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Structured teaching programme on antepartum hemorrhage among staff nurses

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Abstract
Antepartum hamemorrhage is an obstetrical emergency contributing to a significant amount of perinatal morbidity and mortality. Antepartum Hemorrhage is defined as bleeding from the vagina after 20 weeks. It occurs in 2% of pregnancies and an important cause of fetal and maternal death.30% of maternal deaths are caused by Antepartum hemorrhage of which 50% are associated with avoidable factors. Death from hemorrhage still remains a leading cause of maternal mortality. This study addresses the knowledge gap among staff nurses and their satisfaction they get from receiving these benefits. The survey is done with the sample size of 120. The data was collected by administering questionnaire and video assisted teaching programme. The study result shows that, 70% of the respondents had inadequate knowledge 30% moderate knowledge regarding causes and intervention of APH in the pre test. After administration of structured teaching program 20% of respondents had moderate knowledge and 80% the respondents had Adequate knowledge regarding causes and intervention of APH in the post test. The conclusion and suggestions are also given in this report for enhancing the knowledge level among staff nurses working in the maternity setup.

Keywords Antepartum hamemorrhage, staff nurses, teaching program

Introduction

Pregnancy is a unique experience of physiological phenomena in which a sexual union between a man and a women leads to the procreation of new life. This new life results in the creation of many new and unprecedented relationships. Hence the following newborn represents the synthesis of three distinct entities: the mother's relationship to the partner, the mother's relationship to the newborn as the representative of herself, and the mother's relationship to the newborn as a unique individual.

Antepartum hamemorrhage is an obstetrical emergency contributing to a significant amount of perinatal morbidity and mortality. Antepartum Hemorrhage is defined as bleeding from the vagina after 20 weeks. It occurs in 2% of pregnancies and an important cause of fetal and maternal death. 30% of maternal deaths are caused by Antepartum hemorrhage of which 50% are associated with avoidable factors. Death from hemorrhage still remains a leading cause of maternal mortality.

During the clinical experience, the investigator found that Antepartum hemorrhage is one of the leading causes of maternal and fetal mortality and morbidity and so many complications arise due to APH which demands special attention.

A cross sectional study was carried out on perinatal morbidity and mortality antepartum hemorrhage at Jawaharlal Institute of Post Graduate Medical Education and Research Pondicheri. Among 112 cases of antepartum hemorrhage were evaluated over a one year period. The finding showed that 46.4% of placenta previa, 25% abruption placenta, 28.6% unclassified antepartum haemorrhage where educating the pregnant mother about the importance of antenatal care and easy accessibility to quality antenatal services, helps to bring down perinatal morbidity and mortality associated with antepartum haemorrhage

A retrospective study was carried out in 2007 to find the demographic profile, type of APH, maternal and perinatal complications, over a period of one year. 226 women admitted with the diagnosis of APH. The results revealed that the incidence of APH was 3.01% Maternal and perinatal morbidity was very high with increased rates of anemia (100%), cesarean section rate (43.80%), post partum hemorrhage (27.84%) need of blood transfusion (78.77%), puerperal pyrexia (10.61%), coagulation failure (10.61%), low birth weight

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(83.18%) and birth asphyxia (12.5%). The maternal and perinatal mortality was very high 2.21% and 23.70% respectively.

Nurses play a vital role in antenatal care. Clinical assessment, critical thinking, decision making, and resource allocation must be quick and appropriate to increase the likelihood of positive outcome for mother, fetus and neonate. The researcher found that nurses are not taking appropriate measures in diagnosing and managing antepartum hemorrhage during clinical exposure. Nurses play an important role in reducing mortality and morbidity. A knowledgeable nurse is an asset to the Institution and the patient as well as health team. Hence it is essential that nurses should have adequate knowledge in the area they work. Hence the researcher felt the need to assess and enhance the knowledge of nurses through structured teaching programme.

Objectives
Primary objective
1. To assess the effectiveness of structured teaching programme on Antepartum Hemorrhage among staff nurses

Secondary Objective
1. To assess the existing level of knowledge of staff nurses regarding causes and interventions of ante partum hemorrhage.
2. To evaluate the effectiveness of structure teaching program regarding causes & interventions of Antepartum Haemorrhage among staff nurses.

Materials and methods
Research design
Cross sectional quantitative descriptive research design

Target Respondents
Staff Nurses working in Govt.Hospital Women and children, Egmore, Chennai-8.

Sample and sample size
A sample consists of the subset of a population selected to participate in a research study. 120 staff nurses who met the inclusion criteria formed the sample of the study.

Sampling Technique
Sampling refers to the process of selecting a portion of population to represent the entire population. In the present study, the sampling technique adopted was convenience sampling. The Investigator had done a survey to identify the samples and selected 120 samples of staff nurses based on sampling criteria. The investigator interviewed and questioned 120 staff nurses using questionnaire.

Description of the tool
Part A: Demographic variables
Part B: Structured questionnaire
Part C: Structured Teaching Program which consists of the following contents:
Definition of Antepartum Haemorrhage, Incidence,, Causes, Definition of placenta praevia, Causes & risk factors of

placenta praevia, Types of placenta parevia and diagnosis, Clinical Manifestation of placenta praevia, Diagnosis of Placenta praevia, Complications of placenta praevia, Management of placenta praevia, Definition of abruption placenta, Incidence of abruption placenta, Types of abruption placenta, Causes of abruption placenta, Clinical Manifestation of abruptio placenta, Diagnosis of abruptio placenta, Complications of abruptio placenta and Management of abruptio placenta

Scoring Procedure
Each item carries 1 mark for the correct answer and zero score for the wrong answer. The total score was 10 which is classified as follows in this study
- Adequate knowledge >75% Score
- Moderately Adequate knowledge 51-75% Score
- Inadequate knowledge<50%

Data collection procedure
Prior permission was obtained from the nursing Superintendent Govt.Hospital Women and Children, Egmore, Chennai-8. The data collection was carried out in the month of June 2015. The staff nurse working in maternity ward was selected by convenience sampling method. The study was conducted as follows.
1. On Day one, the purpose of the study was explained to the sample and informed consent was taken before starting the study
2. A pretest was conducted by administration of structured knowledge questionnaire.
3. On the same day the Structured Teaching Program was administered for 25 minutes using the Video assisted teaching.
4. Post test was conducted by using the same structured knowledge questionnaire after 7 days.

Data Analysis
The data were analyzed using descriptive and inferential statistical method. Mean, standard deviation test were used to determine the association between the variables.

Result

Table 1: Frequency and Percentage Distribution on Knowledge regarding APH knowledge of Respondents on APH in Pretest and Post test (n=120)

Knowledge Level	pre test		post test	
	F	%	F	%
Inadequate knowledge	84	70	0	0
Moderate knowledge	36	30	24	20
Adequate knowledge	0	0	96	80
Total	120	100	120	100

Depicts that, majority 70% of the respondents had inadequate knowledge, 30% moderate knowledge regarding causes and intervention of APH in the pre test. After administration of structured teaching program 20% of respondents had moderate knowledge and 80% the respondents had adequate knowledge regarding causes and intervention of APH in the post test.

Table 2: Mean, mean percentage and standard deviation for the pre test

S. No	Knowledge Aspects	No. of items	Max score	Mean	Mean%	Median	SD
1	Definition & Meaning	3	3	3.32	50.33	3	0.586
2	Etiology	1	1	4.58	50.9	4.5	1.02
3	Clinical manifestation	4	4	2.4	40	2	0.55
4	Diagnosis& Management	1	1	6	40	7.5	1.247
	Overall	10	10	16.96	47.1	14	2.173

Shows that the maximum mean percentage obtained by the sample is found in the aspect of Etiology (50.90%), followed by Definition & meaning (50.33%) and least mean percentage (40%) obtained in the aspect of Clinical manifestation and Diagnosis & management. The overall mean percentage obtained In the pre test was 47.1%.

Table 3: Mean, mean percentage and standard deviation for the post test

S. No	Knowledge Aspects	No. of items	Max score	Mean	Mean%	Median	SD
1	Definition & Meaning	3	3	5.23	87.11	5	0.763
2	Etiology	1	1	7.75	86.09	8	0.662
3	Clinical manifestation	4	4	5.27	87.8	5	0.777
4	Diagnosis& Management	1	1	13.14	87.6	15	1.329
	Overall	10	10	31.29	86.93	26	2.459

Shows that the maximum mean percentage obtained by the sample is found in the aspect of Definition & meaning (87.11%), followed by Clinical manifestation(87.8%), and Diagnosis & management(87.6%)and least mean percentage obtained in the aspect Etiology (86.09%), The overall mean percentage obtained In the post test was 86.93%.

Table 4: Comparison of pretest and post test knowledge scores among respondents regarding knowledge aspects of APH

S. No	Knowledge Aspects	Pre Test		Post Test		Mean Difference	t Value	DF
		Mean	SD	Mean	SD			
1	Definition & Meaning	3.32 0.586 5.23 0.763	0.586	5.23	0.763	1.91	21.685	99
2	Etiology	4.58	1.02	7.75	0.662	3.17	23.805	99
3	Clinical manifestation	2.4	0.55	5.27	0.777	2.87	23.733	99
4	Diagnosis& Management	6	1.247	13.14	1.329	7.14	27.128	99
	Overall	16.96	2.173	31.29	2.549	14.33	35.142	99

Comparison of pretest and post test knowledge scores among respondents regarding knowledge aspects of APH From the above table, it is evident that the obtained "t" value 35.142 is greater than that of the table value-0.05 level of significance. Therefore, "t" value is found to be significant. It means that there is a gain in the knowledge level of respondents regarding APH. This supports that structured teaching program on APH is effective in increasing the knowledge level of respondents.

Discussion
Knowledge level of staff nurses regarding the causes and intervention of APH
Majority 70% of the staff nurses had inadequate knowledge and 30% had moderate knowledge regarding causes and intervention of APH in the pretest. After administration of the structured teaching program 20% of the subjects had moderate knowledge and 80% had adequate knowledge regarding causes and intervention of APH in the post test.

Comparison of the pre test and post-test knowledge score of staff nurses
The overall mean pretest knowledge score obtained by the staff nurses was 16.96(47.1%) with standard deviation 2.173. The overall post test mean knowledge score obtained by the staff nurses was 31.29(86.93%) with standard deviation 2.549 the total difference in the mean of overall knowledge score was 14.33 with the "t" value of 35.142 and found to be significant at the level of p<0.01.

Association between knowledge scores of staff nurses and selected demographic variables
It was evident that there was a statistically significant association between the knowledge scores of the staff nurses with demographic variables such as age, marital status, professional qualification, area of work, experience in maternity ward, in-service education and source of information at the probability level of p<0.05. Hence the research hypothesis stated that there will be significant association between the knowledge scores of staff nurses regarding the causes and intervention of APH with selected demographic variable was accepted.

Directions for future research
- A similar study on a larger scale among staff nurses can be carried out to generalize the findings
- All the health care settings who provide maternity care should conduct in-service education programs on management of APH at all the level of health facilities.
- A comparative study can be conducted on knowledge and practice between two hospitals.
- Similar study can be undertaken by using other modalities like self-instructional module.
- Different teaching strategies can be used to educate the staff nurses regarding Antepartum Hemorrhage

Conclusion
The structured teaching program was more effective in improving the knowledge of staff nurses on Antepartum Hemorrhage, which helps to reduce the maternal morbidity and mortality. As of few research studies have been done on

importance of updating knowledge regarding antepartum hemorrhage and its management; the present study could encourage further research studies to prepare self learning modules among pregnant women.

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