.4 million lost opportunities of preventable post-partum hemorrhage, which is the leading cause of maternal death
However, many health services worldwide fail to routinely deliver AMTSL, a gap that represents a major quality problem in maternal health care. (11). According to the study done in the Hinchinbrook 12 randomized control trials delivered evidence that AMTSL knowingly

reduces postpartum hemorrhage, decreases blood loss, and also it reduces blood transfusion requirements (12).

All pregnant women who were attending their delivery at Vanga Health maternity wards it represents 71% of the institutional delivery rate, the number of deliveries realized with the practice of active management of labor making an incidence of 5.77%, which means there was a decline of 70% compared with the previous two years. The extension of active management of labor practice, combined with the assurance of better supplies of oxytocin to enhance drug management, is strongly advised/suggested (13).

In Albania study showed that majority (92.2 %) of the obstetric care providers did not assess the completeness of the placenta and membrane which is exposed to unnecessary manual uterine exploration (14).

In Hawassa city only 33.3% had knowledge and 15.7% were skilled of AMTSOL (17).

In Addis Ababa at selected health centers 51% had knowledge of standard questions and 47% had practiced AMTSOL (18).

This study will measure the extent of the problem brought by AMTSL knowledge and practice of obstetric care providers, to identify some of the reason for their malpractice which might help in the prevention, control and policy formulation for government of Ethiopia on the malpractice of obstetric care providers on active management of third stage of labor.

## 1.3. Significance of the study

Even though post-partum hemorrhage is the global leading cause of maternal mortality, skilled birth attendants can be prevented PPH by using an intervention of active management third stage of labor since it is simple, applicable and cheap.

This study can help program managers, city health department and stakeholders to design appropriate intervention to improve obstetric care providers' knowledge and skill.

This study can also show the professions which really involved in AMTSL services. Moreover, the findings could also be used to serve as a base line for conducting further research on the problem in our country.

# 2. Literature Review

Active management the third stage of labor (AMTSOL) is first and most useful type of interventions or management packages in the third stage of labor, which is designed to increase the speed of placental expulsion by adding the strength and frequency of uterine contractions and prevents PPH by avoiding uterine atony. (4)

## 2.1. Knowledge of Obstetric Care Providers on AMTSL

Facility based crosses sectional study conducted in Southwest Nigeria among 361 health professional working in labor ward to assess their knowledge on active management third stage of labor showed that, Majority (90.6%) of the respondents reported being aware of AMTSL as an obstetric intervention and 49.7% were aware of FIGO/ICM recommendation on AMTSL. Out of 13 potentials third stage interventions, 102 respondents (28.3%) correctly and exclusively identified the components of AMTSL as defined by FIGO/ICM. Many procedures reserved for treatment of complicated third stage of labor such as manual placental removal (37.7%), blood transfusion (20.2%), bimanual uterine compression (24.7%) and uterine artery ligation (13.9%) were also selected as AMTSL components (19).

The study conducted on Postpartum hemorrhage in a teaching hospital in Nigeria: by unskilled attendants that have no knowledge of active management of the third stage of labor were complicated with postpartum hemorrhage, in order to reduce the morbidity and mortality from postpartum hemorrhage qualitative study with midwives in Accra Ghana on experiencing challenges when implementing Active Management of Third Stage of Labor (AMTSL) shows that uterine massage, was not implemented, even though the general attitude towards AMTSL was positive (13)

Knowledge of active management of third stage of labor was also assessed in Tanzania by health facility based survey among health providers showed that only 9% made correct statements regarding all three components as in the definition of AMTSL These included uterotonic drug administered within 1 minute following the delivery of the fetus, CCT and uterine massage. Of all responses, 36% and 46% of providers mentioned one and two

components, respectively. In general, 91% of providers made no correct statements regarding the definition of AMTSL (20).

Furthermore, study conducted in Hawasa city also reported that only 33.3 % out of 51 had knowledge and 15.7% were skilled on active management of third stage of labors (17).

Another cross-sectional Study conducted in Addis Ababa at selected health centers showed that Almost all 135(99.3%) of the respondents were aware of AMTSL. On the other hand, they were check about standard observation guide and standard questions on active management third stage of labor, only 51.5% of midwives achieved acceptable standard scores for the knowledge questions. (18).

## 2.2. Practice of Obstetric Care Providers on AMTSL

A project was conducted in rural Tamil Nadu to promote the practice of active management of third stage of labor. Interviews were held with providers delivering pregnancy-related services to women in the project are a self-administered questionnaire focusing on current practice. A total of 15 TBAs were identified and interviewed to under relaxation of the uterus after contraction. Majority 98.0 % (n=50) of the obstetric care providers did not inform or training the mother how to massage the uterus every fifteen minutes for two hours to reduce uterine relaxation after delivery (21).

The study conducted in Zambia to assess the practice of active management of third stage of labor, Midwives employed in five public hospitals were conducted during the second through fourth stages of labor. However active management was conducted in strict accord with the currently recommended protocol in only 25 (40.4%) of births. Most common deviations for the remaining 85% were, giving uterotonic drugs after placental delivery (65%) and without cord traction (49%) (22).

An intervention study with post-test-only design was conducted among health maternity wards using a data collection sheet to obtain information regarding the practice of active management of labor. All pregnant women attending Vanga Health maternity wards constituted the study population. From April 2007 to March 2008, 6339 deliveries took place at Vanga Health maternity wards, representing 71% of the institutional delivery rate. The number of deliveries realized with the practice of active management of labor were 5562; 366 cases of PPH were reported, making an incidence of 5.77%, which means there was a decline of 70% compared with the previous two years. The extension of active management of labor practice, combined with the assurance of better supplies of oxytocin to enhance drug management, is strongly advised/suggested (13).

A descriptive study was done to assess the normal labor practices in an Egyptian teaching hospital, where postpartum hemorrhage is the leading cause of maternal mortality. 176 normal births were directly observed. Women were interviewed postpartum and study findings were shared with providers (9). Third-stage active management was correctly done for 15% of women observed a descriptive study were done to assess the practice of active management of third stage of labor and barriers to its effective use in Tanzania. A national representative sample of 251 facility based vaginal deliveries was observed for active management of third stage of labor. 71% of the observed deliveries were conducted by midwives and 11% by staff nurses. Correct practice of active management of third stage of labor was observed in 7% of the deliveries. The study also observed harmful practices in 1/3 of the deliveries. So It is concluded that the knowledge and practice of active management of third stage of labor is very low and strategies are not updated on correct active management of third stage of labor (20).

An observational study was conducted to document the use of active management of the third stage of labor for preventing postpartum hemorrhage and to explore factors associated with such use in seven developing countries - Benin, El Salvador, Ethiopia, Honduras, Indonesia, Nicaragua and the United Republic of Tanzania First, a sample of health facilities with one to three deliveries per day was chosen. The study findings showed that correct use of active management of the third stage of labor was found in only 0.5% to 32% of observed deliveries

due to multiple deficiencies in practice. Developing countries have not targeted decreasing postpartum hemorrhage as an achievable goal; there is little use of active management of the third stage of labor (6).

In Albania Hospital study shows dose and rout of oxytocic drug utilization, majority 94.1 % of the obstetric care providers used 10 IU oxytocin IM (intramuscular). Besides, 52.9% of the obstetric care providers did not wait the contraction of the uterus after administration of the uterotonic drugs to apply CCT and also 15.7% of the participant waited for gush of blood to apply CCT. In addition to that 96.1% of the obstetric care providers rid of placenta after administration of the uterotonic drugs and 76.5% were observed while applying control cord traction during third stage management. Only 64.7% obstetric care providers were supporting the placenta with both hands to deliver the membrane completely. More than half, 52.9% of the participants were extracting the membrane gently with lateral movements to deliver the placenta. 52.9% of the obstetric care providers did not perform uterine massage immediately following the delivery of the placenta. Majority 92.2 % of the obstetric care providers did not assess the completeness of the placenta and membrane which is very crucial to check whether or not the placenta is complete and to avoid unnecessary manual uterine exploration. Because of the relaxing nature of the uterus a care provider must massage every fifteen minute for two hours. However, 88.2% of the obstetric care providers did not ensure the randomly selected. Loading of the oxytocin was correctly done immediately when the women were seen to bear down at second stage in 99.5% of the cases. In 5.8% of cases, the oxytocin doses were different from the standard 10 units. The possibility of second baby was not ruled out in 81.9% of the cases before the administration of 10 units of IM oxytocin. More over the study revealed that controlled cord traction was applied in 56% of the cases without confirming uterine contractions. The study concluded that improvement in the standard of active management of third stage of labor is still needed in the training providing institutions (14).

Study conducted in Hawasa city reported that more than half, 64.7% of the obstetric care providers were observed during active management third stage, when they palpate the abdomen to rule out the presence of another baby before administering oxytocic drugs. As

observed about the time of oxytocic drug administration during third stage management, only 31.4 % of the obstetric care providers gave the uterotonic drugs within one minute

Regarding to types, dose and rout of oxytocic drug utilization, majority 94.1 % of the obstetric care providers used 10 IU oxytocin IM (intramuscular). Besides, 52.9% of the obstetric care providers did not wait the contraction of the uterus after administration of the uterotonic drugs to apply CCT and also 15.7% of the participant waited for gush of blood to apply CCT. In addition to that 96.1% of the obstetric care providers rid of placenta after administration of the uterotonic drugs and 76.5% were observed while applying control cord traction during third stage management. Only 64.7% obstetric care providers were supporting the placenta with both hands to deliver the membrane completely. More than half, 52.9% of the participants were extracting the membrane gently with lateral movements to deliver the placenta. 52.9% of the obstetric care providers did not perform uterine massage immediately following the delivery of the placenta. Majority 92.2 % of the obstetric care providers did not assess the completeness of the placenta and membrane which is very crucial to check whether or not the placenta is complete and to avoid unnecessary manual uterine exploration. Because of the relaxing nature of the uterus a care provider must massage every fifteen minute for two hours. However, 88.2% of the obstetric care providers did not ensure the randomly selected. Loading of the oxytocin was correctly done immediately when the women were seen to bear down at second stage in 99.5% of the cases. In 5.8% of cases, the oxytocin doses were different from the standard 10 units. The possibility of second baby was not ruled out in 81.9% of the cases before the administration of 10 units of IM oxytocin. More over the study revealed that controlled cord traction was applied in 56% of the cases without confirming uterine contractions (17).

From136 midwives who worked in Addis Ababa health center those who were include in the study. Practical aspects regard active management third stage of labor, 77.9% are injected oxytocin with in the first minute, controlled cord traction also done for 89% and 86% with in the first minute after delivery uterine massage performed. When considering that standard observation guide on active management third stage of labor, only 47% had achieved good in skills. (18)

## 2.3. Factors affecting AMTSL practice

### 2.3.1. Sociodemographic factors

The study was conducted in three municipal hospitals (called Amana, Mwananyamala and Temeke). These are the only officially recognized municipal hospitals of Dar es Salaam Region in Tanzania Having some good number of young adult midwives is a big strength to these hospitals as young people are believed to have more energy to work than old adults. But the problem of having majority with very low level of midwifery education provokes questions of whether absence or presence of poor hospitals continuing educational programs and other personal and non-personal associated factors that hinder these midwives to continue with higher levels of midwifery/nursing education. These requests for future survey of assessing the existence and quality of continuing educational programs in these hospitals. The American Association of Colleges of Nursing (AACN), the national voice for baccalaureate and graduate nursing programs, believes that education has a significant impact on the knowledge and competencies of the nurse clinician, as it does for all health care providers and added that Nurses with Bachelor of Science in Nursing (BSN) degrees are well-prepared to meet the demands placed on today's nurse as BSN nurses are prized for their skills in critical thinking, leadership, case management, and health promotion, and for their ability to practice across a variety of inpatient and outpatient settings (AACN, 2010). This explains that, level of education in one way or another may hinder someone’s logical thinking, owns actions and decision making capacity although in this study level of education couldn’t give enough evidence on its association with competence level on AMTSL (12).

### 2.3.2. Other factors

There was a diversity of motivation strategies reported to improve workforce motivation in improving obstetric care provider's services in Tanzania. Conducted a study to assess staffing needs for quality perinatal care in Tanzania revealed that, the most reported incentives included paying overtime, timely promotion, salary increments, in-service training, seminars, workshop and provision of mid-morning tea for staff. In a survey conducted in Kilimanjaro region to assess health worker perspective in improving motivation among primary health care workers in Tanzania found that although financial incentives are important (20).

The research conducted in seven developing countries Ethiopia, Benin, united republic of Tanzania, Indonesia, El Salvador, Honduras and Nicaragua shows most of the deliveries observed by the researchers were by women aged 20–34 (61–85%). In Benin, Tanzania and Indonesia midwives performed the largest proportions of deliveries (94%, 71% and 45%, respectively), whereas physicians were generally in attendance in the Central American countries (58–73%). In Ethiopia, nurses performed most deliveries (61%) For instance, although facilities in Benin were more likely to provide training in management of the third stage of labor to doctors and nurses than to midwives, the latter performed 94% of deliveries. Overall, active management of the third Stage of labor, as defined by FIGO and ICM, was correctly carried out in only a small minority of deliveries: 32% of those in Indonesia, 18% of those in Benin and 1–5% of those in the remaining five countries i.e. 4.5 Ethiopia. These data suggest that nurses were more likely than other cadres to use AMTSL; 13% of deliveries by nurses had AMTSL versus 4% by obstetricians, general practitioners, and residents. Likewise, the data also suggest that deliveries in facilities that provided AMTSL in-service training for nurses were more likely to have received AMTSL than deliveries in facilities without such training (6).

Cross sectional study done in Hawassa city revealed that, Pre/in-service training is one of the influencing factors for the knowledge and practice of obstetric care providers on active management of third stage of labors. Obstetric care providers who had pre/in-service training were more skill full than non-trained obstetric care providers i.e. obstetric care providers who

receive pre/in-service training are seven times skill full than those who did not receive training and majority 96.1 % of the obstetric care providers were midwives the remaining 3.9 % were health officers. Physicians and clinical nurses were not observed during active management of third stage of labor. This might be due to Physicians tend to manage more complicated third stages and increment of midwife's number clinical nurses divert to other services (17).

## 2.3. Conceptual frame work

Active third stage management by obstetric care providers is influenced by so many factors like in-service training, qualification, utilization of oxytocic drugs, and socio demographic factors (e.g. sex age...). The factors which are speculated as the influencing factors of the third stage management are schematically represented as the following conceptual frame work (23).

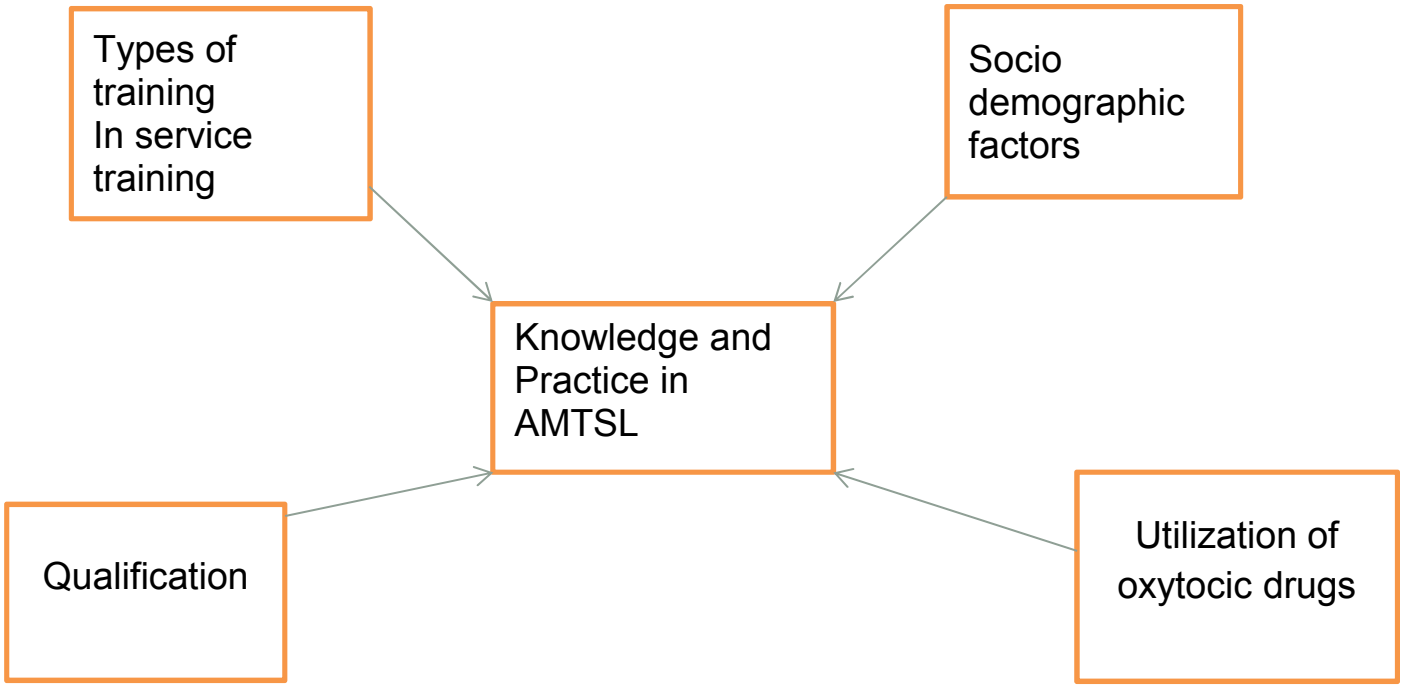


Figure 1 A conceptual framework for factors affecting of routine use of active management of third stage of labor of labor.

# 3. Objectives

## 3.1. General objective

- To assess knowledge and Practice of obstetric care providers on active management of third stage of labor in Addis Ababa on selected government Hospitals, Ethiopia, 2016/17.

## 3.2. Specific objective

- To determine obstetric care providers level of knowledge on active management of third stage of labor
- To investigate obstetric care providers' actual practices carried out on active management of third stage of labor.
- To identify factors associated with knowledge and Practice of obstetric care providers towards the use of active management of third stage of labor.

# 4. Methods

## 4.1. Study Area

Addis Ababa is the capital city of Ethiopia and the seat for the African Union. Addis Ababa has a population size of over 3 million (3,384,569) with annual growth rate of 3.8 %( data obtained from central statistical agency of Ethiopia or population census from 2007). The City has classified in two administrative layers such as the sub-city top layers, followed by Woreda, based on current classification Addis Ababa has ten sub cities and 116 Woreda. The city has 13 publics and 35 Private Hospitals, from publics 6 hospitals are under Addis Ababa Regional Health Bureau and 5 are specialized referral (central) Hospitals which is under Federal Ministry of Health. Two are defense forces (military) referral hospitals and one hospital under army force. Furthermore, the city has 98 health centers ruled by the Addis Ababa health bureau and more than 760 Clinics**.**

The potential health coverage is about 100%. Antenatal coverage estimated to be 82.11%, institutional delivery 39.89%, postnatal coverage 19.47%, and family planning 23.27% and total fertility rate is about 1.5%. Total numbers of obstetric care providers in Addis Ababa are about 182 in the six (6) selected governmental hospitals (18).

## 4.2. Study design and period

Facility based cross sectional study was designed from March- April, 2017.

## 4.3 Source population

-All obstetric care providers who works in Addis Ababa public Hospitals.

## 4.4 Study population

-All obstetric care providers in Addis Ababa public Hospitals who were available during the study period.

## 4.5 Inclusion and Exclusion criteria

### 4.5.1 Inclusion criteria

-All obstetric care providers who were available and willing at the time of data collection were included in the study.

### 4.5.2 Exclusion criteria

**-**Those who refused to participate and seriously ill.

## 4.6. Sample size determination

By using 51.5 % as prevalence of knowledge of active management third stage of labor in Ethiopia **(18).**

The required sample size was determined by using single population proportion formula by considering the following assumptions:

$$n = \frac{(z\ \alpha/2)2 * P\ (1-P).}{d2}$$

**Where:**

n =sample size required for the study

p =prevalence of AMTSL practice in Ethiopia

Zα/2=Z value at (α =0.05%) = 1.96 corresponding to 95% confidence level

d = the margin of error = 0.05

$$n = \frac{(1.96)^2 \text{ x}0.515\ (1.0\text{-}0.515)}{(0.05)^2} = 384$$

Since the population is less than 10,000 the study considers correction formula

n = no/ (1+ (no/N)) =384/1+384/182= 124

Where no = initial sample size

n = adjusted sample size

N = total population

For possible none response during the study the final sample size is increased by 10% to:

n = 124+10% of 124

Where no = initial sample size n = adjusted sample size

N = total population

For possible none response during the study the final sample size is increased by 10% to:
n = 124+10% of 124 which is 124+12.4 = 136.4=136

## 4.7. Sampling procedure and sampling techniques

There are 11 public Hospitals in Addis Ababa city from these six (6) of them are selected by lottery methods. Two (2) of them are under Federal ministry of health, which are St. Paoulose and Alert hospitals, there are a total of 26 and 22 obstetric care providers (seniors, GP, R1, R2, R3, R4, interns and midwives) in St.Paulos and Alert hospital respectively. Three (3) of the selected hospitals are under Health Bureau: which are Zewdetu Memorial Hospital with a total of 30 obstetric care providers, Gandhi Memorial Hospital with a total of 39 obstetric care providers and Yekatit-12 Hospital with a total of 33 obstetric care providers. The other selected hospital is Black Lion specialized hospital which is under AAU and a total of 32 obstetric care providers are available here. The total number of obstetric care providers available at the six selected hospitals is 182 and by convenience method the required sample size is 136 is selected.

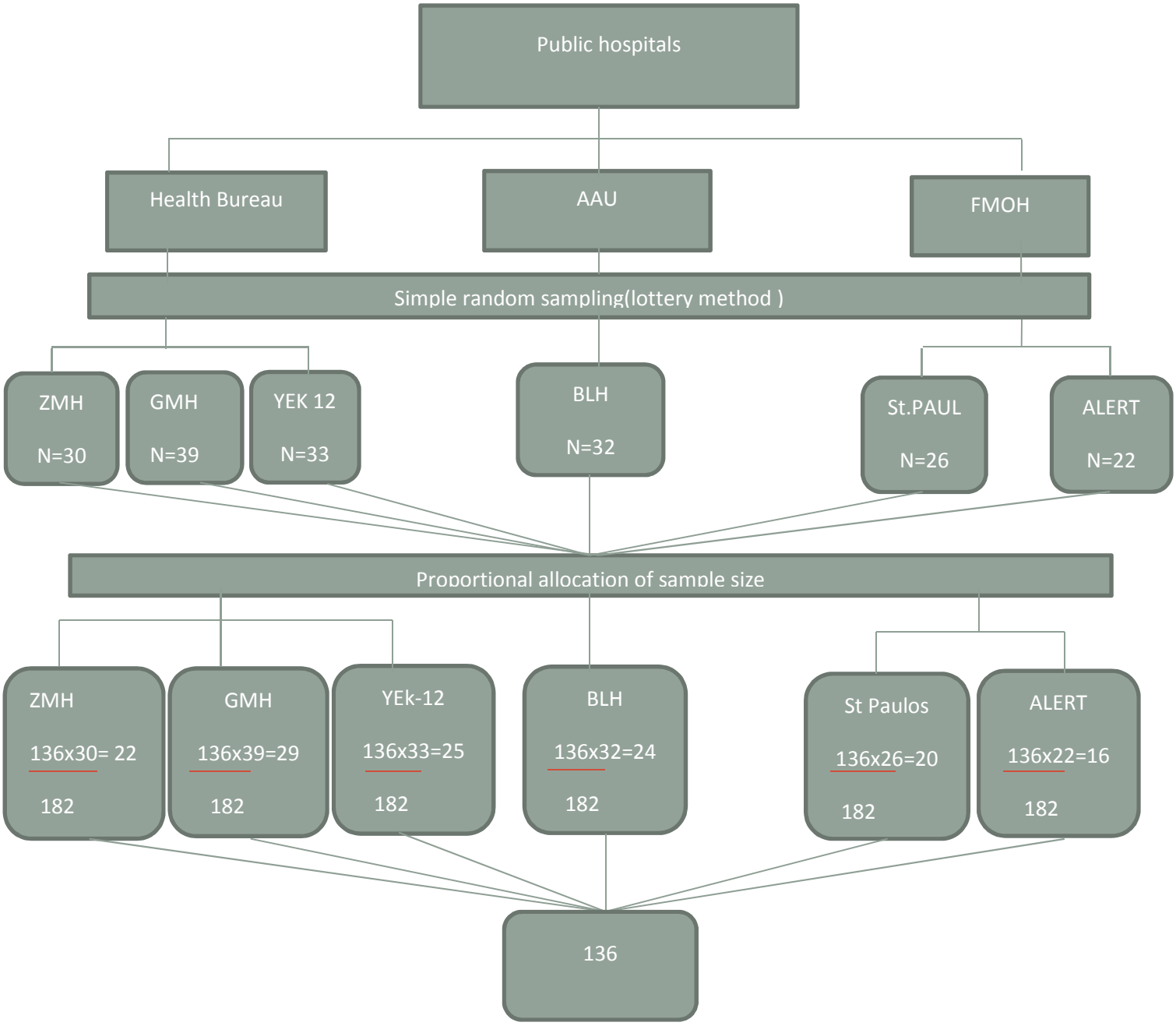


Figure 2: Schematic presentation of sampling procedure

## 4.8 Variables of the study

### 4.8.1 Dependent variable

- ✓ Knowledge
- ✓ Practice

### 4.8.2 Independent variable

Socio demographic characteristics

-Religion

-Ethnicity

-Age

-Sex

-In service training

-Qualification

- Uterotonic drug utilization

## 4.9. Operational definitions

**Active management of third stage of labor:** AMTSL involves interventions to assist in expulsion of the Placenta with the intention to prevent or decrease blood loss. Which has the following components (based on FIGO guidelines): Administration of 10IU oxytocin intramuscularly immediately with in one minute of delivery of infant, apply Controlled cord traction and uterine massage after delivery of the placenta.

**Knowledge:** Refers to the level of awareness and understanding of obstetric care providers regarding active management of third stage of labor. It can be measured by how much the participants respond correctly about its parts.

**Poor knowledge**: - participants who scored below the mean were considered to have poor knowledge.

**Good knowledge**: - participants who scored above the mean were considered to have good knowledge.

**Practice:** Refers to the ability of obstetric care providers to carry out the management of third stage of labor.

**Good**: Step performed correctly in proper sequence

**Poor**: Step performed in proper sequence but lacks precision and step not performed by participant during observation

## 4.10. Data collection tool and procedure

Adapted from published and modified to structured questionnaire already prepared, which had observation check list to be used. Data collected by self-administering the structured English language questionnaire and observation check lists. The data was collected by 3 diploma midwives and 3 BSc midwives and supervised by 4 BSc midwives who had experienced by supervision. One-day training had given for data collectors and supervisors concerning the research objective, data collection tools, procedures, and interview methods were supposed and applied during data collection based on prepared training manual. Trained data collectors were collected data at health facility used revised version of data collection tool from March – April, 2017.

## 4.11 Data Quality Control

Data quality was assured by designing data collection instrument and training of data collectors and supervisors was done and the questionnaire was pre-tested 5% at Rasdesta hospital and checked its consistency. Training was given for the data collectors how to interview and check the questionnaires for completeness during data collection. The principal investigator was checked and reviewed the completeness of questionnaires and offered the necessary feedback for supervisors and data collectors at each day.

## 4.12 Plan for Data Processing and Analysis

The collected data was checked for its completeness manually and then entered in EPI data version 3.1.1 and analyzed using SPSS version 22 statistical software package. Descriptive statistic including proportion, Percentage, ratios, frequency distribution, mean and standard deviation was used to describe the data on knowledge and practice and bivariate and multivariate regressions will be use to study association between dependent and independent variables. CI 95% and p value< 0.05 being statistically significant.

## 4.13 Ethical consideration

Ethical clearance was obtained from Addis Ababa University College of Health Science, school of allied Health Science department of nursing and midwifery institutional review board (IRB) before the staring of the study then Permission obtained from Addis Ababa regional health bureau. Addis Ababa health bureau was written a letter of cooperation for respective hospitals. Respondents were informed about the objective and purpose of the study. Participating obstetric care providers completed the questionnaire based on their verbal consent and assured for maintaining confidentiality for the information obtained from them. Respondents were assured that they have the right to decline giving information at any time without the need to justify the decision and without prejudice.

## 4.14. Dissemination of the results

The result of research will be disseminated both with hard and soft copy to Addis Ababa University Collage of Allied Health Sciences, post graduate program. The research result will be disseminated and accessed to others to be employed as source of information to do further research and even to critique the findings and also the result will be providing to Health Bureau of Addis Ababa City Administration and public health institutions on which study will be conducted. And the findings may be presented in annual scientific meeting and conferences. It will be sent for publication on scientific journals in related fields.

# 5. Result

From the total sample size 136, 135 (99.2%) had participated in the study. Out of the respondents more than half 73(53.6%) were females and 62 (45.6%) were males. A large number of the subjects 118(87.4%) were in the age group of 20-30 with mean age of 26.96. Amhara were the highest in number 65(48.7%) in ethnicity followed by Oromo 31(22.9%). Majority of the study subjects were followers of Orthodox religion. Most of the respondents were BSC midwife 48(35.5%) with least number of seniors 1(0.7%). Majority of the participants respond 0-3 years since they graduate in this profession.

Table 1 distribution of socio-demographic characteristic of obstetric provider at selected governmental hospital Addis Ababa, Ethiopia 2017

| Variables(categories) | Frequency | Percent (%) |
|---|---|---|
| Sex | | |
| Male | 62 | 45.7 |
| Female | 73 | 54.1 |
| Age | | |
| 20-29 | 109 | 80.7 |
| >=30 | 26 | 1 9.3 |
| ethnicity | | |
| Amhara | 65 | 48.1 |
| Oromo | 31 | 23.0 |
| Gurage | 21 | 15.6 |
| Tigray | 16 | 11.9 |
| Other( Sidama) | 2 | 1.5 |
| Religion | | |
| Orthodox | 87 | 64.4 |
| Protestant | 24 | 17.8 |
| Muslim | 20 | 14.8 |
| Jovah witness | 3 | 2.2 |
| Others (Catholic) | 1 | 0.7 |
| Qualification | | |
| Resident | 18 | 13.3 |
| Intern | 30 | 22.2 |
| GP | 4 | 3.0 |
| Senior | 1 | 0.7 |
| BSC midwife | 48 | 35.6 |
| Diploma midwife | 26 | 19.3 |
| Others (Health officer) | 8 | 5.9 |
| Year of Graduation | | |
| 0-3yr | 76 | 56.3 |
| >=3.1yr | 59 | 43.7 |

**In service training**

Most of the participants 97(71.8%) didn't receive any in service training. From the respondents who receive training 38(28.1%), most 30(22.2%) received active management of post-partum labor

Table 2 distribution of in service training of obstetric care provider at selected government hospitals, Addis Ababa, Ethiopia 2017

| Variables( categories) | Frequency | Percent (%) |
|---|---|---|
| In service training | | |
| Yes | 38 | 28.1 |
| No | 97 | 71.8 |
| From who received the training | | |
| -Routine care for labor and normal vaginal delivery | 29 | 21.5 |
| -Active management third stage of labor management of post-partum hemorrhage | 30 | 22.2 |
| -Removal of placenta or product of | 20 | 14.8 |
| -Conceptions (D&C, vacuum aspiration, etc.) Manual removal of placenta | 14 | 10.4 |
| | 15 | 11.1 |

**Personally conduct AMSTOL**

One hundred thirty (93.3%) of the respondents say they personally conduct actual managing of third stage of labor. From those who said yes most 111(82.2%) performs always.

Table 3 Distribution of in service training of obstetric care provider at selected government hospitals, Addis Ababa, Ethiopia 2017

| Personally conduct AMSTOL | Frequency | Percent (%) |
|---|---|---|
| Variables (categories) | | |
| Yes | 130 | 96.3 |
| No | 4 | 3.0 |
| If yes | | |
| Rarely | 2 | 1.5 |
| Some times | 9 | 6.7 |
| Most of the time | 9 | 6.7 |
| Always | 111 | 82.2 |

## 5.1 Knowledge

This study showed 90(66.7%) of good knowledge and Almost equal respondents respond oxytocin 133(98.5 %), ergometrin 111(82.21 %) and misoprostol 106(78.5%) are utrotonic drugs and dose of oxytocin and recommended rout of administration was answered correctly is 10IU and IM by133 (98.5%) respondents. Majority 116(85.9) 0f the respond checking the other baby is their role immediately after the delivery of the baby and administer utrotonic drug within 1 min after delivery. All respondents 135(100%) answered for administration of utrotonic drug, apply control cord traction and uterine massage are essential components of AMTSOL.

Table 4 knowledge of obstetric care provider at selected government hospitals in Addis Ababa, Ethiopia 2017

| **Knowledge assessment items** | Yes (%) | No(%) |
|---|---|---|
| What are the uterotonic drugs? | | |
| Oxytocin | 133(98.5) | 2(1.5) |
| Ergometrine | 111(82.2) | 24(17.8) |
| Misoprostol | 106(78.5) | 29(21.5) |
| What is the dose of oxytocin during AMTSL? | | |
| 0.5mg | 2(1.5) | 133(98.5) |
| 10 IU | 133(98.5) | 2(1.5) |
| 10 mg | 3(2.2) | 132(97.8) |
| 0.5IU | 0 | 135(100.0) |
| What is the recommended route of oxytocin administration during AMTSL? | | |
| IV | 3(2.2) | 132(97.8) |
| IM | 133(98.5) | 2(1.5) |
| PO | 1(.7) | 134(99.3) |
| Per vagina | 0 | 135(100.0) |
| What is your role Immediately after the delivery of the baby? | | |
| Administer uterotonic drug | 25(18.5) | 110(81.5) |
| Check the other baby | 116(85.9) | 19(14.1) |
| Uterine massage | 6(4.4) | 129(95.6) |
| When will you administer the uterotonic drug | | |
| After the delivery of the anterior shoulder | 18(13.3) | 117(86.7) |
| Within 1 min after delivery of Baby | 116(85.9) | 19(14.1) |
| What are the essential components of AMTSL? | | |
| Administer uterotonic drugs | 135(100.0) | 0 |
| Apply control cord traction | 135(100.0) | 0 |
| Uterine massage | 135(100.0) | 0 |

## Practice

This study found over all good practice one hundred twenty-five 125(92.6%) of obstetric care providers are done palpation of the abdomen after the delivery of the first baby to rule out the presence of another fetus before continuing next procedure. There are 116(85.9%) of them give administration of uterotonic drug within 1 min of delivery of baby. All participants 135(100%) give oxytocin with IM route of administration. Those are 95(70.4 %) do not wait for a gush of blood and 123(91.1%) of them supports placenta with both hands. Those 113(83%) obstetric care providers are extracts the membrane gently with lateral movements and 126(93.3%) of them perform uterine massage immediately. There are 128(94.8%) of participants are assessed completeness of the placenta and membrane. From the participants 109(80.7%) are informed the mother to massage the uterus every 15 minutes for 2 hours.

Table 5. Practice of obstetric care provider at selected government hospitals in Addis Ababa, Ethiopia 2017

| **Practice assessment items** | Yes (%) | No (%) |
|---|---|---|
| After delivering the first baby palpates the abdomen and rules out the presence of another fetus before continuing | 125(92.6) | 8(5.9) |
| Record time uterotonic given HH/Min | | |
| Exactly 30 Sec | 23(17.0) | 112(83.0) |
| Below 30 Sec | 34(25.2) | 101(74.8) |
| Above 30 Sec | 78(57.8) | 57(42.2) |
| Time of administration of uterotonic drugs | | |
| After the delivery of anterior shoulder | 8(5.9) | 127(94.1) |
| Within 1 min of delivery of baby | 115(85.2) | 19(14.1) |
| Within 3 min of delivery of baby | 10(7.4) | 125(92.6) |
| More than 3min after delivery of baby | 0 | 135(100) |
| Uterotonic drug given | | |
| Oxytocin | 135(100.0) | 0 |
| Ergometrine | 4(3.0) | 131(97.0) |
| Misoprostol | 6(4.4) | 129(95.6) |
| Route uterotonic given | | |
| IM | 135(100.0) | 0 |
| IV | 3(2.2) | 132(97.8) |
| Oral | 1(.7) | 134(99.3) |

| | | |
|---|---|---|
| Record time the cord was clamped<br>Exactly 30 Sec<br>Above 30 Sec<br>Below 30 Sec | <br>19(14.1)<br>83(61.5)<br>38(28.1) | <br>116(85.9)<br>52(38.5)<br>97(71.9) |
| Waits for strong uterine contraction (2-3 minutes) | 107(79.3) | 28(20.7) |
| Does wait for a gush of blood | 38(28.1) | 95(70.4) |
| Was placenta delivered before Administration of uterotonic? | 51(37.8) | 84(62.2) |
| Applies traction to the cord while applying Supra pubic counter traction | 132(97.8) | 3(2.2) |
| Supports placenta with both hands | 123(91.1) | 10(7.4) |
| Extracts membranes gently with lateral movements | 113(85.7) | 20(14.8) |
| Performs uterine massage immediately following the delivery of the placenta | 126(93.3) | 7(5.2) |
| Assess completeness of the placenta and membrane | 128(94.8) | 5(3.7) |
| Ensures uterus doesn't relax after stopping uterine massage | 120(88.9) | 13(9.6) |
| Inform the mother to massage the uterus every 15 minutes for two hours | 109(80.7) | 24(17.8) |

## 5.3 Factors associated with knowledge and practice

From bivariate analysis only qualification of the respondents becomes significantly associated with knowledge. Also in multivariate analysis qualification becomes significant. Interns are 5.5 more likely be knowledgeable than its counter parts which is residents AOR [5.55(1.29-23.87)].

Table 6 Bivariate and multivariate logistic regression analysis for significant variables with good and poor knowledge value among obstetric care provider at selected government hospitals in Addis Ababa, Ethiopia 2017

| Variable | Poor knowledge N (%) | Good knowledge N (%) | COR (CI 95%) | AOR (CI95%) |
|---|---|---|---|---|
| Qualification resident | 6(33.3) | 12(66.7) | 1 | 1 |
| Intern | 12(40) | 18(60) | 4(1.051-15.223) | **5.55(1.29-23.87)**** |
| GP | 3(75) | 1(25) | 2.4(0.208-27.72) | 3.52(0.281-44.14) |
| BSC midwife | 18(37.5) | 30(62.5) | 0.945(0.318-2.81) | 1.1(0.342-3.59) |
| Dip. Midwife | 14(53.8) | 12(46.2) | 1.8(0.517-6.271) | 2.48(0.594-10.35) |
| Others (Health officer) | 4(50) | 4(50) | 5.6(0.566-55.426) | 7.37(0.68-79.105) |

**significant at P value 0.05

**Practice**

Sex of the participants became statistically significant for practice. Females are 2.56 times more likely associated to good practice than males.

Table 7 Bivariate and multivariate logistic regression analysis for significant variables with good and poor practice value among obstetric care provider at selected government hospitals in Addis Ababa, Ethiopia 2017

| Variable (categories) | Poor practice N (%) | Good practice N(%) | COR (CI95%) | AOR (CI95%) |
|---|---|---|---|---|
| Sex | | | | |
| Male | 20(32.3) | 42(67.7) | 1 | 1 |
| Female | 38(52.1) | 35(47.9) | 2.28(1.13-4.61) | **2.56(1.09-6.04)*** |

*significant at P value 0.05

# 6. DISCUSSION

This facility based cross sectional study was conducted to assess knowledge and practice of obstetric care providers on Active management of third stage of labor and associated factors. This study showed that only 90 (66.7%) obstetric care providers had good knowledge of Active management of third stage of labor, whereas around 33.3% had poor knowledge and good practice 68(50.4%) with poor practice 58(43.0%). This finding is lower when compared with study conducted in southwest Nigeria (19). There is a limited literature about assessing knowledge and Practice of Obstetric Care Providers on active management third stage of labor since the study didn't done on hospitals.

In this study (84.4%) of respondents administer the uterotonic drug within 1 min after delivery which is different from study done in Tanzania (20) that reports only 9%. This may be due to misinformation about time of administration. all respondents 135(100%) answer administer uterotonic drug, apply control cord traction and uterine massage are essential components of AMTSL but study in Tanzania only answer 36% for controlled cord traction and 46% for uterine massage. this different result may be due to lack of training on AMTSL.

Majority of the study subjects 125(92.6%) rules out the presence of another fetus before continuing which is different from study done in Albania hospital (14) found 81.9% didn't ruled out for the presence of another fetus. All 135(100%) give oxytocin as uterotonic drug which is consistent with study in Hawassa that found 94.1%. 95(70.4%) didn't wait for gush of blood to deliver the placenta similarly 74% in study done in Albania (14). For 83(61.5%) placenta was delivered before the administration of uterotonic in contrary Albania study found 96.1%of the obstetric care providers deliver placenta after administration of the uterotonic drug. While observing the delivery 123(91.1%) supports placenta with both hands but in study done in Hawassa (17) 64.7% support placenta with both hands. This difference could be due to negligence to delivery procedures.

Majority 113(83.7%) extract membrane gently with lateral movement which is in line with Hawassa study (17) that reports more than half 52.9%. Most 126 (93.3%) performs uterine massage immediately following the delivery in contrary Albania study showed 52.9% didn't perform uterine massage. The difference could be as result of lack pf proper training. Only 5% (3.7%) of the obstetric care provider didn't assess completeness of the placenta and membrane which is inconsistent to study done in Albania that showed 92.2% didn't assess the completeness of the placenta. 24(17.8%) didn't inform the mother to massage the uterus but study done in Tamil Nadu (21) showed majority (98%) didn't inform the mother.

# 7. STRENGTH AND LIMITATION OF THE STUDY

## 7.1 Strength of the study

- The application of appropriate statistical methods to minimize biases was made and the data was analyzed using appropriate statistical method.

- Since there were no studies conducted in this topic at the hospital level, so it can contribute as baseline data for further study.

## 7.2 Limitations of the Study

- Shortage of domestic literatures done in similar to this topic.

- Qualitative study design was not applied in the study.

- This study didn't address more associated factors.

-Small sample size.

# 8. Conclusion and recommendation

## 8.1 Conclusion:

This study showed over all 90(66.7%) had good knowledge and good practice 68(50.4%) with poor practice 58(43. 0%).qualification of the respondents significantly associated with knowledge, interns are 5.5 times more likely associated to knowledge than residents. Sex of the participants significantly associated with practice. Females are 2.56 times more likely associated to practice than males. The study found low knowledge and practice towards AMTSL than expected since all obstetric care providers should have all the knowledge and proper skill to give service for the community.

### 8.2 Recommendation

**Recommendation for obstetric care provider**

-Obstetric care provider should update their knowledge and improve their skills to give proper service

-Hospitals should arrange to improve training for obstetric care provider who works in labor and delivery units to increase their knowledge and practice towards AMSTL.

- The researcher should have carried out qualitative study to further investigate and identify the knowledge and practice of obstetric care providers.

# 7. REFERENCE


1. Jangsten, E., Hellström, A., Berg, M. (2009) "Management of the third stage of labor-focus group discussions with Swedish midwives". Midwifery, doi:10.1016/j.midw.2008.12.004.
2. International Confederation of Midwives and International Federation of Gynecology and Obstetricians. Joint Statement: (2003) "Management of the Third Stage of Labor to Prevent Post-partum Hemorrhage", No. 136
3. World Health Organization. (2007) "Recommendations for the Prevention of Postpartum Hemorrhage."
4. POPPHI. (2006) "Active management of the third stage of labor. Data obtained from home deliveries in the Cirebon District
5. Rabe, H., Reynolds, G., Diaz-Rossello, J. (2004) "Early versus delayed umbilical cord clamping in preterm infants", Cochrane Database Syst Rev (4):CD003248
6. Cynthia S,a Deborah A,b Rod K,c Iwan A,d Sourou G, e Ashebir G,f Jose Angel P,g Douglas J,h Flor M,i Sayoka M,j Jesus V,k Hope J & David S. Use of active management of the third stage of labor in seven developing countries. Bull World Health Organ 2009;87:207–215 | doi:10.2471/BLT.08.052597
7. Central Statistical Agency (Ethiopia) and ORC Macro: Ethiopia Demographic and Health Survey 2005. Addis Ababa, Ethiopia and Calverton, Maryland, USA: Central Statistics Agency and ORC Macro. 2006
8. World Health Organization. (2005) "Maternal mortality in 2005, estimates developed by WHO, UNICEF, UNFPA and The World Bank" [Cited 2010 May]
9. Cherine M, Khalil K, Hassanein N, Sholkamy H, Breebaart M, Elnoury A. Management of the third stage of labor in an Egyptian teaching hospital. International Journal of Gynecology & Obstetrics. 2004;87(1):54-8.
10. Mario R. Festin, 1 Pisake Lumbiganon, et al , International survey on variations in practice of the management of the third stage of labor Bulletin of the World Health Organization 2003;81:286-291
11. Stanton et al. 2009, World Health Organization 2000

12. Ramadhani F. Midwives' competency for implementation of active management of third stage of labor in Dar es Salaam municipal hospitals, Tanzania: Muhimbili University of Health and Allied Sciences; 2011.
13. Schack SM, Elyas A, Brew G, Pettersson KO. Experiencing challenges when implementing Active Management of Third Stage of Labor (AMTSL): a qualitative study with midwives in Accra, Ghana. BMC pregnancy and childbirth. 2014;14(1):19
14. Bimbashi A, Ndoni E, Dokle A, Duley L. Care during the third stage of labor: obstetricians views and practice in an Albanian maternity hospital. BMC pregnancy and child birth. 201; 10(1):4.
15. World Health Organization: World Health Statistics 2015. 2015
16. World Health Organization, UNICEF, UNFPA, The World Bank, United Nations: Trends in Maternal Mortality: 1990 to 2013: Estimates by WHO, UNICEF, UNFPA, The World Bank and the United Nations Population Division 2014.
17. Zelalem Tenaw Assessment of obstetric care providers Knowledge and Practices towards active management of third stage of labor in Hawassa city health institutions, SNNPRS, Ethiopia 2015
18. Rahel Yaekob1Tsehay Shimelis2Andualem Henok3*Tafesse Lamaro4 Assessment Of Knowledge, Attitude, And Practice Of Midwives On Active Management Of Third Stage Of Labor At Selected Health Centers Of Addis Ababa, Ethiopia, 2014
19. Oladapo OT, Fawole AO, Loto OM, Adegbola O, Akinola OI, Alao MO, et al. Active management of third stage of labor: a survey of providers' knowledge in southwest Nigeria. Archives of gynecology andobstetrics.2009;280(6):9455
20. Mfinanga GS, Kimaro GD, Ngadaya E, Massawe S, Mtandu R, Shayo EH, et al. Health facility based Active Management of the Third Stage of Labor: findings from a national survey in Tanzania. Health Res Policy Syst. 2009;7(6).
21. Mario R. Festin, 1 Pisake Lumbiganon, et al , International survey on variations in practice of the management of the third stage of labor Bulletin of the World Health Organization 2003;81:286-291.

22. Onasoga OA, Awhanaa AT, Ehobhayi AF. Assessment of knowledge of strategies used in the prevention and management of postpartum hemorrhage by midwives in Bayelsa State, Nigeria Archive es of Applied Science Research. 2012;4(1).
23. Honduras I. Active Management of the Third Stage of Labor

# 8. Annexes

## Annex I

**Individual consent form for the study**

**Addis Ababa University Medical Faculty, College of Allied Health Sciences, Department of Nursing and Midwifery**

Survey questionnaire to assess the knowledge and practice of obstetric care providers towards active management of third stage of labor in Addis Ababa city, Ethiopia.

Informed Consent Sheet

**1. Study information sheet**

Introduction and consent form

My name is ----------. I am working with the research team of Addis Ababa University. Hear midwives ------- in the Hospital at labor and delivery unit I am interviewing and observing obstetrics on active management of third stage of labor to evaluate knowledge and practice .I believe that this study would help to bring change in knowledge and practice services for obstetric care providers on active management third stage of labor.

I would like to assure you, your name will not be mentioned in the questionnaire and the information that you will give us will be kept confidential and only used for research purpose. You have full right to refuse to take part or to interrupt the interview at any time. But the information that you will give us is quite useful to achieve the objective of the study and to bring change in the active management third stage of labor service provision by midwives. If you have any question, you can contact the principal investigator Etagegn Bezabih by phone number 0911668768 or Email etagegnbezabih29@yahoo com.

Are you willing to participate in the study? 1- Yes

2 - No

If the answer is yes, thanks! Conduct the interview.

If the answer is no, Thanks!

Don't force or reinforce an individual to participate in the survey

Interviewer's code ---------name ---------- signature -------

Date of interview ---------- month ---------- /2017.

Supervisor's name ----------signature ----------

Time of interview began _____ hours: minutes

Time of interview finished_____ hours: minutes

Checked on ---------- date----------month/2017.

1. Complete
2. Partially completed
3. Incomplete

## Annex. II Questioner format for the study

**Addis Ababa University Medical Faculty, College of Allied health Sciences, Department of Nursing and Midwifery** Post graduate Program In maternity and Reproductive Health

Questionnaire on active management third stage of labor by obstetric care providers.

**INSTRUCTION:**

This questionnaire is designed to determine knowledge on active management third stage of labor by obstetric care providers. The study is for academic purpose with an ultimate goal of drawing conclusions and recommendation that would be help for further trainees of university and policy formulation of our country on active management third stage of labor .Your response is made anonymous so that you can freely express your opinion and fill the choices. This is not a test, there is no right or wrong answer, But please answer all the question completely and carefully.

**NB:** This questionnaire is to be filled by volunteer midwives who are selected for the study.

1. We want to Assure that filled questionnaire are not exposed to public (it is confidential)
2. No one required to write his/her name on the questionnaire

Thank you in Advance

**Self-administered Structured English questions**

**Section I. Socio demographic characteristics and other factors**

| S.no | Questions | Response | |
|---|---|---|---|
| 01 | How old are you? | _____yrs. | |
| 02 | Sex? | 1. Male<br>2.Female | |
| 03 | What Ethnic group do you belong to? | 1.Amhara<br>2.Ormo<br>3.Tigray<br>4.sidama<br>5.Other<br>(Specify)_____ | |
| 04 | What is your Religion? | 1. Orthodox<br>2.Muslim<br>3.Protestant<br>4.Catholic<br>5.Other<br>(Specify)_____ | |
| 05 | What is your qualification? | 1)R1<br>2)R2<br>3)R3<br>4)R4<br>5)Interns<br>6)GP<br>7)Seniors<br>8)BSc. Midwife<br>9) Diploma midwife<br>10)Others<br>(specify)_____ | |
| 06 | What year did you graduate (or | ----------years | |

| | | | |
|---|---|---|---|
| | complete) with this qualification? | | |
| 07 | In what year did you start working in this facility? | ----------years | |
| 08 | What year did you start working in your current position in this facility? | ----------year | |
| 09 | During the past three years have you received any pre service? (Basic) or<br>In service training on subjects related to active third stag management? | 1) yes<br>2) No | |
| 10 | If yes for Q No 09 In the past three (3) years, Which training did you receive from the following topics. | **1.** Routine care for labor and normal<br>vaginal delivery<br>**2**. Active management third stage of labor (AMTSL<br>**3.** Management of post-partum hemorrhage<br>**4.** Removal of placenta or product of<br>Conceptions (D&C, vacuum aspiration, etc.)<br>**5.** Manual removal of placenta<br>6. Not trained at all | |
| 11 | Do you personally conduct the actual managing of third stage of labor? | 1) Yes<br>2) No | |
| 12 | If yes for Q11, How often do you use active management third stage | 1) Never<br>2) Rarely | |

| | | | |
|---|---|---|---|
| | of labor? | 3) Some times<br>4) Most of the time<br>5) always | |
| **Section II. Knowledge assessment** | | | |
| 13 | What are the uterotonic drugs? | 1) Oxytocin<br>2) Ergometrine<br>3) Misoprostol<br>4) All<br>5) Other (specify)_____ | |
| 14 | What is the dose of oxytocin during AMTSL? | 1) 0.5mg<br>2) 10 IU<br>3) 10 mg<br>4) 0.5IU | |
| 15 | What is the recommended route of oxytocin administration during AMTSL? | 1) IV<br>2) IM<br>3) PO<br>4) Per vagina<br>5) Other(specify)_____ | |
| 16 | What is your role Immediately after the delivery of the baby? | 1) Administer uterotonic drug<br>2) Check the other baby<br>3) Uterine massage<br>4) Other (specify)_____ | |
| 17 | When will you administer the uterotonic drug | 1) After the delivery of the anterior<br>shoulder<br>2) Within 1 min after delivery of Baby | |
| 18 | What are the essential components of AMTSL? | 1) Administer uterotonic drugs<br>2) Apply control cord | |

| | | | |
|---|---|---|---|
| | | traction<br>3) Uterine massage<br>4) All | |

| **Section III. AMTSL Practice observation check lists** | | | |
|---|---|---|---|
| **No** | **Observing AMTSL standard steps per observation guide** | **Observation** | |
| 19 | After delivering the first baby palpates the abdomen and rules out the presence of another fetus before continuing | 1) Yes<br>2) No | |
| 20 | Record time uterotonic given | HH/Min [_____:_____] | |
| 21 | Time of administration of uterotonic drugs | 1) After the delivery of anterior shoulder<br>2) Within 1 min of delivery of baby<br>3) Within 3 min of delivery of baby<br>4) More than 3min after delivery of baby | |
| 22 | uterotonic drug given | 1) Oxytocin<br>2) Ergometrine<br>3) Misoprostol | |
| 23 | Record dose of uterotonic given | [_____] | |
| 24 | Route uterotonic given | 1) IM<br>2) IV | |

| | | | |
|---|---|---|---|
| | | 3) Oral<br>4) other | |
| 25 | Record time the cord was clamped | HH/MIN [_____:_____ | |
| 26 | Waits for strong uterine contraction<br>(2-3 minutes) | 1) yes<br>2) No | |
| 27 | Does wait for a gush of blood | 1) Yes<br>2) No | |
| 28 | Was placenta delivered before<br>Administration of uterotonic? | 1) Yes<br>2) No | |
| 29 | Applies traction to the cord while applying<br>Supra pubic counter traction | 1) yes<br>2) No | |
| 30 | Supports placenta with both hands | 1) Yes<br>2) No | |
| 31 | Extracts membranes gently with lateral<br>Movements | 1) Yes<br>2) No | |
| 32 | Performs uterine massage immediately<br>following the delivery of the placenta | 1) Yes<br>2) No | |
| 33 | Assess completeness of the placenta and<br>Membrane | 1) Yes<br>2) No | |
| 34 | Ensures uterus doesn't relax after stopping<br>uterine massage | 1) Yes<br>2) No | |
| | | | |

| | | | |
|---|---|---|---|
| 35 | Inform the mother to massage the uterus every 15 minutes for two hours | 1) Yes<br>2) No | |