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Research Article

Practices of Emergency Obstetrics Care among Midwives in Maternity Unit of Two Government Hospitals in Enugu North Local Government Area

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Abstract

This study was carried out to determine the practice of emergency obstetric care among midwives in maternity unit of two government hospitals in Enugu North Local Government Area. The objectives of the study was aimed at assessing the level of knowledge of midwives about Emergency Obstetric care, their practice of EMOC, factors affecting the practice of EMOC and ways of improving the practice of emergency obstetric care. Descriptive survey was used. The population for the study was 66 midwives and sample size was 57 midwifes using Yaro Yamen formula. The instrument for data collection was questionnaire. The data presentation and analysis were done using frequency tables, percentage and pie chart. The major findings of the study revealed that midwives of two government hospitals of Enugu north L.G.A, Enugu State had an average knowledge of EMOC while their practice of EMOC was poor. Shortage of competent trained staff was identified as factor affecting the practice of EMOC and lifesaving skills training was identified as way of improving the practice of emergency obstetric care. Hence the researcher recommended that ministry of health should conduct seminars and workshop on 'emergency obstetric care as well as training in life saving skills for midwives to improve their knowledge and practice of emergency obstetric care.

Keywords: *Practices; Emergency; Obstetrics Care; Midwives*

Introduction

From time immemorial, complications arising from pregnancy, childbirth and postpartum are not uncommon. Most health professionals in the hospitals of the urban and rural areas encounter woman with obstetrics' complications or emergencies in their day-to-day delivery of health care services. Ajayi [1] defined obstetrics emergencies as conditions arising as a result of pregnancy, labour and/or puerperium which may be detrimental to the life of the mother and/or fetus if immediate action is not taken to control or remove them.

Emergency obstetrics care is defined as an urgent skillful care given in an emergency to save lives of the mother and/or baby and to prevent complications [2].

WHO in 2009 views it as functions necessary to safe lives and they are called signal functions. Provision of emergency obstetrics care was adopted to reduce maternal mortality with emphasis on the need for all births to be attended by skilled birth attendants and that these services should both be available, accessible as well as of high quality [3].

The indicators used in monitoring the extent of availability and implementations of emergency obstetrics care were highlighted by WHO in 2009 [3]. For the basic services, the indicators include the following, administration of parenteral antibiotics, uterotonics' drugs, parenteral anticonvulsant for eclampsia as well as ability to perform manual removal of placenta, perform assisted vaginal delivery and basic neonatal resuscitation. For comprehensive services, the above mentioned indicators and abilities to perform surgery and give blood transfusion are included.

Globally, of the 536,000 maternal deaths recorded in 2005 arising from obstetrics emergencies, developing countries accounted for over 99 percent. Of this figure, 50 percent of the death took place in Sub-Sahara Africa while Sub-Sahara Africa and South' Asia accounted for 84 percent of maternal deaths in the world.

Furthermore, about 10 countries account for about two-thirds, with India contributing 22 percent or 117, 000 deaths. Nigeria accounted for 10 percent of the deaths with 59, 000 maternal deaths. Nearly all these lives could be saved if affordable good quality emergency obstetrics care were available. Lifetime risk of dying from pregnancy-related causes in the developing world is one out of seven life births, and in the industrialized world, it is one out of seventy-six life births. In Niger Republic, it is one out of seven life births, the highest In the world. Nigeria is not much better with lifetime risk of one out of 13 live births. In Ireland the lifetime risk is one out of 47, 600 live births [4,5].

The steady increase of maternal deaths as a result of Obstetrics' emergencies may be attributed to factors affecting the management of Obstetrics emergencies. According to WHO and UNICEF [4,5], these factors include inadequate essential drugs and supplies, lack of adequate skill birth attendants (Doctors, Midwives and Nurse), insufficient equipment and inappropriate referral and communication systems. In the rural areas, access to skilled care and emergency Obstetrics' care are limited by the existence of multiple barriers linked to the health service organization and quality of care. There are three types of delays that can affect a woman's chances of surviving Obstetrics' emergency. The first two includes delay in deciding to seek cafe and delay in reaching a health. Care facility which reflects an underlying Socio- economic factor. The third delay which is delay in receiving medical attention while in health facility is within the control of health personnel [4,5].

It is widely accepted by International Experts that the route to safer motherhood lies not through expensive technologies but through Strengthening and upgrading' existing health System to provide essential elements of Obstetrics' care to all those in need. Appropriate lifesaving emergency Obstetrics' care Capabilities can be made available at each level of the health System. For example, Staff at a rural health post with basic emergency Obstetrics' care capabilities would not be expected to perform a caesarean Section, but would be expected to make a correct diagnosis, resuscitate and stabilize the patient and transfer her. Also, availability and accessibility of qualitative Obstetric emergency Service is one of the proven effective Strategy or way of improving' the practice of emergency Obstetric care, thus making pregnancy and child birth a safer one according to Scientific Analysis and Research in Africa (SARA) - Paper in 2006 [6].

Objectives of the Study

1. To assess the level of knowledge of midwives on emergency Obstetrics' care.
2. How do the midwives practice emergency Obstetric care?
3. What are factors affecting the practice of emergency obstetric care?
4. What are ways of improving the practice of emergency obstetric care?

Research Methodology

Research design

The design for this study is descriptive survey design. Descriptive design is employed in understanding the health problem through orderly collection, analysis and interpretation of data of current situation of event to arrive at a solution for the problem. The study design

was considered appropriate for use in this study which focuses on determining the knowledge and practice of EMOC among mid wives working in maternity unit of two government hospitals in Enugu North L.G.A.

Area of study

The areas of study are Poly Sub District Hospital Asata Enugu and Uwani Cottage Hospital Enugu. All in Enugu North Local Government Area of Enugu slate of Nigeria.

Population of the study

The population used for this study consists of 66 midwives of maternity units. That is 42 midwives from poly Sub-District hospital and 24 midwives from Uwani cottage hospital Enugu.

Sample and sampling technique: using Yaro Yamane's formula, the sample size for this study consists of 57 midwives of maternity units of poly Sub-District hospital Enugu and Uwani cottage hospital Enugu.

Yaro Yamane's formula n $= \frac{N}{(1+N(e)^2)}$

Where e = constant = 0.05

The sample size is 57 midwives out of 66.

$$\frac{66}{1+66(0.05)^2} = \frac{66}{1+66(0.0025)}$$

$$n = \frac{66}{1+0.165} = \frac{66}{1.165} = 56.652361 = 57$$

The sampling technique

This is' simple random sampling technique. In simple random sampling, every members of the population has equal chance of being selected as a member of the sample.

Instrument for data collection

The instrument for data collection was questionnaire. The researcher constructed it based on the research objectives. It contains close-ended questions to elicit opinion of respondents.

Validity of instrument for data collection

The researchers constructed the questionnaire based on research objectives and presented it to the project supervisor, who read it, made proper corrections and approved it for typing and distribution

Method of data collection

The researchers approached the Director of nursing service poly Sub-District hospital Asata Enugu and Metron-in-charge of Uwani cottage hospital Enugu to obtain permission. The questionnaires were distributed to 57 midwives randomly selected at different duty shifts comprising of only maternity units midwives. The filled questionnaires were collected immediately.

Method of data analysis

The method of data analysis in this study is based on the set objectives. The collected data were analyzed using frequencies and percentages.

Ethical considerations

The ethical consideration of the study includes confidentiality, respect for human dignity and justice.

Confidentiality; the respondents are assured that the information provided will not be used against them but merely for academic purpose.

Respect for human dignity; the subjects were assured of the right to self-determination that is the right of the subjects to voluntarily decide whether or not to participate in the study.

Justice; researcher adopted fair and non-discrimination in selection of subjects used in this study. Information collected from the subject during the course of the study was kept strictly confidential.

Data presentation and analysis

This chapter deals with the presentation and analysis of data forth is study. The data are presented using frequency tables and percentages as well as bar and pie charts.

S/N			
1	Age Distribution	Frequencies	Percentage
A	20 - 30 years	34	59.6%
B	31 - 40 years	9	15.8%
C	41 - 50 years	14	24.6%
D	51 - 59 years	-	-
	Total	57	100%
2	Professional qualification	Frequencies	Percentages
A	Staff nurse/Midwife	49	86%
B	B.N. Sc Holder	8	14%
C	Master/Doctorate Degree Holder	-	-
	Total	57	100%
3	Rank	Frequencies	Percentage
A	NO. II / NO. I	31	54.4%
B	SNO/PNO	6	10.5%
C	ACNO/CNO	18	31.6%
D	DDNS/DNS	2	3.5%
	Total	57	100%
4	Years of Services	Frequencies	Percentages
A	1 - 10 years	33	57.9%
B	11 - 20 years	16	28.1%
C	21 - 30 years	2	3.5%
D	31 - 35 years	6	10.5%
	Total	57	100%

Table 1: *Demographic data.*

The table one above showed that majority of the respondents 34 (59.6%) aged 20 - 30 years, 14 (24.6%) were 41 - 50 years, 9 (15.8%) were between 31 - 40 years and none aged between 51 - 59 years. It also revealed that staff Nurse/Midwife had highest percentage 49 (86%) followed by B.N Sc Holder 8 (14%) and none by Master/Doctorate Degree Holder. N0.1/N0.1 assumed the highest frequency 31 (54.4%) in ranks of the respondents, ACNO/CNC had 18 (31.6), SNO/PNO had 6 (10.5) and DDNS/DNS had 2 (3.5%). For years of services of the respondents, 1 - 10 years had the highest percentage 33 (57.9%) followed by 11 - 20 years 16 (28.1%), 31 - 35 years had 6 (10.5%) and those between 21 - 30 years of services had the lowest percentage 2 (3.5%).

Research question 1: What is the level of knowledge of the midwives on emergency obstetric care?

Questions 5, 6, 7, 8, 9 and 10 from the questionnaire help to answer this question.

S/N	Items	Frequency	Percentage
A	Yes	57	100%
B	No	-	-
	Total	57	100%

Table 2: *Number of respondents that have heard of emergency obstetric care (EMOC).*

Table 2 above showed that all the respondents 57 (100%) have heard of emergency obstetric care.

S/N	Response	Frequency	Percentage
A	Mass Media	2	3.5%
B	Health workers	47	82.5%
C	Medical Journals	'8	14%
D	Friends/Church	-	-
	Total	57	100%

Table 3: *Shows their sources of information on emergency obstetric care (EMOC).*

Majority of the midwives 47 (82.5%) heard about emergency obstetric care from health workers, 8 (14%) from medical journals, 2 (3.5%) from mass media and none heard it from friends/church.

S/N	Items	Frequency	Percentage
A	Care given in emergency- to save life.	6	10.5%
B	Urgent skillful care given in emergency to save lives of mother and/or baby	43	95.4%
C	Immediate attention -given to pregnancy, labour and puerperium	8	14%
	Total	57	100%

Table 4: *Respondents understanding of emergency obstetric care.*

Majority of the respondents 43(75.4%) from table 4 above knew the meaning of emergency obstetric care while others did not know the meaning.

S/N	Items	Frequency	Percentage
A	Obstructed labour /maternal distress	43	75.4%
B	Malaria/anemia	2	3.5%
C	Anemia/hypertension	8	14%
D	Diabetes/hyperemesis gravidarium	4	7%
	Total	57	100%

Table 5: *Examples of obstetric emergencies as given by the respondents.*

Table 5 above showed that greater number of the respondents 43 (75.4%) mentioned correct examples of obstetric emergencies, 8 (14%). claimed anemia/hypertension 4 (7%) suggested diabetes/hyperemesis gravidarium and 2 (3.5%) said malaria/anemia.

S/N	Response	Frequency	Percentage
A	Diazepam	6	10.5%
B	Magnesium sulphate	37	64.9%
C	Hydralazine	12	21.1%
D	Paraldehyde	2	3.5%
	Total	57	100%

Table 6: *Midwives response on the drug of choice in the treatment of eclamptic fit.*

Majority of the respondents 37 (64.9%) reported the drug of choice for the management of eclamptic fit is magnesium sulphate, 12 (21.1%) said hydralazine, 6 (10.5%) said diazepam- and 2 (3.5%) said paraldehyde as shown on the table 6 above. This shows that many of them know the correct drug used in the treatment of eclamptic fit

S/N	Response	Frequency	Percentage
A	Yes	12	21.1%
B	No	45	78.9%
	Total	57	100%

Table 7: *Number of respondents that have been trained on life saving skills.*

The table 7 above revealed that majority of the respondents 45(78.9%) have not been trained on life saving skills while only few 12(21.1%) had received training on life saving skills.

Research question 2: How da the midwives practice emergency obstetric care?

Question 11, 12, 13 and 14 from questionnaire help to answer this question.

S/N	Items	Frequency	Percentage
A	Basic and comprehensive EMOC services	47	42.7%
B	Conduct of labour in EMOC facilities	6	5.5%
C	Safe blood transfusion	8	7.3%
D	Provision of packages of life saving skills services	21	19.1%
E	Strengthening routine ANC services.	8	7.3%
F	Training of traditional birth attendants	7	6.4%
G	Focused ANC	43	11.8%

Table 8: *Respondent's ideas on the services of emergency obstetric care (EMOC).*

From table 8 above, 47 (42.7%) of respondents identified the services of EMOC as basic and comprehensive EMOC services, 21 (19.1%) pinpointed provision of packages of life saving skill services, 13 (11.8%) recommended focused ANC, 8 (7.3%) identified safe blood transfusion, 7 (6.4%) highlighted training of traditional birth attendance. Strengthening routine ANC services and conduct of labour in EMOC as identified by 8 (7.3%) and 6 (5.5%) of respondents respectively are wrong services of EMOC.

S/N	Response	Frequency	Percentage
A	Yes	27	47.4%
B	No	30	52.6%
	Total	57	100%

Table 9: *Respondents that have partaken in the delivery of emergency obstetric care (EMOC).*

Table 9 above showed that less than half of the respondents have partaken in the delivery of EMOC 27 (47.4%) while 30 (52.6%) have not delivered emergency obstetric care.

S/N	Items	Frequency	Percentage
A	Commencement of labour	20	35.1%
B	Second stage of labour	2	3.5%
C	4 cm cervical dilatation	33	57.9%
D	36 weeks of gestation	2	3.5%
	Total	57	100%

Table 10: *Response of midwives on commencement of partograph in an uncomplicated labour.*

From the above table 10, majority of the respondents 33 (57.9%) reported modified partograph in an uncomplicated labour is commenced at 4cm cervical dilatation which is correct, 20 (35.1%) said at the beginning of labour and 2 (3.5%) revealed second stage of labour and 36 weeks of gestation respectively.

S/N	Items/Response	Frequencies	
		Agreed	Disagreed
A	Partograph is a graphic Record of labour progress	57	
B	Partograph is divided into Personal data and labour- data	25	32
C	Cervical dilatation is marked by symbol (O)	35	22
D	Descent of fetal head is Marked by symbol (x)	3 7	20
E	Moderate contraction is Contractions less than 40 seconds	15	42

Table 11: *Respondents interpretation of partograph.*

Total correct response: 57 + 25 + 22 + 20 + 15 = 139

Total incorrect response: 0 + 32 + 35 + 37 + 42 = 1 4 6

$$\text{Average} = \frac{Total}{No\ of\ items}$$

Average for correct response = $\frac{139}{5}$ = 27.8

Average for incorrect responses = $\frac{146}{5}$ = 29.2

$$\text{Percentage} = \frac{Avarage}{Sample\ Size\ (57)}$$

$$\text{Percentage for correct response} = \frac{27.8}{57}\ x\ \frac{100}{1} = 48.8\%$$

Percentage for incorrect responses = $\frac{29.2}{57} x \frac{100}{1} = 57.2\%$

Degree = $\frac{Avarage}{57\ (Sample\ Size\ )} \times \frac{360}{1}$

Correct responses = 176%

Incorrect responses = 184%

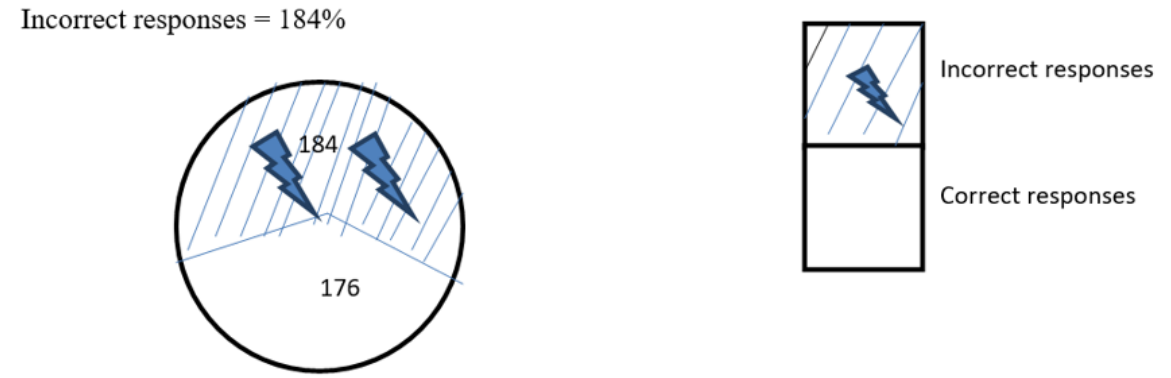

Figure 1: *Pie chart, showing responses of midwives on interpretation of partograph.*

Table 11 above highlighted the respondent's interpretation of partograph. Only 27.8 (48.8%) of respondents can interpret partograph correctly while majority 29.2 (51.2) cannot interpret partograph correctly.

Research questions 3: What are the factors affecting the practice of emergency obstetric care?

Question number 15 of the questionnaire was used to answer this question.

S/N	Response	Frequency	Percentage
A	Shortage of competent trained Staff	49	31.0%
B	Delay in decision to seek care	23	14.6%
C	Unavailability and inaccessibility of emergency obstetric care	23	14.6%
D	Lack of conducive environment/Low payment of salary	11	7%
E	Inadequate equipment and supplies	27	17%
F	Insufficient functioning referral and communication systems	23	14.6%
G	Others specify: poor remuneration of workers		1.3%

Table 12: *Respondents ideas on the factors affecting the practice of emergency obstetric care (EMOC).*

Majority of respondents 49 (31%) reported shortage of competent trained staff as a factor affecting the practice of EMOC. Inadequate equipment and supplies was identified by 27 (17%) respondents, 23 (14.6%) of respondents claimed delay in decision to seek care, unavailability and inaccessibility of EMOC as well as insufficient functioning referral and communication systems respectively. 11 (7%) of midwives pinpointed lack of conducive environment/low payment of salary and only 2 (1.3%) revealed poor remuneration of workers as a factor affecting the practice of emergency obstetric care.

Research question 4: what are the ways of improving the practice of emergency obstetric care (EMOC)?

Question 16 from questionnaire was used to answer this question.

S/N	Items	Frequency	Percentage
A	Community education and Involvement.	27	19.1%
B	Improving quality of EMOC through Life saving skill training	49	35.5%
C	Strengthening the referral system	25	18.1%
D	Provision of focused Antenatal care	25	18.1%
E	Expanding the roles of nonphysician health care providers	12	8.7%
F	Other specify		—

Table 13: *Answer of respondents on the ways of improving the practice of emergency obstetric care (EMOC).*

Table 13 above showed that majority of respondents 49 (35.5%) recommended lifesaving skills training as a way of improving the practice of EMOC. 27 (19.1%) respondent supported community education and involvement 25 (18.1%) suggested strengthening the referral system and provision of focused antenatal care respectively. Expanding the roles of non - physician health care providers was identified by 12 (8.7%) of respondents.

Discussion

The major findings of this study are discussed in accordance with research objectives and in relation to the finding from related studies.

Research question 1: what is the level of knowledge of mid wives on emergency obstetric care? Table 3 of the previous chapter revealed that 57 (100%) of midwives have heard of emergency obstetric care (EMOC). 43 (75.4%) of midwives knew and understand the meaning of EMOC while 14 (24.5%) of midwives did not know the meaning of EMOC. Also, 43 (75.4%) of midwives mentioned examples of obstetric emergencies. 14 (24.5%) identified minor and medical disorders of pregnancy as obstetric emergencies which are wrong. Only 37 {64.9%} stated that the drugs of choice in treatment of eclamptic fit is magnesium sulphate while 20 (35.1%) identified other drugs

This showed that midwives of Enugu North L. G. A of Enugu state had an above average knowledge of emergency obstetric care. This finding corresponds to the study undertaken by Kaye [7] in Soroti district Uganda which demonstrated that midwives have above average knowledge of EMOC.

The finding of this study disagrees with the result of study conducted by Kayode [8] in Osun and Ekiti state of south west Nigeria which reported that maternal unit staff 138 (91%) out of 52 staff had poor knowledge of EMOC.

The data analysis of table 7 of this study also identified that majority of the midwives 45 (78.8%) have not been training on life saving skills only 12 (21.1%) midwives have received L.S.S training this is in accordance with the study of Kayode [8] which revealed that only 29% of midwives have been trained in life saving skills (LSS).

Research question 2: How do the midwives practice emergency obstetric care?

From the data analysis of table 8 of the previous chapter, majority of midwives were familiar with the services of EMOC while only 14 (12.8%) were not. 8 (7.3%) of midwives preferred strengthening the routine ANC over provision of access to EMOC for all pregnant women who may need it.

This finding refuted the result of Kayode [8] in Osun and Ekiti state south west Nigeria which reported that 70% of midwives preferred strengthening routine ANC services in the health facilities over access to EMOC.

Also, result of table 9 showed that 27 (47.4%) of midwives have partaken in the delivery of EMOC while 30 (52.6%) of midwives have not delivered EMOC services. This is supported by the finding of Kayode [8] which reported that 22% of midwives had partaken in the delivery of basic EMOC services and 16% delivered comprehensive EMOC to clients.

Table 11 of this study also revealed that only 28 (48.8%) of midwives can fill and interpret parlograph correctly.

This finding is supported by the result of the study carried out by Kaye [7] in Soroti district Uganda which identified that 12 (33.3%) out of 36 midwives could fill or interpret partograph for identification and management of labour complications.

Research question 3: What are the factors affecting the practice of emergency obstetric care?

Table 12 of chapter four showed that 49 (31%) of midwives pinpointed shortage of competent trained staff as a factor affecting the practice of EMOC. 27 (17.1%), 23 (14.6%) and 2 (1.3%) highlighted inadequate equipment/supplies, delay in decision to seek care and poor remuneration of workers respectively as factors affecting the practice of EMOC. These findings are in line with the result of the study carried by Fawcus., *et al.* [9], (SARA) - paper [6] and Sergeant [10] which documented that shortage of competent staff trained to manage obstetric emergency was implicated in 36% of maternal death using focused group survey of community members. 70% maternal death in the urban and 87% in rural area occurred as a result of lack of appropriately trained staff (poor remuneration of workers) in Zimbabwe while inadequate treatment like insufficient antibiotics therapy by incompetent staff was also identified. SARA - paper [6] also reported that 52% of respondents said the decision to seek care will be made by their husband and 44% said another family member would make the decision.

Research question 4: What are' the ways of improving the practice of EMOC?

Table 13 of previous chapter showed that 27 (19.1%) of midwives reported community education and involvement, 49 (35.5%) said improving quality of EMOC through life saving skills training, 25 (18.1%) revealed Provision of focused ANC services and 12(8.7%0 claimed expanding the roles of non - physician health care providers as the ways of improving the practice of EMOC services.

The finding of White., *et al.* [10] supported this result which revealed that selected obstetric nurses at Karawa and Wasolo hospitals in rural North Western Zaria were trained to perform surgery including Cesarean section and surgical management of ruptured uterus with fatality rate of one percent (1%) over 18 months period.

Conclusion

The midwives in government hospitals of maternity unit of Enugu North L.G.A of Enugu State, Nigeria had an above average knowledge of emergency obstetric care (EMOC). Their practice of EMOC was poor and a good number of them 45 (78.9%) have not been trained in life saving skills. Staff nurse/mid wives was highest of the respondents 49 (86%) in professional qualification. Also, midwives between 1 to l0 years of services were the majority of the respondents 33 (57.9%) Only 27.8 (48.8%) of the midwives can interpret partograph correctly.

Greater number of the respondent 49 (31.0%) identified shortage of competent trained staff as a factor affecting the practice of EMOC while lifesaving skills training was also identified as the way of improving the practice of EMOC by majority of the respondents 49 (35.5%).

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