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Management and strategies utilized by nurses in the control of postpartum haemorrhage among pregnant women in UCTH

Opiah Margaret Mombel

Ph.D., FWACN, Department of Nursing Science, University of Calabar, Calabar
Email: mombail@yahoo.co.uk, mmopiah@gmail.com

Oyira Emilia James

Ph.D., STTI, FWACN, Department of Nursing Science, University of Calabar, Calabar
Email: emioyira@yahoo.com

Justin Agorye Ingwu

Department of Nursing Science, University of Nigeria, Enugu Campus
Email: Justin.ingwu@unn.edu.ng

Eze Margaret C.

Nursing and Midwifery Council of Nigeria Abuja
Email: megchieze@yahoo.com

Obute Pauline

Ph.D, Department of Nursing Ministry of Health Cross River States Nigeria
Email: paulineobute@yahoo.com

Abstract--This study sought to investigate the management and strategies utilized by nurses in the control of postpartum hemorrhage among pregnant women in UCTH. In order to successfully carry out the study, the following research questions and hypotheses were formulated. What is the proportion, proper management strategies utilized and the causes of postpartum hemorrhage among pregnant women in UCTH? The research instruments used in collecting data for analysis was in parts, records from the hospital and a four point likert scale questionnaire which was administered on 57 nurses used as sample for the study. Their responses were analyzed using appropriate statistic and the following results were obtained. Only 12 cases of postpartum hemorrhage were recorded out of 1952 cases of labour registered in 2017 in UCTH. Management strategies utilized by the nurses in the control of postpartum haemorrhage in

UCTH. Prolonged labour, disease conditions, multiparity with lax uterine muscles, retained product of conception and poor management of labour resulting in lacerations among others were identified as causes of postpartum haemorrhage. There was a significant relationship between management strategies utilized by the nurses in the control of postpartum haemorrhage in UCTH. It was recommended that Nurses should be sent to refresher courses on the management of postpartum haemorrhage and other pregnancy related complications as this will help them to increase their efficiency on proper handling of such cases as they occur in the hospital.

Keywords---management, strategies, utilization, nurses, control, postpartum haemorrhage, pregnant women, UCTH.

Introduction

Life in all societies especially in Nigeria or groups is sustained through procreation. The most dedicate phases of this process include pregnancy and childbirth which are quite sensitive and require extra care and attention to be given to a pregnant woman. Approximately 40% of pregnant women experience pregnancy related problem, and 15 percent of all pregnant women suffer long-term or life threatening complications such as postpartum haemorrhage, anaemia, infections and finally death. Nearly 525, 600 women die from complications of pregnancy and childbirth. (National Demographic Health Survey 2013).

Postpartum haemorrhage is defined as blood loss greater than 500ml in a vaginal delivery and greater than 100ml in a caesarean delivery (Wainscott 2016). Nurse on their own have a vital role to play in caring for the pregnant women. During antenatal period more emphasis should be laid on what the women should be expecting during pregnancy. The different stages of labour, the negative and positive part of it so that awareness will be created, a pregnant women needs a proper attention and care during labour in order to have a safe delivery without complication such as postpartum haemorrhage (Neim, 2014). However, some pregnant women believe that postpartum haemorrhage is cause by supernatural powers so that hospital management is not necessary, therefore they tend to go to churches, traditional birth attendants (TBAs) and traditional doctors for help which they still return to the hospital when their conditions are worst which might even lead to death. Perhaps, the depth and the extent of the problem showed that, pregnant women do not know the importance of going to the hospital for expert advice during antenatal clinic and as such the hospital cannot be a dependable one to the pregnant mothers.

Nevertheless, On the part of the government, much have been done by establishing clinics and hospital, and also recruiting nurses to care for the pregnant women. The government should therefore look into increasing the manpower in other to cope with the increasing number of patients in the hospital. Also equipment's and relevant instruments should be provided to the nurses to enable them to work effectively. The study is therefore being carried out as an

effort to help the health care system solve the problem of poor management strategies as utilized in the hospital to the pregnant women. The hospital should be a pleasant place where the staff are friendly and have positive relationship between the nurse and pregnant women as to prevent complications.

Statement of the problem

Observation shows that maternal death occur in more than half of pregnant women within 24 hours of delivery, mostly from excessive bleeding, Specifically there are estimated 14 million cases of pregnancy related haemorrhage every year at least 125,000 of these women bleed to death as a complication of third stage of labour (Shane,2011). Cases of interfered labour are bought to the hospital in a severe condition. These women must have spent more days with either the traditional birth attendant or spiritual churches pushing with an undilated cervix which results in vaginal lacerations, retained placenta lobe, bleeding resulting into anemia. Meanwhile, some pregnant women believe that postpartum haecorrhage is caused by supernatural powers so that hospital management is not necessary. However, several appeals have been made to the government by the researcher in this field to increase manpower by employing more nurses so that adequate attention will be given to the women. Furthermore, equipment should be supplied as to enhance quality management.

Relevance of the study

The study might be of benefit to the following: The pregnant women, the study might expose them to the risk factors and the possible causes of postpartum haemorrhage. It may also educate them on precautionary measures to adopt to forestall postpartum haemorrhage. To Nurses, study may expose them to modern and more effective management strategies applied in the control of postpartum haemorrhage. The researchers, it may create a data base and an avenue for sensitization of researchers to sharpen their interest in other pregnancy related complications. The government, the study might serve as a means of advocacy to government and the federal ministry of health to pay more attention to the training of some health personnel and funding activities such as safe motherhood initiative that focuses on the improvement of health of the pregnant mothers.

Methodology

The research design adopted for this study is survey design. The survey only describes a set of data but does not make judgment. The setting of this study is the University of Calabar Teaching hospital. It is a tertiary institution and a major referral centre in this locality, Calabar is the capital of cross river state, which is made up of eighteen (18) local government areas. It lies at latitude 4° North and Longitude 8° East. These units include child welfare unit, sick baby unit, family planning unit, special baby unit, antenatal, labour ward, postnatal ward, upper block, amenity ward gynae ward, antenatal ward and threatre.

The target population include all nurses and midwives working in University of Calabar teaching hospital making total of one hundred and forty two (142) perhaps, the total number of nurses in the accessible population was 57 as such,

there was no sampling techniques because the sample was small. The questionnaire was the instrument for data collection. The data collected was analyzed using descriptive statistic such as table, frequency and percentages. Pearson product moment correlation analysis was used to test the research hypothesis. Face and content validity of the instruments were determined by other specialist in the area of research to ascertain its validity. A trial testing was carried out with a sample of sixteen (16) nurses and midwives in general hospital Calabar, The instrument was re-administered to the same set of nurses after a time interval of one weak. Pearson product moment correlation was used to determine the relationship for each variable. The number of items associated with such variables and their reliability indices are presented in table 1.

Table 1
Test-retest reliability estimates of the management and strategies utilized by nurses in the control of postpartum haemorrhage

Variable	Number of items	Testing	X	SD	R _{xy}
Management strategies utilized by nurses	4	1 st	19.72	1.98	0.98
		2 nd	21.04	21.04	
Causes of Postpartum Haemorrhage	5	1 st	20.90	2.48	0.82
		2 nd	21.04	21.04	
Management of labour	2	1 st	19.82	2.88	0.74
		2 nd	18.78	1.90	
Management of postpartum haemorrhage	2	1 st	20.42	3.10	0.85
		2 nd	22.81	3.81	

The reliability coefficient ranges from 0.74-0.98
These values are considered high enough for the study.

Ethical issues

The researcher collected a letter well signed by the boards of Cross River State Ethical Committee for research to the Chief Medical Director/Head of nursing services (HNS) of the university of Calabar teaching hospital, for permission to carry out this study. The researcher also ensured that all information obtained from the women's case files were held in strict confident.

Results

Table 2
Socio- demographic data of respondent

Variable	Frequency	Percentage
Age: 20-29	14	24.6
years 30-39	10	17.5
years 40-49	12	21,1
years 50-59	11	19.3
years 60 and above	10	17.5
Total	57	100
Marital status	1	28.0

Single	6	50.9
Married	29	12.3
Divorced	7	8.8
Widowed	5	
Total	57	100
Professional qualification		
RN/RM	22	38.6
B.Sc	20	35.1
M.Sc	9	15.8
Other qualification	6	10.5
Total	57	100
Professional rank		
CNO	16	7.2
ACNO	8	11.9
SNO	7	16.7
NO 11	8	19.0
NO 11	3	21.4
Total	57	100
Wards		
Upper block	14	23.8
Antenatal clinic	11	28.6
Labour ward	17	23.8
Post natal ward	15	23.8
Total	57	100

Results for research questions

Research question 1

Is proper management strategies utilized by the nurses in UCTH?
 This research question is answered using the data presented in table 3. Here all respondents who strongly agreed and those who agreed were considered to have agreed while those disagreed and those who strongly disagreed were considered to have disagreed.

Table 3

Management and strategies utilized by the nurses in the control of postpartum haemorrhage in university of calabar teaching hospital

Statement	Agree	Disagree
Ergometrics O.Smg is given at the birth of anterior shoulder	41 (71.9)	16 (28.1)
20iu of oxytocin 1 litre of 2% dextrose water l.v at about 40 drops per minute is placenta	39 (68.4)	18 (31.6)
Rubbing of the uterus stimulate uterine contraction is carried out	40 (70.2)	17 (29.8)
Removal of blood clot after delivery aids uterine contraction thereby controlling bleeding	42 (73.7)	15 (26.3)

Note: Numbers in parenthesis are percentages

Based on these results it is concluded that proper management strategies are utilized by the nurses in university of calabar teaching hospital.

Research question 2

What are the causes of postpartum haemorrhage among pregnant women in University of Calabar Teaching Hospital? This research question is answered using the data presented in table 4. Here all respondents who strongly agreed and those who agreed were considered to have agreed while those who disagreed and those who strongly disagreed were considered to have disagreed.

Table 4
Causes of postpartum haemorrhage among pregnant women in University of Calabar Teaching Hospital

Statement	Agree	Disagree
Prolonged labour can cause postpartum haemorrhage	42(73.7)	15(26.4)
Disease condition such as raised blood pressure, blood disorders, pre-eclampsia and eclampsia predispose women to postpartum haemorrhage.	46 (80.7)	11 (19.3)
Multiparty with lax uterine muscles predispose women to postpartum haemorrhage	44 (77.2)	13 (22.8)
Retained products of conceptual causes haemorrhage Postpartum	43 (75.4)	14 (24.6)
Poor management of labour resulting in lacerations predispose women to postpartum haemorrhage	47 (82.5)	10 (17.5)

Note: Numbers in parentheses are percentages

Research question 3

What is the proportion of women who are affected by postpartum haemorrhage in UCTH? This research question is answered using the data presented in table 5.

Table 5
Proportion of women who were affected by postpartum haemorrhage in University of Calabar Teaching Hospital in 2017

Month	No. Women admitted in labour	No. Postpartum haemorrhage case	Percentage
January	151	1	0.7
February	140	1	0.7
March	100	0	0

April	177	2	1.1
June	207	1	0.5
July	158	0	0
August	190	1	0.5
September	178	4	2.2
October	178	2	1.1
November	186	0	0
December	162	0	0
	125	0	0"
Total	1952	12	6.8

Source: Records from UCTH

From these results, the highest numbers of 4 postpartum haemorrhage cases were recorded in August followed by 2 cases each in April and September respectively. However, a total of 1952 labour cases were recorded in 2017 with only 12 cases of postpartum haemorrhage. From these results it can be concluded that the number of postpartum haemorrhage cases recorded in UCTH in 2017 were few meaning that prevalence rate of postpartum haemorrhage is small in UCTH.

Results for research hypotheses

Hypothesis 1

There is no significant relationship between management strategies utilized by the nurses in the control of postpartum haemorrhage.

This hypothesis is tested using Pearson product moment correlation analysis as presented in table 6.

Table 6

Pearson product moment correlation analysis of the relationship between management strategies utilized by nurses and management postpartum haemorrhage in University of Calabar Teaching Hospital

Variable	$\sum x$	$\sum Y$
	$\sum x^2$	$\sum y^2$
Management strategies utilized by the nurses	382	2106
	3126	0.466
Management of postpartum haemorrhage	420	2112

Significant at 0.05, df 55, critical r= 0.261

Hypothesis 2

There is no significant relationship between management of labour and the management of postpartum haemorrhage in the University of Calabar Teaching Hospital. This hypothesis is tested using Pearson product moment correlation analysis as presented in table 7.

Table 7
Pearson product moment correlation analysis of the relationship between management of labour and the management of postpartum haemorrhage

Variable	Σx	ΣY
	Σx^2	Σy^2
Management of labour	371	2100
	3126	0.86
Management of postpartum haemorrhage	420	2112

Significant at 0.05, df=55, critical r= 0.261

Discussion of findings

Result have shown that there is a significant relationship between management and strategies utilized by the nurses in the control of postpartum haemorrhage in UCTH and manage of postpartum haemorrhage. The result showed that when proper management strategies are utilized by the nurses there is less risk of postpartum haemorrhage. This result is supported by Frazer and Cooper (2013) and Lewis & Drife (2011) who states that skills and techniques such as active management of third stage, proper antenatal preparation of the woman, use of uterotonic drugs, rubbing and packing of uterus can reduce the occurrence of postpartum haemorrhage.

Results on the causes of postpartum haemorrhage among pregnant women showed that prolonged labour, disease condition, multiparty with lax uterine muscles, retained product of conception and poor management of labour resulting in lacerations among others predisposes women to postpartum haemorrhage. This result is supported by Shane (2011) who identified the causes of postpartum haemorrhage to include uterine atony, retained placenta, vaginal or cervical lacerations and uterine rupture or inversion. Hogerzeil (2016) again supports this result by pointing out that postpartum haemorrhage can also be caused by retained parts of the placenta that escaped the attention of the birth attendant during delivery of the placenta. Cooper & Frazer (2013) again supports this result by identifying atonic uterus, retained placenta trauma and blood coagulation disorder and prolonged labour as some of the cause of postpartum haemorrhage.

The result also revealed that there was a significant relationship between management of labour and the management of postpartum haemorrhage in UCTH. The result revealed that when nurses manage labour properly it helps to reduce the occurrence of postpartum haemorrhage and its management Shane

(2011) supports this result by advising that nurses should provide relevant information especially on possible occurrence of bleeding. That the pregnant woman should be well educated on the risk factors and the causes of postpartum haemorrhage during antenatal clinic. The result is also supported by Prendiville (2015) and Lewis & Drife (2011), when they recommended that the use of uterotonic in active management and control cord traction for proper management of labour will prevent postpartum haemorrhage.

Result of findings revealed that only 12 cases of postpartum haemorrhage were recorded in UCTH in 2017. Considering the fact that this number is small it is concluded that proper management strategies have been utilized by the nurses in the controlled of postpartum haemorrhage in UCTH. This result is supported by Fraser and Cooper (2013) who stated the following. - That when active management of third stage of labour is employed, where prophylactic uterotonic, such as ergometric is given at the birth of the anterior shoulder and the delivery of the placenta controlled cord traction, the risk of postpartum haemorrhage is greatly reduce regardless of the assessment of obstetric risk status of the woman. Lewis & Orife (2011) stated that uterotonic such oxytocin intravenously or intramuscularly could be used by the nurse, the midwife to control bleeding during labour. Removal of blood clots, rubbing of the uterus and packing can also apply pressure on the bleeding point thereby controlling it. Tana (2014) also supported this result by stating that the risk of postpartum haemorrhage is greatly reduced among woman who participate in antenatal session and deliver in hospital where care is provided by skilled and competed health personnel.

Based on the result of findings it was concluded that nurses in UCTH educate pregnant women properly during antenatal clinic and also utilized proper management strategies in the control of postpartum haemorrhage. This is why they have registered only very few cases of postpartum haemorrhage in 2017. They also manage labour cases properly in the hospital which also reduced the risk of complications. The nurses also have a good knowledge of the causes of postpartum haemorrhage and try to prevent them which has also resulted in the registering of the few postpartum haemorrhage cases in 2017. Based on the findings of the study, the following recommendations have been made.

- Nurses should be sent to refresher courses on the management of postpartum haemorrhage and other pregnancy related complications as this will help them to increase their efficiency on proper handling of such cases as they occur in the hospital.
- Government should promulgate a law that guides the traditional birth attendants (TBAs) and spiritual churches practices of delivery so that they will know the limit of their practices.

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