



Research Paper

## A Study to Assess the Effectiveness of Structured Teaching Programme on Management of Postpartum Haemorrhage among the Nursing Officers at Sri Manakula Vinayagar Medical College and Hospital, Puducherry

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### ABSTRACT

Severe vaginal bleeding after childbirth is called postpartum haemorrhage (PPH). A fatal outcome is possible due to this acute ailment. Dizziness, feeling weak and blurred vision is other symptoms of postpartum haemorrhage. After giving birth or for up to 12 weeks postpartum, PPH can happen. Early discovery and quick medical attention can result in a full recovery. Maternal mortality is most commonly caused by postpartum haemorrhage (PPH). Every woman who carries a pregnancy past the 20-week mark is at risk for PPH and it's after effects. PPH continues to be a major factor in maternal death overseas, despite the fact that rates of maternal mortality have significantly decreased in the industrialised world.

**Keywords:** Postpartum haemorrhage, management, vaginal bleeding.

### I. INTRODUCTION

Postpartum haemorrhage is defined as the excessive bleeding following the delivery, more than 500 ml in vaginal delivery and more than 1000 ml in caesarean delivery accompanied by signs and symptoms of hypovolemia. Visual estimation of blood loss is inaccurate, therefore clinical signs and symptoms must be included in assessment of PPH. The incidence widely varies mainly because of lack of uniformity in the criteria used in definition.

The incidence is about 4-6% of all deliveries.

Primary (early) and secondary (late). Primary haemorrhage occurs within 24 hours following the birth of the baby. Secondary haemorrhage is occurring beyond 24 hours within puerperium also called late puerperal bleeding.

### NEED FOR THE STUDY

Health is a comprehensive state of physical, social, and should be a fundamental human right, not merely the absence of illness and disability. Every woman has excitement and expectation during her pregnancy and labour. Uncertain memories and experiences from her childbirth stay with her for the rest of her life. Pregnancy and delivery complications cause over 500,000 women to pass away each year in the world.

### STATEMENT OF PROBLEM:

A Study to Assess the Effectiveness of Structured Teaching Programme on Management of Postpartum Haemorrhage among the Nursing Officers at SMVMCH, Puducherry.

### OBJECTIVES:

1. To assess the level of knowledge in the management of postpartum haemorrhage among nursing officer.
2. To evaluate the effectiveness of structured teaching programme in the management of postpartum haemorrhage among nursing officer.
3. To find out the association between the pre-test knowledge among the nursing officer in the management of postpartum haemorrhage with their selected demographic variables.

## **HYPOTHESIS**

H1: There will be significant difference between pre-test knowledge scores in the management of postpartum haemorrhage among the nursing officers.

H2: There will be significant association between the pre-test knowledge scores in the management of post-partum haemorrhage with their selected demographic variables among nursing officers.

## **II. REVIEW OF LITERATURE**

Review of literature serves as evidence and essential background for any research. It is to ascertain what is already known in relation to a problem of interest.

Review of literature is a step in the development of a research project. It helps the investigator to develop deeper insight into the problem and gain information on problem and on what has been done before. It provides basis for future investigation justified the need for replication, throws light on the feasibility of the study to another with a hope to establish a comprehensive body of scientific knowledge, from which valid and persistent theories may be developed.

Review of literature is a critical summary of research of a people of interest. Generally prepare to put a research problem in context are to identify gaps and weakness in prior studies as to justify a new satisfaction.

### **REVIEW RELATED TO MANAGEMENT OF POSTPARTUM HAEMORRHAGE**

**Xiu quan zhang et al (2020)** conducted a study on The Emergent Pelvic Artery Embolization in the Management of Postpartum Hemorrhage: A Systematic Review and Meta-analysis the aim is To evaluate its efficiency, safety, complications, and outcomes, we conducted a systematic review and meta-analysis of PAE for PPH in the literature .The Medline, the database of abstract of reviews, the index to allied health literature, and the Chinese database Sino-Med were searched on March 31, 2020, for studies on PAE for PPH. The data for PAE indication, agents, arteries, success rate, complications, and outcomes were extracted and syncretized for meta-analysis. From 1075 identified articles, 113 abstracts or full articles were retrieved and 43 studies were finally identified as meeting the including criteria. The results demonstrated that the indications for PAE were as follows: uterine atony, placental abnormality, delivery tract injury, disseminated intravascular coagulation, arteriovenous malformation, and vaginal hematoma. The embolization agents mostly in order were gelatin sponge particles, polyvinyl alcohol particles, Gelfoam, *N*-butyl cyanoacrylate, microcoil, and glue; for arteries, they were mostly uterine artery and internal iliac artery. The clinical success rate was 90.5%, whereas the technical success rate was 99.3%. The most common complications of PAE were postembolization syndrome and menstrual abnormality.

**Deepshikha et.al., (2018)** has conducted a non-experimental study on assessment of knowledge and skills of GNM students regarding active management of third stage of labour at Haryana. Totally 100 GNM students were selected by purposive sampling technique. Data collected by using structured knowledge questionnaire and observational checklist using Statistical software package -20 analysis. The study results reveals that 92% of the GNM students had below average level of knowledge and 100% were incompetent to perform active management of third stage of labour.

**Sam Ononge et.al., (2016)** has conducted a prospective cohort study on Incidence and risk factors for Postpartum haemorrhage at six health facilities in Uganda. Totally 1188 women were experienced Postpartum haemorrhage sample was selected by using cluster- randomized trial. Data was collected by interview method administered questionnaires and analysis done. The study reveals that out of 1188 women 107 women had PPH and 14 had severe PPH, 31 women did not receive auterotonic drugs and 82 women received additional uterotonic drugs, 78 women got misoprostol. Caesarean section are multiple pregnancy, foetal macrosomia  $\geq 4000$  and HIV positive sero-status are risk factors of severe PPH. Identifying the risk factors are extra vigilance during labour and preparedness for PPH management.

## **III. METHODOLOGY**

Methodology is the most important part of any research study, which enables the researcher to from the blue print for the study undertaken. It investigate about and the way of obtaining, organizing and analysing data. Methodology studies address the development, validation and evaluation research tools or methods.

This chapter includes a description of research approach, research design, setting of the study, population sample and sample size, sampling techniques, sampling criteria, instruments, validity and reliability pilot study, method of collection of data, plan for data analysis of the study. The present study is aimed to assess the effectiveness of symptoms on management of postpartum among nursing officers at SMVMCH, Puducherry.

## **RESEARCH APPROACH**

The quantitative research approach is selected for the present study.

## **RESEARCH DESIGN**

Pre experimental one group pre & post-test design was adopted in this study.

## **STUDY SETTING**

The Study was conducted in Sri Manakula Vinayagar Medical College and Hospital, Puducherry.

## **POPULATION**

In this study, the population includes all the nursing officers working in SMVMCH.

## **SAMPLE**

The sample for the present study was nursing officers who fulfil the inclusion criteria.

## **SAMPLE SIZE**

The sample size for the present consists of 50 nursing officers.

## **SAMPLING TECHNIQUE**

Simple random sampling technique was used for selecting the sample.

## **CRITERIA FOR SAMPLE SELECTION**

### **INCLUSION CRITERIA**

#### **The nursing officers who are**

- Willing to participate in this study.
- both male & female
- working in SMVMCH in irrespective of wards
- B.sc & M.sc nursing

### **EXCLUSION CRITERIA**

#### **The nursing officers who are**

- physical illness
- Nursing officers at administration level
- GNM/ANM

## **ORGANISATION OF THE DATA**

TABLE – I: Frequency and percentage wise distribution of demographic variables.

TABLE – II: Frequency and percentage wise distribution of the level of management of postpartum haemorrhage

TABLE – III: Mean and Standard deviation of the level of management of postpartum haemorrhage among the nursing officers

TABLE – IV: Association on assess the knowledge of the level of postpartum haemorrhage among the nursing officer.

**Table 1: Frequency and percentage wise distribution of demographic variables[N=50]**

S.NO	DEMOGRAPHIC DATA	FREQUENCY	PERCENTAGE
1.	<b>Age</b>		
	a) 20-30 years	42	84
	b) 31-40 years	8	16
	c) 41- 50 years	0	0
	d) 51-60 years	0	0
2.	<b>Gender</b>		

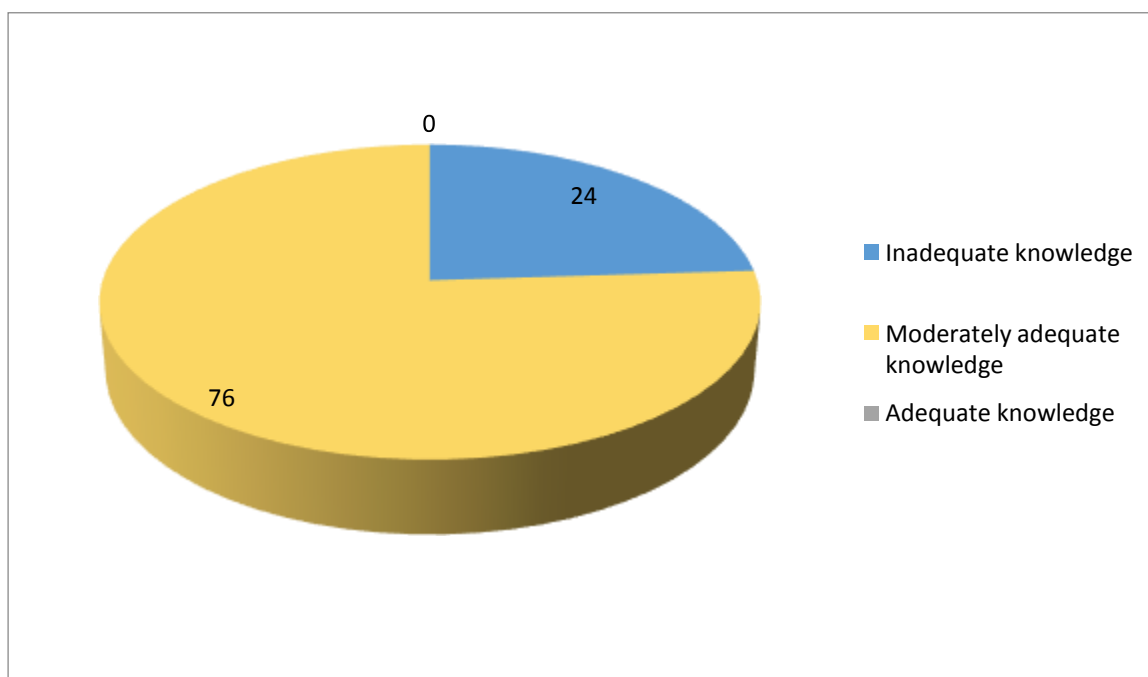
	a) Male	10	20
	b) Female	40	80
<b>3.</b>	<b>Religion</b>		
	a) Hindu	40	80
	b) Christian	8	16
	c) Muslim	2	4
	d) Others	0	0
<b>4.</b>	<b>Educational status</b>		
	a) Bsc nursing	48	96
	b) Post basic BSC	0	0
	c) Msc nursing	2	4
	d) Dipoloma nursing	0	0
<b>5.</b>	<b>Year of working experience</b>		
	a) 1-2 years	28	56
	b) 2-3 years	4	8
	c) 3-4 years	5	10
	d) above 5 years	13	26
<b>6.</b>	<b>Seminars, conferences</b>		
	a) Yes	21	42
	b) No	29	58
<b>7.</b>	<b>Type of living place</b>		
	a) rural	43	86
	b) urban	7	14
<b>8.</b>	<b>Years of experience in labor room</b>		
	a) less than 1 year	35	70
	b) 2- 3 years	15	30
	c) 3- 5 years	0	0
	d) more than 5 years	0	0
<b>9</b>	<b>Marital status</b>		
	a) married	21	42
	b) unmarried	29	58
	c) divorced	0	0
	d) Widow.	0	0
<b>10.</b>	<b>Monthly income</b>		
	a) 10,000 INR	6	12
	b) 10,000-15,000 INR	30	60
	c) 15,000-20,000 INR	8	16
	d) more than 20,000 INR	6	12

**TABLE – II: Frequency and percentage wise distribution of the level of management of postpartum haemorrhage [N= 50]**

SCORING INTERPRETATION	FREQUENCY	PERCENTAGE
Inadequate knowledge	12	24
Moderate adequate knowledge	38	76
Adequate knowledge	0	0

**Table II:** Shows that Frequency and percentage wise distribution of the level of management of postpartum haemorrhage

Many of the nursing officers 12 (24%) had Inadequate level of knowledge and 38(76%) had moderate adequate of knowledge and the mean and standard deviation the level of management of postpartum haemorrhage is (10.54±2.92) respectively.



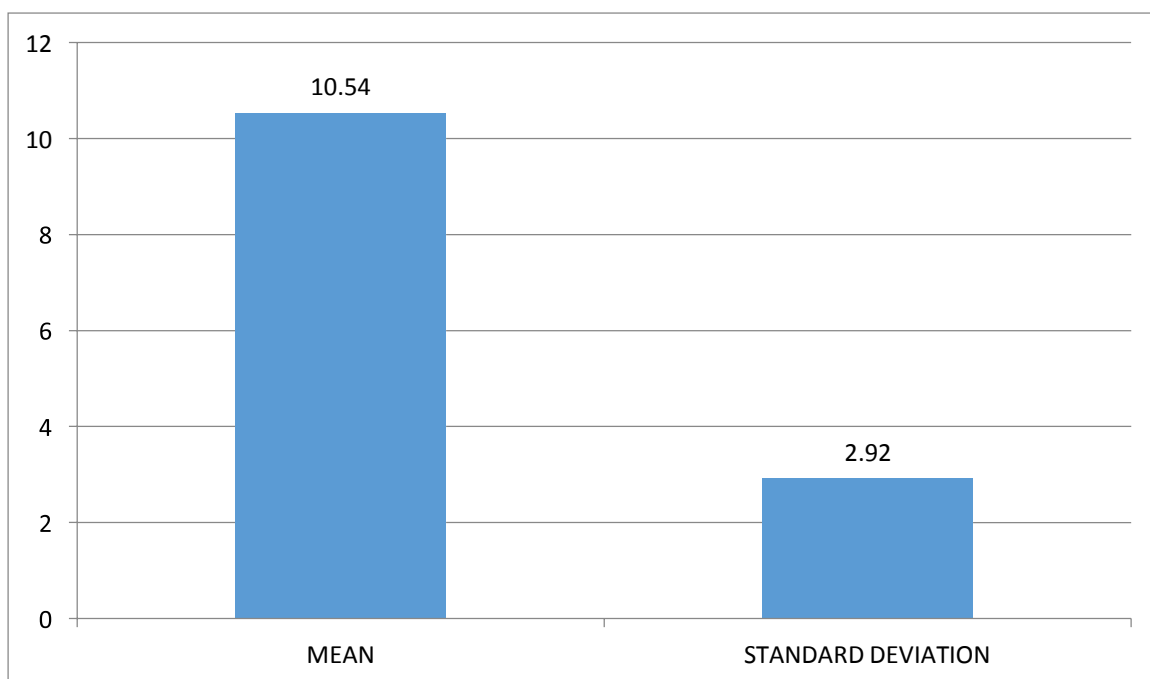
**Fig: 3 pie diagram Frequency and percentage wise distribution of the level of management of postpartum haemorrhage**

**TABLE – III: Mean and Standard deviation of the level of management of postpartum haemorrhage among the nursing officers [N = 50]**

MEAN	STANDARD DEVIATION
10.54	2.92

**Table III:** Shows that area wise mean and standard deviation about the level management of postpartum haemorrhage among the nursing officers

The findings reveal that mean (10.54) and standard deviation (2.92) of level management of postpartum haemorrhage among the nursing officers

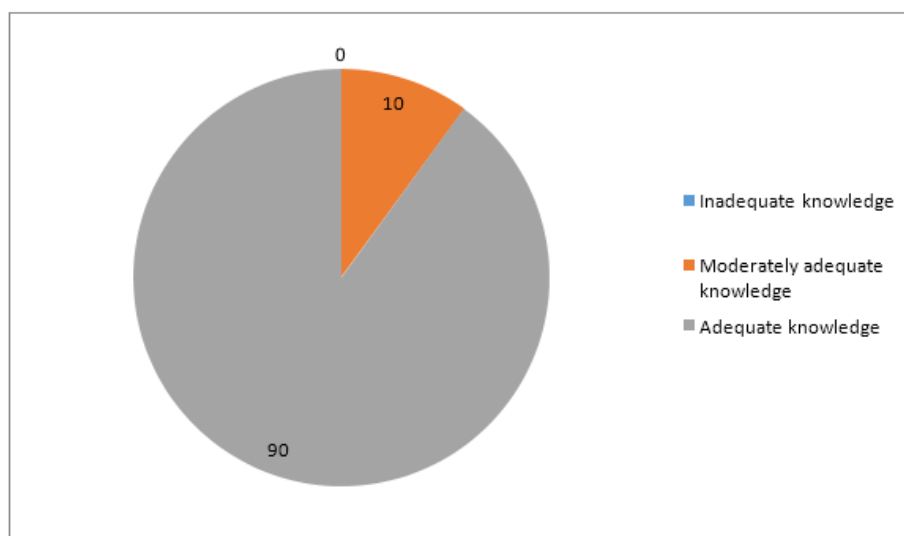


**Fig: 4** bar diagram mean and Standard deviation of the level of management of postpartum haemorrhage among the nursing officers

**TABLE – II:** Frequency and percentage wise distribution of structured teaching programme on management of postpartum haemorrhage among the nursing officers [N= 50]

SCORING INTERPRETATION	FREQUENCY	PERCENTAGE
Inadequate knowledge	0	0
Moderately adequate knowledge	5	10
Adequate knowledge	45	90

**Table II:** Shows that Frequency and percentage wise distribution of structured teaching programme on management of postpartum haemorrhage among the nursing officers



**Fig: 5** pie diagram frequency and percentage wise distribution of structured teaching programme on management of postpartum haemorrhage among the nursing officers

**TABLE – IV: Association on assess the knowledge of the structured teaching programme on management postpartum haemorrhage among the nursing officers [N = 50]**

S.NO	DEMOGRAPHIC DATA	Inadequate		Moderate		X <sup>2</sup>
		N	%	N	%	
<b>1.</b>	<b>Age</b>					X <sup>2</sup> = <b>.691</b> Df=1 P=.4060
	e) 20-30 years	11	22	31	62	
	f) 31-40 years	1	2	7	14	
	g) 41- 50 years	0	0	0	0	
	h) 51-60 years	0	0	0	0	
<b>2.</b>	<b>Gender</b>					X <sup>2</sup> = <b>1.754</b> Df=1 P=.1853
	c) Male	4	8	6	12	
	d) Female	8	16	32	64	
<b>3.</b>	<b>Religion</b>					X <sup>2</sup> = <b>1.891</b> Df=2 P=.3884
	e) Hindu	8	16	32	64	
	f) Christian	3	6	5	10	
	g) Muslim	1	2	1	2	
	h) Others	0	0	0	0	
<b>4.</b>	<b>Educational status</b>					X <sup>2</sup> = <b>.658</b> Df=1 P=.4173
	e) Bsc nursing	12	24	36	72	
	f) Post basic BSC	0	0	0	0	
	g) Msc nursing	0	0	2	4	
	h) Dipoloma nursing	0	0	0	0	
<b>5.</b>	<b>Year of working experience</b>					X <sup>2</sup> = <b>1.908</b> Df=3 P=.5917
	e) 1-2 years	8	16	20	40	
	f) 2-3 years	1	2	3	6	
	g) 3-4 years	0	0	5	10	
	h) above 5 years	3	6	10	20	
<b>6.</b>	<b>Seminars,conferences</b>					X <sup>2</sup> = <b>1.729</b> Df=1 P=.1885
	c) Yes	7	14	14	28	
	d) No	5	10	24	48	
<b>7.</b>	<b>Type of living place</b>					X <sup>2</sup> = <b>.093</b> Df=1 P=.7601
	c) rural	10	20	33	66	
	d) urban	2	4	5	10	
<b>8.</b>	<b>Years of experience in labor room</b>					X <sup>2</sup> = <b>6.036</b> Df=1
	e) less than 1 year	5	10	30	60	

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	f) 2-3 years	7	14	8	16	P=.0140*
	g) 3-5 years		0		0	
	h) more than 5 years		0		0	
<b>9</b>	<b>Marital status</b>					X <sup>2</sup> =1.729 Df=1 P=.1885
	e) married	7	14	14	28	
	f) unmarried	5	10	24	48	
	g) divorced		0		0	
	h) widow.		0		0	
<b>10</b>	<b>Monthly income</b>					X <sup>2</sup> =1.160 Df=3 P=.7625
	e) 10,000 INR	2	4	4	8	
	f) 10,000-15,000 INR	8	16	22	44	
	g) 15,000-20,000 INR	1	2	7	14	
	h) more than 20,000 INR	1	2	5	10	

*p<0.05, significant and \*\*-p<0.001, highly significant*

**Table IV:** Shows that association on assess the effectiveness of structured teaching programme on management of postpartum haemorrhage among the nursing officer at Sri Manakulavinayagar medical college and hospital. The chi square reveals that it is statistically association Years of experience in labor room significant \*-p<0.05, others are belongs to non-significance.

#### IV. RESULTS

The study result shows that out of the People who were interviewed, Majority of the People 42(84%) were in the age group above 20-30 years. Most of the People 40(80%) were female Most of the people 40 (80%) belongs to Hindu religion. Most of them, 18 (60%) are s hospital. Majority of nursing officer the year of working experience 28 (56%). Majority of nursing officer had seminars, conferences 29 (58%). Most of the nursing officer Years of experience in labour room 35 (70%). Majority of the unmarried 29 (58%) and had 2-3 children 17 (57%). Majority of the nursing officer living with Monthly income 30(60%).

#### V. RECOMMENDATION:

Based on findings of the present study, the following recommendation have been made

- The same study can be conducted in Sri Manakula vinayagar medical college and hospital.
- The study can be replicated with larger samples for better generalization.
- The study can be implemented at the various states of India.

#### VI. CONCLUSION:

This study was assessing the level of knowledge with management of postpartum haemorrhage. The quantitative research was used in this study. The data was collected from 50 samples. Many of the nursing officer 12 (24%) had Inadequate level of knowledge and 38(76%) had moderate level of knowledge and the mean and standard deviation the level of management of postpartum haemorrhage is (10.54±2.92) respectively.

#### NURSING IMPLICATION:

The present study can help the nursing officer at Sri Manakula vinayagar medical college and hospital to enrich their knowledge regarding on postpartum haemorrhage. The findings of the study have implication related to nursing administration, nursing service, nursing research and nursing education.

#### NURSING ADMINISTRATION:

Nurse administrator can make necessary policies to implement the nursing care services knowledge towards on management of postpartum haemorrhage among the nursing officers.

#### NURSING SERVICES:

Nurse as a counsellor and educator should provide adequate knowledge regarding on management of postpartum haemorrhage among the nursing officers. Nurse should be polite and approachable in communicating with others



### **NURSING EDUCATION:**

- Nursing officer should be provided with adequate knowledge on management of postpartum haemorrhage
- Nursing educator should strengthen the evidence based nursing practices among the undergraduate and postgraduate nursing students.

### **NURSING RESEARCH:**

- The findings of the study help the nurses and students to develop the inquiry by providing and in the WorldWide Web baseline. The general aspects of the study result can be made by further replication of the study.
- Different studies have to be conducted future to evaluate the factors associated with structured teaching programme on management of postpartum haemorrhage among the nursing officer.
- The researcher should conduct periodic review of research findings and disseminate the findings through conferences, seminars, publications in journals

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