

Knowledge and Practice Towards Active Management of Third Stage of Labour, Among Obstetric Care Providers Adama Town Governmental Health Facilities, Oromia, Ethiopia From September 12 to November 08 2019

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Abstract

Introduction: The third stage of labour is period between birth of the baby and complete expulsion of the placenta and membrane, which is risky period because of profuse Post-partum hemorrhages. It is prophylactic intervention composed of a package of three components or steps: It includes use of uterotonic immediately following delivery of the fetus, controlled cord traction and fundal massage immediately after delivery of the placenta, followed by palpation of the uterus every 15 minutes for 2 hours to assess the continued need for massage. Unfortunately, the knowledge and practice of obstetric providers toward active management of third stage of labour is disappointing when assessed as our country. The purpose of this study was to investigate and analyze knowledge and practice of active management of the third stage of labor among skilled birth attendants, Adama, Oromia, Ethiopia September 12 to November 08,2019. **Method:** Facility based cross sectional study was conducted to health facilities in Adama town, among randomly selected 117 obstetric providers, from September 12 to November 08, 2017. By using pretested semi structured questionnaires for knowledge assessment and observation checklists for practice. The collected data were analyzed by using SPSS version 20 statistical software. Descriptive statistics was used for describing study participant and determining results. Binary logistic regression analysis was done and variable with p-value ≤ 0.025 were entered into multi variable logistic regression analysis to characterize the association between the variables at P-value ≤ 0.05 , at CI=95% for statistical significance.

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Result: 117 health care workers who works in Adama town health facility were included in the study with response rate of 100 % (n=117), Out of which, 66.7% (n=78) were females and 61.5 % (n=72) were from health center. The mean age was 32.38 with SD ± 5.55 years. 37.6% and 28.3% obstetric providers had knowledge and good practice on components of AMTSL respectively. Age less than 30 was 2.76 times more [AOR=2.76(1.05-7.27)], being female was 3.83 times less [AOR=3.83(1.39-10.57)] and Working at health center 5.76times less [AOR= 5.76(2.12-15.67)] associated with knowledge. In addition to that obstetric providers working at health center was 3.63 times less [AOR=3.63(1.57-8.41)] associated to practice. Conclusion and recommendation: In this study, knowledge and practice of obstetric care providers towards active management of third stage of labor is still very low. Since there is knowledge and practice difference between hospital and health centers it is recommended to plan for experience sharing and on job training especially for health centers staff.

Key words: knowledge; practice; attitude; active; labour; 2019.

1. Introduction

The third stage of labour is period between birth of the baby and complete expulsion of the placenta and membrane [1]. This period is a risky period because uterus may not contract well and heavy blood loss can endanger the life of the mother [2]. The stage is a powerful and puzzling time, more important and complex than what is acknowledged and known [3] and most hazardous stage because normal physiologic process will have risk for the woman who is giving birth due to profuse Post-partum hemorrhage (PPH) [4]. Post-partum haemorrhage (PPH) occurs in over 10% of all births [5] leading cause of maternal mortality with 25% of all maternal deaths worldwide [6] associated with a case fatality rate of 1% [5]. More than 80% cause of PPH is atonic PPH [7]) and majority of these deaths are preventable by adopting simple, effective, safe strategies such as active management of third stage of labour (AMTSL). WHO(2014) systematic analysis on global causes of maternal death, indicated as Postpartum haemorrhage can be prevented by the active management of the third stage of labour – an intervention that can reduce maternal blood loss by up to 66% compared with physiological or expectant management [8]. Since two-thirds of women who have PPH have no risk factors, every woman is at risk for PPH [1]. Routine use of active management of the third stage of labour for all vaginal singleton births in health facilities is recommended by the International Federation of Gynecologists and Obstetricians (FIGO) and the International Confederation of Midwives (ICM), as well as by WHO [9]. Also, this practice is included in the maternity care package against which all other maternity-related interventions were compared in a recent cost-effectiveness analysis as part of the Disease Control Priorities in Developing Countries Project [10]. It is a feasible and reasonably priced intervention that can help to save millions of women's lives especially in a poor resource setting [11]. It is a prophylactic intervention composed of a package of three components or steps: 1) administration of an uterotonic, preferably oxytocin, immediately after birth of the baby; 2) controlled cord traction (CCT) to deliver the placenta; and 3) massage of the uterine fundus after the placenta is delivered. The original guidelines of the joint statement of FIGO and ICM included administration of uterotonic agents and cord clamping within one minute of delivery of the baby [12]. The other components of statement include active separation of the placenta by controlled cord traction (CCT) following signs of placenta separation; and uterine massage (UM) immediately after delivery of the placenta and subsequently every fifteen minutes for two hours [12]. WHO (2006) recommends Active Management of Third Stage of Labour should be

practiced by all skilled attendants at every birth to prevent postpartum haemorrhage [13]. The global consensus regarding the benefits of AMTSL was strongly supported by clinical trials conducted on PPH prevention [14]. The ICM-FIGO guidelines were modified in 2006 to include the recommendation of delayed cord clamping one to three minutes after birth, as this allows a prolonged flow of blood in the cord and thus may improve iron status in the infant [15]. However, oxytocin was pointed out as the drug of choice in preference to other injectable uterotonics and Misoprostol [16]. In 2012, the WHO released new guidelines where the emphasis on CCT was revisited [11]. The new recommendations, based on a study by Gulmezoglu and colleagues, argued that omission of CCT has little effect on the risk for severe haemorrhage [17]. This WHO trial also demonstrated that the addition of CCT did almost nothing to reduce haemorrhage. As the women who received CCT bled 10 ml less on average than women who delivered their placenta by their own effort. There was a real difference, however, in terms of the length of the third stage: third stage was an average of six minutes longer among those women who did not receive CCT. The authors acknowledged that this could be an important amount of time, not so much for the woman, but for the management of busy labour and delivery units [11]. It is therefore, considered optional in settings where skilled birth attendants are available but contraindicated in settings where other health workers assist in childbirths [11]. Furthermore, early cord clamping less than one minute after birth has since 2012 been generally contraindicated with respect to the benefits that delayed cord clamping may have on the infant's iron status. Also in 2012, continuous uterine massage was discommended as a component of AMTSL in women who have received prophylactic oxytocin for the following reasons; it may cause maternal discomfort, it requires the presence of a dedicated health professional, and may not lead to a reduction of blood loss. In a recent study by Sheldon and colleagues, the use of uterine massage is not associated with a reduction of PPH incidence but may in fact lead to an increased risk of severe bleeding [18]. However, surveillance of uterine tonus through abdominal palpation is recommended in all women for early identification of postpartum uterine atony. Considering data from this trial and the existing evidence concerning the role of routine uterine massage in the prevention of PPH, the WHO issued new recommendations clarifying that although administration of a uterotonic remains central to the implementation of AMTSL, the performance of CCT and immediate fundal massage are optional components [18]. In summary, the use of uterotonics is considered as the main intervention throughout the active management of third stage of labour [11, 17]. The FMOH of Ethiopia has adopted AMTSL in a management protocol in 2010 and BEmONC guideline in 2013 [19, 20]. Accordingly, AMTSL is the administration of uterotonic agents (preferentially oxytocin) followed by controlled cord traction and uterine massage (after the delivery of the placenta) [19, 20]. The objective of this study will be to investigate and analyze knowledge and practice of active management of the third stage of labor among skilled birth attendants in Adama town health facilities. Since there is no study done on AMTSL in this town, it can be also used as base line for future research done in the town. Despite its international endorsement and effectiveness, AMTSL has not been appropriately adopted into practice by most obstetric providers. For instance study done by WHO(2007) quantitative study in a large five-country shows, knowledge and practice on AMTSL is low, diversified and wide gap between evidence-based standards and provider competence in AMTSL [21]. Other study done in a seven-country by Stanton etl (2009), the application rates of AMTSL by skilled birth attendants(SBAs), even in areas where knowledge scores were high, showed poor adherence; Ethiopia demonstrated correct use of AMTSL in only 0.5% to 32% of deliveries observed [22]. A year later, USAID sponsored a survey by Stewart (2010) on the practice of AMTSL by skilled birth attendants (SBA) in

Uganda, Tanzania, and Ethiopia, showed the proper use of AMSTL according to the ICM/FIGO definition was 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% [23]. More recently, Facility-based active management of the third stage of labour: assessment of quality in six countries in sub-Saharan Africa by Linda Bartlett (2015), indicated AMTSL was performed within 1 minute of birth in 30% (n=35) of vaginal delivery and increased to 40% (34) when time bound extend to three minutes. In study done in Addis Ababa (2014), 70 (51.5%) of midwives achieved satisfactory standard scores in knowledge questioners and 64 (47%) had achieved good in skills [24]. Other Study done on AMTSL at Hawassa town (2016), only 33.3% (n=24) of the respondent had knowledgeable on three components, i.e., administering uterotonic drugs, apply control cord traction and uterine massage and only 31.9% (n=23) of the obstetric care providers gave the uterotonic drugs within one minute [25]. Since the assessment on AMTSL nationally very low and data on Adama town were not available, it is my assumption that within Adama town the knowledge and practice rates toward AMSTL by skilled birth attendants would be low as well. The purpose of this study is to investigate and analyze the level of knowledge and practice toward active management of the third stage of labor among skilled birth attendants in Adama town This study sought to generate information on level of knowledge and practice of Adama town obstetric providers toward of AMTSL. Since there was no study on AMTSL in Adama: knowing the level knowledge and practice of obstetric care providers toward AMTSL in Adama will be serve as bench mark to be used by different stakeholder in different ways. The research will use as a base line for other researchers while health managers use as base line for training and supportive supervisions. On other hand, health institution use to facilitate the practice of AMTSL and obstetric providers to update their knowledge and practice on AMTSL. This in turn will result in most mothers receiving standard AMTSL hence decrease incidence of postpartum haemorrhage, shorten duration of third stage of labour and decrease maternal mortality. Finally, the researcher will acquire knowledge of research and wide knowledge on AMTSL, while referring many literature.

2. Method and material: Material and methods

2.1 Study design and setting

Facility-based cross-sectional study design was conducted. The study was conducted in Adama town, which is located about 99kms east of Addis Ababa, (the capital city of Ethiopia) from September to October 2019. Adama town health institutions serve a large size of the population from East and southern Oromia, Afar, Somali, Southern Nation Nationalities and People (SNNP), and even from some parts of the Amara region. In the town, there are seven health centers and five hospitals (one public and four private).

2.2 Sample size determination and Sampling procedures

2.3 Sample size determination

Sample size was determined by single proportion formula by considering proportion of knowledge and practice of obstetric care providers towards active management of third stage of labor which was 51.5% and 47.1%

respectively, from the study conducted in Addis Ababa City Administration in 2014(24), 95%CI and 5% of marginal error.

Sample size estimate using the following assumption like; $n = \frac{(Z_{\alpha/2})^2 \times P \times (1-P)}{d^2}$

$$d^2$$

Where, n = minimum sample size $Z_{\alpha/2}$ = Z value at ($\alpha = 0.05$) = 1.96 D = Margin of error (0.05). So, minimum sample size,

$n = 384.16 \sim 384$ when $p=51.5\%$.

$n=431.47 \sim 433$ when $p=47.1\%$ (N=141 from Adama town health office and Adama hospital medical college) Accordingly, for knowledge level the calculated sample size become 384 and for practice level, sample size became 433. Then, largest sample size 433 was taken.

Since, the population is < 10,000; using correction formula

$$nf = no \times N / (no + N), nf = 433 \times 141 / (433 + 141), nf = 106$$

To adjust for non-responses 10% contingency of the calculated sample size added to the N as follows $106 \times 10\% = 6$ then $106 + 10.64 \sim 117$. Therefore, $nf = 117$ Obstetric providers.

3. Data collection procedures

Semi-structured questionnaire was developed from the literature of similar studies. It was prepared in English and not translated because survey was filled by obstetric providers. Data were collected by trained midwives. The data collectors were trained for one day on the objectives of the study and how to conduct the interview, fill in the questionnaire, and handle questions that were asked by clients. Supervisors tracked the data collectors and provided any necessary correction on the pimple.

3.1 Data processing and analysis

To ensure the quality of data, all filled questionnaires were checked for completeness and consistency. Data were entered into SPSS version 20.0 for statistical analysis. Descriptive statistical analysis was used to compute frequency, percentage and mean for independent and dependent variables. Binary logistic regression analysis was used to ascertain the association between explanatory variables and outcome. Variables with significant association in the bivariate analysis were entered into multivariate analysis to determine knowledge and practice about obstetric care providers. Variables with P value less than 0.05 was considered as statistically significant. Finally, the result was presented in texts, tables and graphs.

3.2 Ethical considerations

Ethical approval and clearance was taken from Adama hospital medical college institution of review board (IRB) and Oromia regional health bureau institution of review board (IRB) then formal letter was written by Oromia region health bureau to Adama town health office. Permission letter was also written by Adama town health office to conduct the study in each selected health facility in the study area. After explaining the purpose of the study, verbal informed consent was obtained from respondents before data collection. The right to withdraw the study at any time was also assured. Coding was used to eliminate names and other personal identification of respondents throughout the study process to ensure participants confidentiality.

4. Result

4.1 Socio-demographic characteristic and experiences of obstetric care providers

One hundred seventeen obstetric care providers were participated in the study, with 100 % response rate. Out of which, 66.7% (n=78) were females and 72(61.5%) were from health center. Almost half of respondents 49.6 % (n=58) had pre service training while only 30 % (n=35) had on job training. The mean age of the study population was 32.38 with SD ±5.55 years.

Table 1: Socio-demographic characteristics of the obstetric care providers in Adama town, Oromia regional state, October 2019

Socio-demographic characteristics		Frequency	Percent	
Age category	≤ 30	54	46.2	
	31-45	63	53.8	
Sex of obstetric providers	Male	39	33.3	
	Female	78	66.7	
Professional category	For knowledge survey	Obs/gyn resident	17	14.5
		IESO 2 nd year	9	7.7
		Health officer	17	14.5
		Midwife	36	31
		Nurse	38	33
	For practice check list	resident and IESO	26	22.2
		midwives	53	45.3
nurses		38	32.5	
Type of health facility	Hospital	45	38.5	
	Health center	72	61.5	
Service year category	≤5	71	60.7	
	>5	46	39.3	
Pre service training	Yes	58	49.6	
	No	59	50.4	
On job training	Yes	35	29.9	
	No	82	70.1	

4.2 Knowledge of obstetric care providers on active management of third stage of labor

Knowledge of providers assessed by using pre-specified criteria by FIGO/ICM for AMTSL. FIGO/ICM definition, which involves administration of 10 IU of oxytocin/ergometrine within 1 minute following the delivery of the fetus, controlled cord traction, immediate uterine massage following delivery of the placenta, and palpation of the uterus every 15 minutes. Therefore, about 88%(n=103) knows uterotonic

drugs, 73.5% (n=86) controlled cord traction, 71.8% (n=84) uterine massage and 65.8% (n=77) all components (fig 5 below). Despite, the higher score on individual components of AMTSL only 37.6% (n=44) respondents found to be knowledgeable according to FIGO/ICM criteria A (fig 5). However, when criteria B used that is extending the time of uterotonic drug administration to three minutes, the knowledge of obstetric providers was improved to 50.4% (n=59).

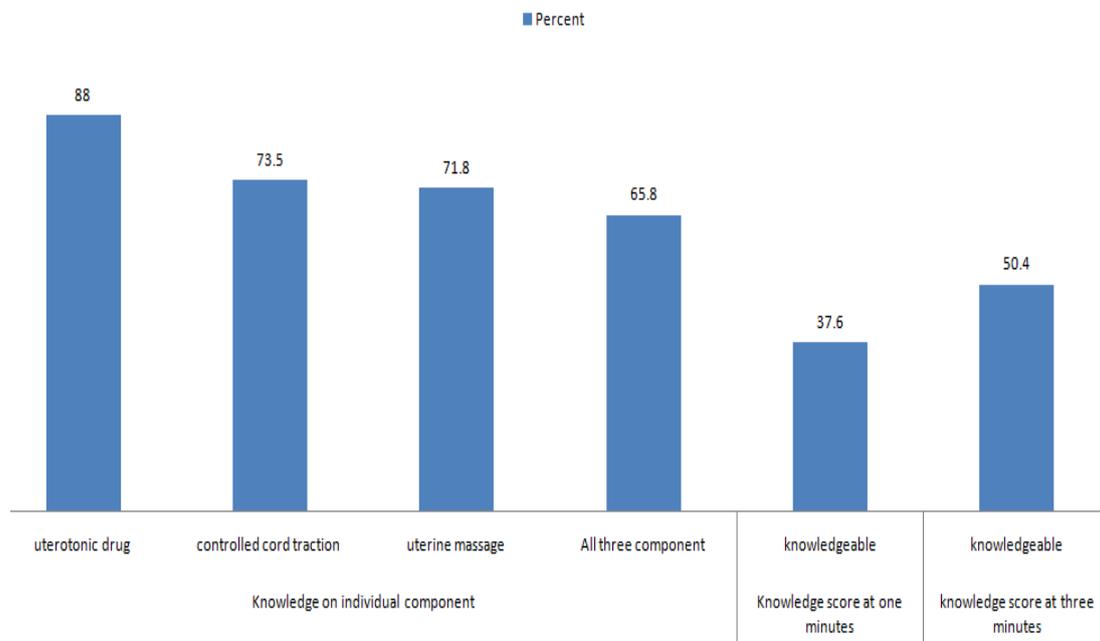


Figure 1: Knowledge of obstetric providers on Components of AMTSL in Adama town, Oromia, October 2019

Table 2: knowledge of obstetric care providers on active management of third stage of labor in Adama town, Oromia regional state, 2019

Variables	Correct response	Frequency	Percent
Individual components of AMTSL	Uterotonic drug	103	88.0
	Controlled cord traction	86	73.5
	Uterine massage	84	71.8
	Three component	77	65.8
Knowledge score on AMTSL at one minute	Knowledgeable	44	37.6
Knowledge score at three minutes	Knowledgeable	59	50.4
Knowledge on Uterotonic drug	Oxytocin	113	96.6
	Ergometrine	100	85.5
	Misoprostol	99	84.6
First line uterotonic drug for AMTSL	Oxytocin	87	74.4
Dose of oxytocin during AMTSL	10IU	92	78.6
Route of oxytocin during AMTSL	IM	85	72.6
Provider role immediately after delivery of baby	Checking of presence of twin	69	59.0
Time of uterotonic drugs	within one minutes	51	43.6
	with 1 to 3minutes	46	39.3
	after delivery of anterior shoulder	16	13.7

Then respondents were asked about the provider role immediately after delivery of baby and 59% (n=69) were answered the correctly as checking of the absence twin. Respondents were also asked whether they know different type the uterotonic drugs, 96.6 % (n=113) responded oxytocin, 85.5(n=100) ergometrine, 84.6 % (n=99) misoprostol and 76.1 % (n=89) all type of uterotonic drugs. On other hand respondents were also asked first line uterotonic drug, dose and route during AMTSL, 74.4% (n=87) answered correctly oxytocin, 78.6 % (n=92) answered correct dose 10IU and 72.6 % (n=85) answered IM route correctly for AMTS. Less than half, 43.6 % (n=51) respond time of uterotonic drug administration with one minutes.

4.3 Practices of obstetric care providers on active management of third stage of labor

By using similar criteria on observational checklist for practical assessment, all birth attendants utilized at least one type of uterotonic drugs, 84.6% utilized controlled cord traction, 65%(n=76) utilized uterine massage and other 62.4%(n=73) ensures uterus not to relax after delivery of placenta. 71.8% (n=84) of the obstetric care providers were observed during active third stage management, when they palpate the abdomen to rule out the presence of twin before administering oxytocic drugs. Nevertheless, the score of practice was lowered to 28.2 % (n=33) when utilization of oxytocin 10IU, IM, with one minute calculated according to FIGO/ICM criteria. During observation, about the time of oxytocin drug administration during active third stage management, only 45.3 % (n=53) of the administered oxytocin within one minutes (figure below).

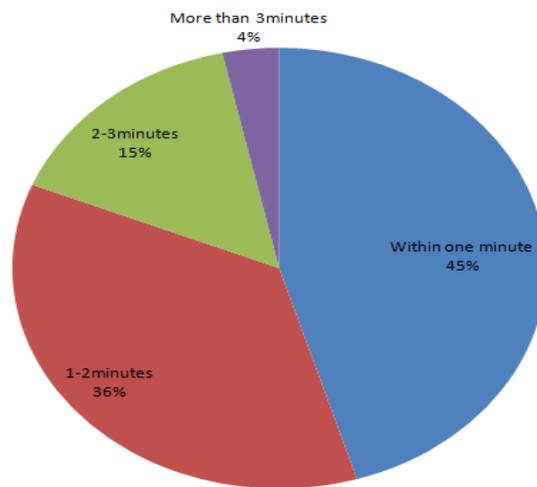


Figure 2: Time of oxytocic drug administration of obstetric care providers in Adama town, October 2019

They were also observed for route and dose of oxytocin drug administration, 89.7 % (n=105) administer IM while 10.3 % (n=12) give through secured IV line into bag of fluid. Correct dose, 10IU was given for 96.6 % (n=113) and, 56.4% (n= 66) of the obstetric care providers did not wait the contraction of the uterus after administration of the uterotonic drugs to apply CCT. In addition to that 76.9% (n=90) of the obstetric care providers rid of placenta after administration of the uterotonic drugs and checks the completeness of placenta after deliver while 52.1% (n=61) inform mothers to insures uterus tone by them self.

Table 3: Practices of obstetric care providers on active management of third stage of labor in Adama town, Oromia regional state, October 2017

Practice checklist		Frequency	Percent
practice score at one minute	good practice	33	28.2
	poor practice	84	71.8
Three components of AMTSL	Uterotonic drug given	117	100
	Apply CCT	99	84.6
	Uterine massage	76	65.0
	three component	66	56.4
Dose of uterotonic drug given	10IU	113	96.6
Route uterotonic drug given	IM	105	89.7
Time uterotonic drug given in minute	Within one minute	53	45.3
	1-2minutes	42	35.9
	2-3minutes	18	15.4
	More than 3minutes	4	3.4
Time extend to three minutes	Up to 3minutes	111	94.9
	More than 3minutes	6	5.1
Rule out presence of twin	Yes	84	71.8
	No	33	28.2
Ensures uterus doesn't relax	Yes	73	62.4

4.4 Factors associated with knowledge of obstetric care providers

Binary and multivariate analysis was done to identify factors associated with obstetric care provider's knowledge. Crude odds ratios were estimated for all independent variables including, age category, sex, professional category, service year, pre and on service training and type of health facility by binary logistic regression. All independent variables with $p \text{ value} \leq 0.025$ at bivariate analysis were entered into multivariate analysis to control for all possible confounders. On multivariate analysis, age categories, sex, type of health facility were associated with knowledge of responders. Age less than 30 was 2.76 times more associated with knowledge of providers [AOR=2.76(1.05-7.27)] while being female was 3.83 times less [AOR=3.83(1.39-10.57)] and Working at health center on other hand was 5.76times less associated with knowledge of providers [AOR= 5.76(2.12-15.67)].

Table 4: Results of multiple logistic regression analysis of active management of third stage of labor knowledge among obstetric care providers, Adama town, October 2019

Variables	Knowledge			Odd ratio at 95% CI	
	Yes	No	P.V	COR	AOR
Professional categories					
Resident & IESO	22	4	.001	.03(.01-.11)	.18(.02-2.16)
HO	3	14	.664	.71(9.15-3.37)	.55(.08-3.98)
Midwives	14	22	.015	.24(.08-.76)	.61(.13-2.85)
Nurses	5	33	1.00		
Sex					
Male	27	12	1.00		
Female	17	61	.001	8.07(3.40-19.21)	3.83(1.39-10.57)
Pre service training					
Yes	29	29	.007	.34(.16-.74)	.93(.32-2.66)
No	15	44	1.00		
Type of health facility					
Hospital	32	13	1.00		
Health center	12	60	.001	12.31(5.03-30.1)	5.76(2.12-15.67)
Age category					
≤ 30	31	23	.001	5.18(2.30-11.71)	2.76(1.05-7.27)
31-45	13	50	1.00		

4.5 Factors associated with practice of obstetric care providers

Regarding the practice of the obstetric care providers on active management of third stage of labor, binary and multivariate analysis was done to identify factors associated with obstetric care provider’s practice. Crude odds ratios were estimated for all independent variables of study. Accordingly, only type of health facility was found to significant at binary logistic regression. As a result, obstetric providers working at health center was 3.63 times less practiced AMTSL as compared to those who works at hospital [AOR=3.63(1.57-8.41) (table5 below).

5. Discussion

In Ethiopia, the available reports showed that the level of knowledge and practice of obstetric care providers on active management of third stage of labor is not satisfactory only 30%(n=34) shows correct demonstration of AMTSL(48). This study has tried to evaluate the level of knowledge and practice on active management of third stage of labor among obstetric care providers who work in Adama town, Oromia region state by utilizing a cross sectional facility based study design. Based FIGO/ICM joint statement guideline questioner survey was prepared and providers were asked about the components of active management of third stage of labour, 88 % (n=103) knows uterotonic drugs as component of AMTSL. The finding was similar to 88.2% study done in Hawasa town [25] and 88.4% of Nigeria [47]. The next frequently responded component of AMTSL was

controlled cord traction 73.5 % (n=86). The result was also similar to 74.5% of Nigeria [47]. The least responded component was 71.8 % (n=84) uterine massage and 65.8% (n=77) respondents responded all components of AMTSL. The score on three components was lowered from 65.8% to 37.6% when time of oxytocin administration within one minute was considered. However, the result increased to 50.4% when an extended definition was used as extending time of oxytocin administration to three minutes. These findings were lower than study done in Addis Ababa 63.2% (n=86) [24] but, higher than study done in Hawasa town which was 33.3% [25] and also base line survey conducted on obstetric care provider's knowledge on active management of third stage of labor in south Nigeria 28.3 % [47]. Also better than findings from a national survey in Tanzania 9% [49]. The difference may be due to difference in set up, Sample size and different in guideline used. Some study was done as national level, which may bring different because variability in set up. Regarding factors associated to knowledge of providers, based multiple regression output shows, Working at health center was 5.76 times less associated with knowledge of obstetric providers [AOR= 5.76(2.12-15.67)]. This study goes with study done in line with study done in Kenya where being in level 4 and 5 was 26.67 times knowledgeable than those in level 3 and below [50]. Age less than 30 was 2.76 times knowledgeable than those age greater than 31 [AOR=2.76(1.05-7.27)] while Being female was 3.83 times less associated with knowledge [AOR=3.83(1.39-10.57)]. This could be due to professional difference as majority of nurses and midwives were female while majority of residents and IESO were male. Regarding the practice of the obstetric care providers on active management of third stage of labor, in hospital except senior obstetrician all providers were observed for practical and in health centers, health officers were not observed while practicing AMTSL. These because in health center, all labor were managed by midwife and nurses. In this study uterotonic drug administration was utilized 100 % (96.6% oxytocin vs. 3.4% ergometrine) which was similar to study done in Hawasa town [25], facility based study of six developing countries in which Ethiopian share was 97% (96% oxytocin vs. 1.7% ergometrine) [48] and Kenya [45]. Different from study done in Uganda 89.2% (61.4% ergometrine vs. 27.4% oxytocin) [51] and Istanbul, Turkey 95% [22]. Controlled cord traction was the second most utilized component 84.16% (n=99) which was better than that of Hawasa town 76.5 % [25], six developing countries Ethiopian share [48], Uganda 67.6% [51], Kenya 8.3% [45] and also Nepal 50% [43]. In addition, uterine massage was 65 % (n=76) which was lower than that of Uganda 69.5% [51] but better than 42% of Ethiopian share of facility based study done in six developing countries and 33% that of Kenya state [45]. These may be because of difference in guideline, policy among countries, facility, sample size and year of study. In spite of fact, the higher value in individual components, when first line drug oxytocin 10IU IM with one minute was added into account according to FIGO/ICM criteria [15], Only 28.2 % (n=21) of the study subjects were practiced all components of AMTSL. This finding was better than finding from study done in Hawasa town 15.7% of obstetric caregivers were skilled [25] and Egyptian teaching hospital 15% [52]. Also better than Uganda 5.4% [51] and south Nigeria 7% [47]. But lower than 30% (n=34) Ethiopian share six developing countries [48]. These may be because our study was done in only one town probably better when compared to national coverage. Moreover, our study include teaching hospital may updated information brought the difference and there were time gap and sample size difference among study done in different countries. When we consider factors associated with practice of obstetric providers, obstetric providers working at health center was 3.63 times less practiced AMTSL as compared to those who works at hospital [AOR=3.63(1.57-8.41)] and in line with study done in Oshogbo state of Nigeria where providers working in tertiary facility were 15.81 times

skilled than primary facility [41]. Conclusion : Knowledge and practice on individual component of active management of third stage was good however, when standard dose, route and time of administration for uterotonic drug were considered, the score was still very low. Age, sex and type of facility were factors associated with level of knowledge and practice.

6. Recommendation

Knowledge and practice of Level on active management of third stage of labour among obstetric provider in Adama governmental health facility was low from what we would hope given the importance of the intervention and resource that have been invested in boost it. Therefore, improvement in health care quality and practitioner adherence to recommended guide line of AMSL urgently requires educational and that targets those who provide routine delivery care but more important training of providers in necessary skill and organization of health care delivery system in a way that enables providers to act on acquired knowledge and practice.

7. Limitations of the study

The study was conducted at the institutional level and not (community level) ,which is not possible to see whether they are actually practicing their knowledge in the daily life or not.

Qualitative methods not used

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8. Disclosure

The author declare that there is no conflict of interest

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