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MIDWIVES' KNOWLEDGE AND UTILIZATION OF LIFE SAVING SKILLS FOR THE PREVENTION OF POST-PARTUM HAEMORRHAGE IN SELECTED HOSPITALS IN ENUGU- NIGERIA

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Abstract Background: Maternal morbidity and mortality have been a major issue for decades, despite different programme created to reduce it; the rate of improvement remains slow. Post- partum haemorrhage being the leading cause of maternal mortality can be prevented if every third stage of labour is actively managed. Many studies have proved that active management of third stage of labour is effective. This study was designed to assess knowledge and utilization of life saving skills for the prevention of post-partum haemorrhage in selected hospitals in Enugu, Nigeria. **Methods:** This study adopted observational and a cross sectional descriptive survey to gather information from 102 respondents. The instruments for data collection were structured questionnaire and an observational checklist based on guidelines on the use of Life saving skills for the prevention of Post-Partum Haemorrhage. The questionnaire assessed knowledge, and utilization while the observational checklist was used to assess the actual practice of the midwives. **Results:** The study showed that 58.8% of the respondents reported high level of practice of active management of third stage of labour(AMTSL) for the prevention of postpartum haemorrhage while 37.5% had high practice of AMTSL on observation. Furthermore, 76.5% of the respondents had received training on AMSTL for the prevention of postpartum haemorrhage and 100% of the respondents stated that AMSTL is used in their hospitals.

Conclusion: Periodic workshops and seminars, frequent monitoring and supervision of midwives with or without notice to assess their practices will be beneficial for ensuring safety of lives and improving quality of care.

Keywords: Midwives' knowledge, Lifesaving skills, Post-Partum Hemorrhage

Introduction

Pregnancy and childbirth is a normal physiological process bringing a joyful experience to many individuals and families. Each year, more than 200 million women become pregnant globally and a large number of women die as a result of complications of pregnancy or childbirth thus making the joyful experience threatening and scary to many people[1]. According to World Health

Organization [2], Post-Partum Haemorrhage (PPH) is the loss of blood per vagina in excess of 500 ml (or more than l,000 ml following caesarean section) within the first 24 hours of delivery. However, corresponding females indeveloping countries who are already malnourished may develop profoundcardiovascular instability with blood loss ofless than 500mls hence the definition ofPPH was thus expounded to include anyamount of blood loss that can causecardiovascular instability or loss of more than10% of the woman's blood volume[3].

Approximately 14 million women sufferprimary PPH annually and at least 128,000 of these women bleed to death[2].PPH is responsible for about 27.1% of maternal mortality worldwide and reaching as high as 60% in some countries [2]. It is the single most important cause of maternal mortality in sub-Saharan Africa [4]. Most of these deaths occur within four hours of delivery and are as a result of problems during the third stage of labour[2].

PPH can be prevented and treated by early aggressive and coordinated interventions. Thus the use of life saving skills (LSS) to reduce maternal mortality and morbidity from these conditions has been a welcomed development. Lifesaving skills are basic life support to circulation, breathing and give first aid [5]. They are set of actions needed to keep the mother and child alive until professional help arrives. LSS has been part of midwifery curriculum and in-service training in Nigeria since 1992 [6].Life Saving Skills help caregivers to prevent, recognize and manage life threatening emergencies through history taking, physical examination, problem identification with appropriate action and referral.

The lifesaving skills measure for prevention of PPH is active management of third stage of labour (AMTSL). The AMTSL involves three main components: Firstly, the use of uterotonic agents within one minute following the birth of the baby which is one of the most important interventions used to prevent post-partum haemorrhage[7]. Oxytocics (such as oxytocin and ergometrine) and prostaglandins or its analogue such as misoprostol have strong uterotonic properties and have long been used to treat uterine atony and reduce the amount of blood lost during childbirth and placental delivery. Secondly, is delivery of placenta with controlled cord traction (CCT) which involves the traction on the cord during a contraction combined with counter-traction upward on the uterus with the provider's hand placed immediately above the symphysispubis. CCT facilitates expulsion of the placenta once it has separated from the uterine wall. And the third component of AMSTL is the massage of the uterus after delivery of the placenta. It is an action in which the health care provider or the midwife places one hand on the fundus of the uterus through the woman's abdomen to rub or knead the uterus until it is firm[8].

The burden of mortality from post-partum haemorrhage overwhelmingly occurs in developing countries of the world where there are lack of facilities and trained attendants are largely unavailable at point of delivery[9]. In sub Saharan Africa, where 1 in 16 women die of pregnancy and childbirth-related conditions, post-partum haemorrhage is estimated to account for between 25 - 30% of deaths [9]. Available data indicate that maternal mortality ratio is high in Enugu State. In 2010, it was reported that post-partum haemorrhage accounts for 18% of maternal mortality in Enugu with figures ranging from 772 to 998 per 100,000 [10, 11]. This is almost three times the figure (286 / 100,000) reported for the entire southeast zone in Nigeria[6]. The fact that midwives actively manage third stage of labour with the use of AMSTL as recommended is questionable because the incidence of post-partum haemorrhage keeps rising. It is against this background that the study was designed to evaluate midwives' knowledge and utilization of life saving skills for the prevention of post-partum haemorrhage in selected hospitals in Enugu Metropolis.

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Methods and Materials

Design

This study adopted a clinical based cross sectional descriptive and observational survey to gather information from respondents.

Area of the Study

The study was conducted in Enugu Metropolis, the capital city of Enugu state in South East Nigeria. Enugu is located in the tropical rainforest zone of Nigeria. Enugu metropolis covers an area of 85 square kilometers and has an estimated population of about 464,514 individuals. It lies within three local government areas namely: Enugu north, Enugu South and Enugu East. These local governments consist of the urban, semi-urban, rural areas and urban slums. Enugu East and Enugu South are mainly rural areas. Enugu North is an urban center. This work was carried out in eight selected hospitals across the three local government areas in Enugu metropolis. The hospitals were purposively selected because of the availability of midwives in the labour wards to conduct deliveries.

Population of the Study

The population of the study was one hundred and two (102) midwives working in the labour wards in the selected hospitals in Enugu Metropolis.

Instruments

The instruments used for data collection were a researcher developed questionnaire and an observational checklist based on guidelines on the use of life saving skills for the prevention of post-partum haemorrhage. The questionnaire consisted of four sections. Section A which elicit questions on the socio-demographic characteristics of the respondents. Section B generates information concerning respondents training on LSS. Section C measures the respondents' knowledge on active management of third stage of labour, while Section D elicit the pattern of utilization of LSS for the prevention of postpartum haemorrhage by the midwives. The observation checklist was made up of twenty items to elicit the procedures carried out by the midwives during labour and early postnatal care.

Procedure for Data collection and Ethical Consideration

Four research assistants were recruited and trained on the purpose of the study and how to collect data from the respondents for the study. The researchers and research assistants visited the head of each facility for self-introduction before the collection of data. Upon accepting to participate in the study, those who met the inclusion criteria were given a copy of the questionnaire, after the purpose of the study had been explained to them. The researchers and the research assistants administered the questionnaire to all respondents in the selected hospitals during morning, afternoon and night shifts. The copies of the questionnaire were retrieved on the spot. Administration of the questionnaire lasted for two weeks.

Management of third stage of labourwas also observed for a minimum of 4-6 deliveries in each hospitals making a total of 32 deliveries using the observational checklist on utilization of LSS by midwives. The observation was done by the researchers before administering the questionnaire during morning, afternoon and night shifts in the selected hospitals. Ethical clearance was sought from the ethical committee of Ministry of Health, Enugu by submitting summary of research protocol for ethical clearance with an introductory letter and which was granted. Also, confidentiality, voluntariness and free participation was granted to the participants.

Data Analysis

The raw data was coded before data entry to quantify its analysis. The coded data was analyzed with the Statistical Package for Social Sciences (SPSS) version-21. The data was analyzed and the results were presented using simple

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descriptive statistics of frequencies and percentages. The hypothesis was tested using inferential statistics of chi square and Pearson correlation co-efficient with the level of significance fixed at 0.05.

Results

Table 1: Respondents' demographic variables N=102

Demographic characteristics	Frequency/percentage
Age of respondents	
21 - 30 years	45 (44.1%)
31 - 40 years	36 (35.3%)
41 – 50 years	21 (20.6%)
Mean age 33±3	
Gender	
Female	86 (84.3%)
Male	16 (15.7%)
Highest level of education	
Diploma	73 (71.6%)
University	29(28.4%)
Professional certification	
Registered Midwife	21 (20.6%)
Registered nurse-midwife	81 (79.4%)

Data showed that 45(44.1%) respondents are within the age bracket 21-30 years, 36 (35.3%) between age 31-40 years, 20 (19.6%) while 21 (20.6%) are within 41-50 years. Few 16 (15.7%) of the respondents are males while majority 86 (84.3%) are females. Most of the respondents 73 (71.6%) attained diploma training while 29 (28.4%) attained university education. Twenty-one (20.6%) are registered midwife while 81 (79.4%) are registered nurse-midwife.

Table 2: Table showing the Respondent's training information on LSS N=102

Training information on LSS	Frequency(percentage)
Have you been trained on LSS?	
Yes	102(100%)
If Yes, Where did you get training on LSS?	66(64.7%)
Midwifery/nursing school	28(27.4%)
Training/workshops	18(17.6%)
Conferences	
What type of LSS have you received training on?	78(76.5%)
	8(7.8%)
Active management of third stage of labour	8(7.8%)
	8(7.8%)
Manual removal of placenta	
Manual removal of clots	16(15.6%)
Bimanual compression of uterus	33(32.4%)
When was the last training on LSS undertaken?	53(52%)
Within 6-12 months ago	
1 year ago	102(100%)
More than 2 years ago	
Do you use LSS for the prevention of PPH in the hospital?	
Yes	

Result showed that 102 (100%) of the respondents have been trained in Life saving skills. Above average, 66(64.7%) of the respondents acquired training from the midwifery/nursing schools.

Seventy-eight (76.5%) of the respondents were trained on AMTSL only while 24(23.5%) were trained on AMTSL.Few 16(15.7%) of the respondents were trained 6-12 months ago, while 53(52%) were trained more than a year ago.

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Table 3: Respondents knowledge of AMTSL

Knowledge variables	Responses
The first line uterotonic recommended for AMTSL is	
Oxytocin	54(52.9%)
Ergometrine	28(27.5%)
Misoprostol	14(13.7%)
Syntometrine	6(5.9%)
The recommended dose of the above chosen drug is	
5 IU	30(29.4%)
600 micrograms	62(60.8%)
10 IU	40(39.2%)
The recommended route of administration of the above chosen drug is	
Intravenous/Intramuscular	102(100%)
The following is (are) believed to be harmful practice(s) when performing AMTSL	
Massaging uterus before delivering the placenta	48(47.1%)
Applying controlled cord traction (CCT)	54(52.9%)
Both	8(7.8%)
Uterotonic administration should be done at	
Presentation of the anterior shoulder	86(84.3%)
Immediately after the delivery of the baby	8(7.8%)
Within how long should AMTSL be completed?	
1 minute, if relaxed within 3 minutes	8(7.8%)
5 minutes	86(84.3%)
5-10 minutes	8(7.8%)
As part of the components of AMTSL, uterine massage should be done within the interval of	
15 minutes	102(100%)
30 minutes	-
45 minutes	-
60 minutes	-

Fifty four (52.9%) of the respondents identified oxytocin as the first line uterotonic recommended for AMTSL while 48(47.1%) chose misoprostol. Thirty (29.4%) of the respondents chose 5 IU as the dose for the recommended first line uterotonic for AMTSL, 62(60.8%) indicated 600micrograms was the recommended dose. For the route of administration of the first line uterotonic, 102(100%) indicated intravenous/intramuscular route. Eighty six (84.3%) of the respondents said the uterotonic should be given at the presentation of the anterior shoulder. Result also showed that 8(7.8%) of the respondents said AMTSL should be completed within 1minute, if the uterus is relaxed within 3 minutes. All of the respondents chose 15 minutes as the interval when uterine massage should be done.

Table 4: Respondents' methods of utilization of LSS for the prevention of PPH

Methods of utilization of LSS for the prevention of PPH	Responses				Mean
	Always	Often	Rarely	Never	Mean
Uterotonic is given at the presentation of the anterior shoulder	81(79.4%)	21(20.6%)	-	-	3.79

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Uterotonic is given within one minute after the delivery of the baby					
Uterotonic is given immediately after the delivery of the placenta	81(79.4%)	21(20.6%)	-	-	3.79
The cord is clamped before the pulsation stops	-	-	21(20.6%)	81(79.4%)	1.21
The cord is clamped and cut immediately after the delivery of the baby	-	-	83(81.4%)	19(18.6%)	1.81
Placenta is allowed to separate and deliver spontaneously					
Placenta is delivered by controlled cord traction	102 (100%)	-	-	-	4.0
Empty the uterus immediately after expulsion of the placenta by massaging	-	21(20.6%)	21(20.6%)	60(58.8%)	1.62
Examination of placenta after delivery					
Baby is attached to breast immediately after delivery to initiate uterine contraction	102(100%)	-	-	-	4.0
Babies are put to breastfeed when the mother and baby have rested	60(58.8%)	42(41.2%)	-	-	3.59
	81(79.4%)	21(20.6%)	-	-	3.79
	81(79.4%)	21(20.6%)	-	-	3.79
		-	83(81.4%)	19(18.6%)	1.81

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Result showed that 81(79.4%) always administer uterotonic at the presentation of the anterior shoulder while 21(20.6%) often with mean score of 3.79. Eighty-one (79.4%) of the respondents always give uterotonic immediately after the delivery of the baby while 21(20.6%) often give with mean score of 3.79. Twenty one (20.6%) rarely give uterotonic immediately after the delivery of the placenta while 81(79.4%) never give with mean score of 1.21 For the timing of the clamping of the cord, 83(81.4%) rarely clamps the cord before the pulsation stops while 19(18.6%) never with mean score of 1.81. All (100%) of the respondents reported always clamping and cutting the cord immediately after the delivery of the baby with mean score of 4.0.

Table 5 showed the practice of Life saving skills on observation of the respondents. N=32

S/no	Observed practices of midwives on Life saving skills for the prevention of PPH (AMTSL)	Done correctly	Done incorrectly	Not done
1.	After delivering the first baby palpates the abdomen and rules out presence of another fetus before continuing.	-	-	32(100%)
2.	Administers 10 units of IM oxytocin. If oxytocin is not available, administers 0.5 mg of Ergometrine (NOT in preeclampsia/ eclamptic women) or Prostaglandins (NOT IV).	32(100%)	-	-
3.	(a). Done at the presentation of the anterior shoulder or	19(59.4%)	-	-
	(b) Done within one minute after delivery of the baby	13(40.6%)	-	-
4.	Clamps cord close to perineum	-	32(100%)	-
5.	Secures clamp on the cord and cuts the cord	32(100%)	-	-
6.	Places the other hand just above the woman's pubic bone to stabilize uterus for CCT.	12(37.5%)	-	20(62.5%)
7.	Waits for a strong uterine contraction (2-3 minutes)	19(59.4%)	13(40.6%)	-
8.	Doesn't not wait for a gush of blood	-	18(56.3%)	14(43.8%)

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		-	18(56.3%)	14(43.8%)
9.	During contraction, pulls the cord gently, firmly, and uniformly downward to deliver the placenta.	-	6(18.8%)	26(81.2%)
		-	-	32(100%)
10.	Supporting the placenta with both hands.	12(37.5%)	-	20(62.5%)
11.	Extracts the membranes gently with lateral movements.	-	13(40.6%)	19(59.4%)
12.	Immediately massages the uterine fundus.	6(18.8%)	13(40.6%)	13(40.6%)
13.	Ensures that the uterus does not relax after stopping uterine massage	-	-	32(100%)
14.	Checks to see if the tissues are complete.			
15.	Checks to see if the placenta is whole and intact.			
16.	Examines the woman for cervical or vaginal tears, or episiotomy to be repaired.			
17.	Estimates blood loss			

Result showed the observed practices of life saving skills for prevention of postpartum haemorrhage (AMTSL). Thirty two (100%) of the respondents did not palpate the uterus after the delivery of the first baby to rule out the presence of another fetus before continuing. All (100%) of the respondents administered uterotonics, 19(59.4%) administered uterotonic at the presentation of the anterior shoulder while 13(40.6%) administered uterotonic within one minute after the delivery of the baby. The result also showed that all (100%) of the respondents clamped the cord not close to the perineum immediately after the delivery of the baby. Eighteen (56.3%) placed the palms of the other hand correctly just above the woman's pubic bone to stabilize the uterus for CCT while 14(43.8%) did not place their palms correctly. All (100%) waited 2-3 minutes for strong uterine contraction, 12(37.5%) didn't wait for gush of blood on the perineum, 19(59.4%) applied CCT during contraction by pulling the cord gently, firmly and uniformly downward to the cord so as to prevent uterine inversion while 13(40.6%) did not do it correctly.

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Table 6: showing midwives' utilization of Life saving skills and their professional qualifications.

Chi-Square Tests					
	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.102[a]	1	.749		
Continuity Correction[b]	.012	1	.912		
Likelihood Ratio	.102	1	.749		
Fisher's Exact Test				.835	.455
Linear-by-Linear Association	.101	1	.750		
N of Valid Cases	102				
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 15.24. b. Computed only for 2x2 table					

The Chi-square test analysis on the utilization of LSS and their professional qualification shows (x^2=0.102, P>0.05).The result shows a P value of 0.749, which is greater than the critical P value of 0.05, Hence I reject the alternate hypothesis and state that there is no association between the utilization of life saving skill s by midwives and their professional qualifications.

Discussion

Most of the midwives have adequate knowledge of life saving skills for prevention of PPH as 76.5% have high knowledge and 23.5% have moderate knowledge. This is supported by[12] who reported that 66.7% of midwives under study have high knowledge of AMTSL and 28.2% have moderate knowledge of AMTSL. The findings from this study showed that 100% of the midwives have been trained on Life saving skills with 76.5% being trained on AMTSL. Most of the midwives have a good knowledge of the AMTSL procedures, 52.9% selected oxytocin as first line uterotonic while 47% selected misoprostol as the first line uterotonic, and 52.9% chose that the uterotonic should be given immediately after the delivery of the baby while 47.1% chose that it should be given at the presentation of the anterior shoulder. On the harmful practice when performing AMTSL, 47.1% chose applying CCT without perineal support, 7.8% chose uterine massage before placenta delivery while 45.1% chose both. This finding is in accordance with [13, 14] in their study which reported that 82.4% of midwives are knowledgeable about AMTSL. Based on these, good numbers of midwives are knowledgeable on the active management of third stage procedures. This procedure is in accordance with the facilitator guide for the lifesaving skills training manual for nurses/midwives.

Result also revealed that above average 64.7% of the midwives got their training in midwifery/nursing schools while 27.5% received their training through workshop/job training. From these, the number that got their Life saving skills training through in-service training are not up to half of the respondents which shows that the rate of in-service training is low as Lifesaving skills training in Nigeria is almost 10 years old. This is similar in line with [15, 16] study in Osun and Ekiti states who observed that majority of the respondents have never attended any competency based training programme in the area of safe

motherhood since their graduation. This is supported by study on midwives competency for implementation of AMSTL which reported that 51.2% of the midwives got their training in midwifery school.

The result on the utilization is quite revealing, on determination of the extent of utilization of life saving skills for prevention of PPH, from the respondents' responses 58.8% highly practice Lifesaving skills for prevention of PPH but on observation, 37.5% highly practice lifesaving skills for prevention of PPH. This shows that a wide gap exists between current evidence based standards and current levels of provider competence. Findings from this study showed that 79.4% of midwives said that they always give uterotonic within one minute after the delivery of the baby, 100% always clamp and cut the cord immediately after delivery of the baby, and 19.6% massage the uterus immediately after delivery while 79.4% examines the placenta after delivery. 100% deliver the placenta by controlled cord traction but was contradicted on observation as 79.3% allows the placenta to separate and deliver spontaneously. Result showed that 59.4% gave uterotonic at the presentation of the anterior shoulder, 40.6% gave uterotonic after the delivery of the baby, 100% clamped and cut the cord immediately, 18.8% massaged the uterus immediately while 81.3% did not massage the uterus, 59.4% delivered the placenta by controlled cord traction correctly while 40.6% did it incorrectly. 37.5% waited for a gush of blood on the perineum while 62.5% never waited for a gush of blood on the perineum. 37.5% checked to see if the tissues were complete while 62.5% did not do so, 40.6% checked to see if the placenta is whole and intact while 59.4% did not do so, 100% did not ensure that the uterus does not relax after stopping the uterine massage while none of the midwives estimated blood loss. This was supported by [16] in their study in Anambra State which reported that the respondents indicated high practice (78%) but on observation, only 41% high practice of AMTSL was recorded. Same was also observed in Benin; Ecuador, Jamaica and Rwanda by [17, 18]. From these findings, a good number of midwives practice some segments of the procedure like use of oxytocin as found by [19] and immediate cord clamp and cut; only very few practice the procedures holistically. They reported [20] 15% use of AMTSL in all deliveries in Egypt while [19] reported 25% use of AMTSL in 15 University teaching hospitals in 10 countries with no pattern of difference between developed and developing country. Also [13] stated weak performance (17.6%) in the correct practice of AMTSL by midwives and obstetricians in Benin. Administration of oxytocin (61.2%) and controlled cord traction (65.2%) were done by most of the professional but few massaged the uterus (34.8%). This finding was also contradicted by some studies like that of Rizvi, et.al., (2004) they noted 0.45% and 100% adherence on successful reduction of massive PPH by use of guideline and staff education, Luman, et.al., (2011) discovered 80% compliance with the management protocol for massive PPH in Pakistan while [21] reported wide use of AMTSL by midwives and obstetricians in the United Kingdom.

Results from this study showed a significant relationship, the calculated P value is 0.005 which is less than the critical value which is 0.05, as it may be due to the fact that the more the exposure to LSS trainings, the more informed an individual will be. This is supported by the fact that some of the midwives have received trainings on other types of LSS other than AMTSL. This is equally supported by [22] which reported that midwives who got additional on job training on AMSTL are seven times more likely to acquire competence on AMSTL than those who got from midwifery school alone. Also, findings from the study showed no significant relationship between the utilization of life saving skills by midwives and their professional qualifications. The calculated P value is 0.749 which is greater than the critical value

which is 0.05. This means that their professional qualifications does not have effect on the utilization of life saving skills but this contradicts the opinion that the more qualifications a midwife has, the more observant, conscious, and perfect ones practices becomes. This is supported by [22] which reported that there is no significant association between professional profile of the midwives and their competency level.

Conclusion

In conclusion, the study revealed that the importance of knowledge of LSS and practice AMTSL among midwives in the various hospitals where they work is one of the most effective interventions to prevent postpartum haemorrhage. It was therefore recommended that there should create policy support for the routine use of active management of third stage of labour as one of the most effective interventions to prevent postpartum haemorrhage, the government should promote community and facility based commitment for routine availability and use of active management of third stage of labour for all women during childbirth and carry out training follow-up, monitoring, and supervision and ensure adequate infrastructure, supplies, and utilities making available logistics system support like cold chain.

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REFERENCES

1. Magon, N. (2011). Partograph Revisited. *International Journal of Clinical Cases Investigations*, 3, 1–6.
2. World Health Organization (2015). The world report 2015: Making every mother and child count: Geneva. *The world health organization*: 62-65.
3. Joseph, K., Rouleau, J., Krammer, M., Young, D., Liston, R., &Basket,T. (2013) Investigation of an increase In postpartum haemorrhage In Canada. *British Journal of Obstetrics and Gynaecology*. 114(6): 751-759.
4. Lain, S., Roberts, C., Hadfield, R., Bell ,J., Morris, J.(2012). How accurate is the reporting of obstetric haemorrhage in hospital discharge data? A validation study. *Journal of Obstetrics and Gynaecology*. 48 (5): 481-4.
5. Margaret, A., Sandra, T., Diane, R.., & Clark, P. (edts). (2008). Life saving skills manual for midwives. USA
6. FMOHN (2011). Nigeria National guidelines on use of misoprostol, Federal Ministry of Health Abuja.
7. POPPHI (2011).The prevention of Post-Partum Haemorrhage Initiative
8. ICM/FIGO, 2013. International Confederation of Midwives and International Federation of Gynaecology and Obstetrics, (2013)
9. Claudio, G., Althabe, F., Belizan, J., &Buckens, P. (2014) Risk factors for postpartum haemorrhage in vaginal deliveries in a Latin American population. *Obstetrics Gynaecology*. 113 (6): 1313-1319.
10. Okeibunor, J.C, Onyeneho,N.G&Okonofua, F.E (2010). An intervention to improve the management of third stage of labour, knowledge

and correct use of misoprostol among primary health workers in OndoState. Retrieved from *http//whereonline.org/sites/default/files/reports/ondo/misofinalreport/2010*

11. Ezugwu E., Ezegwu , F.,&Okafor, I. (2015). Maternal Mortality in a Transitional Hospital in Enugu, Southeast Nigeria. *African Journal of Reproductive. Health* 13[4]:67-72

12. Ozumba, B. (2015). Improving Maternal health Nigeria Experience Tropical journal of gynaecology and obstetric 6 (4) 76-82.
13. Rational Pharmaceutical Management Plus Program. (2007). *Study of the Active Management ofthe Third Stage of Labor in Health Facilities: Results of a National Survey Conducted in Benin,2006*. Presented to the U.S. Agency for International Development by the Rational Pharmaceutical Management Plus Program. Arlington, VA: Management Sciences for Health.

14. Ujah AO, Aisen OA, Mutihir TT, Vanderjap DJ, Glew RTE and Uguru VE (2005): Factors contributing to maternal mortality in North-Central Nigeria. African Journal. Reproduction Health (5):27-40.
15. Okonofua, F. (2010). Knowledge and correct use of misoprostol among primary health workers in Edo State. Retrieved from *http://where-online.org/sites/default/files/reports/ Edo-Misofinal.report.2010*

16. Oyetunde M.O &Nkwonta, C.A (2014). Quality issues in midwifery: a critical analysis of midwifery in Nigeria within the context of ICM global standards
17. Harvey, S.A., Ayabaca, P., Bucagu, M. 2004. Skilled birth attendant competence: an initial assessment in four countries, and implications for the Safe Motherhood movement. Int J Gynaecol Obstet. 87(2):203-10.
18. Harvey, S.A, Blandón, Y.C., McCaw-Binns, A., Sandino, I., Urbina, L., et.al., the Nicaraguan maternal and neonatal health quality improvement group. 2007. Are skilled birth attendants really skilled? A measurement method, some disturbing results and a potential way forward. Bull World Health Organ. October; 85(10): 783–790.
19. Festin, M.R., Lumbiganon, P., Tolosa, J.E., Finney, K.A., Ba-Thike, K., Chipato, T., et al. 2003. International survey on variations in practice of the management of the third stage of labour. Bull World Health Organ. 81:286–91.
20. Cherine, M., Khalil, K., Hassanein, N., Sholkamy, H., Breebaart, M., &Elnoury, A. (2014). Management of the third stage of labor in an Egyptian teaching hospital. *Internal Journal Gynaecology Obstetrics.*87:54–8.

21. Farrare, D., Tuffnell, D., Airey, R., Duley, L., 2010. Care during the third stage of labour: a post survey of UK midwives and obstetricians. Biomedical central pregnancy childbirth. 10: 23
22. Slaton, C., Armbruster, D., Knight, R. 2009. Use of active management of the third stage of labour in seven developing countries. Bulletin, world health organization. 87(3): 207-215