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## “A STUDY TO EVALUATE THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE AND PRACTICE REGARDING ACTIVE MANAGEMENT OF THIRD STAGE OF LABOR (AMTSL) AMONG STAFF NURSES WORKING IN MATERNITY DEPARTMENT OF HI-TECH MEDICAL COLLEGE AND HOSPITAL, BHUBANESWAR, KHURDHA” ODISHA.

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### ABSTRACT

**BACKGROUND:** A meta-analysis of the studies available through the Cochrane database and WHO's reproductive health library confirmed that active management of labour was associated with reduced PPH, anaemia and decreased need for Blood Transfusion, reduced risk of prolonged third stage and less use of addition a uterotonic drugs. Midwives are skilled health care professionals. At this point, it was strongly felt that structured Teaching program will illuminate their minds and improve their knowledge and practice and ultimately to update the current knowledge and practice in this field. **METHODS:** The study design consisted of one group pre-test and post-test pre experimental research design. Non-probability purposive sampling technique was used for selection of samples. The data was collected from 50 staff nurses working in maternity department of HI-TECH Medical College and Hospital, Bhubaneswar, Khurdha, Odisha using Close ended questionnaire to assess the knowledge and Observational checklist to assess the practices for performing active management of third stage of labor (AMTSL). Post test was

conducted after 7 days of administration of STP to know the effectiveness by using the same close ended questionnaire and observational checklist. **RESULTS:** Inpre-test; nurses are having on an average 49.04% of knowledge scores on AMTSL. In post-test after implementation of STP, the staff nurses scored up to 76.25% .In pre-test the practice scores is 39.73% .In post-test, after implementation of STP the nurses have scored 63.47%. The difference of knowledge scores between pre-test and post-test is 10.74 and the difference of practice scores between pre-test and post-test is 5.46.Thepaired‘t’ test was calculated and found that there is a significant difference between pre and post-test knowledge (6.71) and practice scores (5.80) before and after implementation of STP.Karl Pearson’s coefficient correlation between knowledge with practice of pre-test( $r = .70$ ) and post-test ( $r=0.76$ ) shows significant relationship, which reveals that when knowledge level increases the practice will also increases. There is association between post-test knowledge and sex of staff nurses and practice is the significant association between areas of working, of staff nurses is calculated by using Chi-square test at 0.05 level of significance.**CONCLUSION:**The result of the study shows that; there is a great need for the staff nurses, to update their knowledge and practices regarding AMTSL.

## INTRODUCTION

“A mother’s joy begins when new life is stirring inside, when a tinny heart beat is heard for the very first time and a playful kick reminds her that, she is never alone” Nikki Darton.

According to department of Reproductive Health and Research World Health Organization, the data on maternity related deaths is made available by Registrar General of India (RGI) through its Sample Registration System (SRS) in the form of Maternal Mortality Ratio (MMR). As per the latest report of the Registrar General of India, Sample Registration System (RGI-SRS), MMR of India has shown a decline from 212 per 1,00,000 live births during the period 2007- 09 to 167 per 1,00,000 live births during 2011-2013.

A series of procedures conducted during this stage are collectively termed as “Active Management of Third stage of Labor” (AMTSL) which consists of interventions designed to expedite the delivery of placenta by increasing the uterine contractions and prevent postpartum haemorrhage by adverting uterine atony. Routine practice of active management of third stage of labour (AMTSL) has been shown to reduce haemorrhage dramatically by up to 60 percent.

A renewed commitment to maternal health was made with the UN Global strategy for women’s and children’s and Adolescent’s health (2016-2030) as well as the call to countries to end preventable maternal mortality as framed in the WHO Strategies toward ending preventable maternal mortality which set a supplementary target to SDG (Sustainable Development goals3.1) whereby no country should have maternal mortality ratio greater than 140 per 100 000 live births by 2030.Women in labor have a need for companionship, empathy and help. Descriptive studies of women’s childbirth experience have suggested four dimensions to the support that every woman wants in labor: emotional support, informational

support, physical support and advocacy. Good skills in active listening are essential to supportive midwifery practice.

## **NEED FOR THE STUDY**

To observed that; the nurses have some knowledge and practice regarding the components and advantages of active management of third stage labor (AMTSL) and its importance in preventing post-partum haemorrhage (PPH). Hence it was strongly felt that structured Teaching program will illuminate their minds and improve their knowledge and practice and ultimately to update the current knowledge and practice in this field.

## **OBJECTIVES OF THE STUDY:**

- To evaluate the pre-test knowledge and practice level of staff nurses regarding active management of 3rd stage of labor (AMTSL).
- To evaluate the post-test knowledge and practice level of staff nurses regarding active management of 3rd stage of labor (AMTSL).
- To evaluate the effectiveness of structured teaching program (STP) on knowledge and practice regarding active management of 3rd stage of labor (AMTSL) among the staff nurses.
- To correlate the level of knowledge with practice of active management of 3rd stage of labor (AMTSL) among the staff nurses.
- To associate the post-test knowledge and practice level of staff nurses with selected demographic variables at 0.05 level of significance.

## **METHODS**

### **RESEARCH APPROACH:**

An evaluative research approach was used in this study.

### **RESEARCH DESIGN:**

Pre-experimental research design with one group pre-test and post-test was chosen in this study.

### **SETTING OF THE STUDY:**

The study was conducted at HI-TECH Medical College and Hospital, (O& G Dept.) Bhubaneswar, Khurdha, Odisha.

**POPULATION:**

Staff Nurses working in Obstetrics and gynaecology department at HI-TECH Medical College and Hospital, Bhubaneswar, Khurdha, Odisha .

**SAMPLE:**

Staff nurses working in the labor room, antenatal ward and Operation Theatre of obstetrics and gynaecology Department of HI-TECH Medical College and Hospital, Bhubaneswar, Khurdha, Odisha.

**SAMPLE SIZE:**

The sample comprised of 50 staff nurses who are working in HI-TECH Medical College and Hospital, Bhubaneswar, Khurdha, Odisha.

**SAMPLING TECHNIQUE:**

Non-probability purposive sampling technique was used to select the samples for this study.

**INCLUSION CRITERIA:**

Staff Nurses who are;

- Working in HI-Tech medical College and Hospital, Bhubaneswar.
- Willing to participate in the study.
- Completed anyone of the formal basic nursing education.
- Working in labor room, antenatal ward, and Operation Theatre during the period of data collection.

**EXCLUSION CRITERIA:**

Staff Nurses who are;

- Not willing to participate in the study.
- Working in postnatal ward and gynaecology OPD.
- Attended in-service education program or workshop or seminar on active management of third stage of labour.

## SELECTION AND DEVELOPMENT OF RESEARCH TOOL:

The tools used for the study were, Close ended questionnaire to assess the knowledge and Observational checklist for practices of staff nurses of active management of third stage of labor (AMTSL). The tool consisting of Section A consisted of six (6) items were age, sex, professional qualification, year of experience in nursing, area of experience and attended any in-service education programme, and seminars and section B consisted of forty (40) items related to knowledge such as; meaning of stages and review of physiology of third stage of labor (7 items), active management of third stage of labor (20 items), if not done perfectly, then Complications of third stage of labor (8 items), role of nurse in active management of third stage of labor (5 items) and section c consisted of twenty three (23) items related to practice such as administration of Uterotonic drugs, CCT and massage of the uterine fundus (11 items), examination of placenta (02 items), examination of vagina and perineum for tears (05 items), Post procedure Tasks (05 items) on AMTSL.

## RESULTS AND FINDINGS:

The findings of the study showed that; in pre-test; nurses are having on an average 49.04% of knowledge scores on AMTSL. In post-test after implementation of STP, the staff nurses scored up to 76.25%. In pre-tests the practice scores is 39.73%. In post-test, after implementation of STP the nurses have scored 63.47%. The difference of knowledge scores between pre-test and post-test is 10.74. and the difference of practice scores between pre-test and post-test is 5.46. The paired 't' test was calculated and found that there is a significant difference between pre and post-test knowledge (6.71) and practice scores (5.80) before and after implementation of STP. Karl Pearson's coefficient correlation between knowledge with practice of pre test ( $r = .70$ ) and post test ( $r = 0.76$ ) shows significant relationship, which reveals that when knowledge level increases the practice will also increase. There is association between post-test knowledge and sex of staff nurses and practice is the significant association between areas of working, of staff nurses is calculated by using Chi-square test at 0.05 level of significance.

**ANALYSIS AND INTERPRETATION OF DATA:****Section –I: Description of socio demographic variables**

<b>Sample characteristics</b>	<b>Categories</b>	<b>Frequency</b>	<b>Percentage (%)</b>
<b>AGE</b>	21-30yrs	30	60%
	31-40yrs	08	16%
	41-50yrs	07	14%
	>50yrs	05	10%
<b>GENDER</b>	MALE	02	4%
	FEMALE	48	46%
<b>Professional qualification</b>	GNM	41	82%
	BSC NURSING	06	12%
	PBBSC NURSING	02	4%
	MSC NURSING	01	2%
<b>Year of Experience</b>	<1year	13	26%
	1-3years	26	52%
	4-6years	06	12%
	>6years	05	10%
<b>AREA OF WORKING</b>	Labor room	22	44%
	Antenatal ward	13	26%
	Outpatient department (OPD)	08	16%
	Operation Theatre	07	14%
<b>Attained any training programme like in-service education /continuing education on AMTSL</b>	Yes	00	0%
	No	50	100%

**Section-II: Analysis of pre-test and post-test level of knowledge of staff nurses**

Sample characteristics	Category	Pre-test		Post test	
		Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
	Excellent (above 80%)	05	10%	12	24%
Comparison of knowledge scores between pre-test and post-test	Good (66-80%)	10	20 %	26	52%
	Average(50-65%)	13	26%	09	18%
	Below average (below 50%)	22	44%	03	06%
	Total	50	100%	50	100%

Significance difference between pre-test and post-test knowledge score.

Sample characteristics	Knowledge score	Mean	Mean difference	Mean percentage	Standard deviation	Paired 't' value
Difference between pre-test and post-test knowledge scores	Pre-test	19.76		49.04%	10.07	
	Post- test	30.5	10.74	76.25%	5.18	6.71

Table value=2.02 significant. P <0.05

Paired't' test computed between pre-test and post- test knowledge score was statistically significant at 0.05 level of significance. The calculated Paired't' value (6.71) is greater than table value (2.02).Hence H1 hypothesis is accepted.

**Section –III: Analysis of pre-test and post-test level of practices of staff nurses**

Sample characteristics	Category	Pre-test		Post test	
		Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Comparison of practice scores between pre-test and post-test	Excellent (above 80%)	00	00%	09	18%
	Good (66-80%)	08	16%	21	42%
	Average (50-65%)	13	26%	12	24%
	Below average (below 50%)	29	58%	08	16%
	Total	50	100%	50	100%

**Significance difference between pre-test and post-test practice scores.**

Sample characteristics	Practice score	Mean	Mean difference	Mean percentage	Standard deviation	Paired 't' value
Difference between pre-test and post-test practice scores	Pre-test	9.14		39.73%	4.84	
			5.46			5.80
	Post-test	14.6		63.47%	4.64	

Table value -2.02, significant  $P < 0.05$

The calculated Paired 't' value (5.80) is greater than the table value (2.02). This calculation shows that the structured teaching programme was effective to change the practice level of staff nurses regarding active management of third stage of labor (AMTSL). Hence H1 hypothesis is accepted.

**Section-IV: Evaluation of effectiveness of structured teaching programme on knowledge and practice regarding active management of third stage of labor (AMTSL) among the staff nurses.**

Comparison	Knowledge	Knowledge gain scores	Practice	Practice gain scores
	Mean percentage		Mean percentage	
Pre-test	49.04%		39.73%	
		27.21%		23.74%
Post- test	76.25%		63.47%	

**Section-V: To correlate the level of knowledge with practices of active management of third stage of labour (AMTSL) among staff nurses.**

Aspects	Knowledge scores		Practice scores		Correlation(R)
	Mean	S.D.	Mean	S.D.	
Pre-test	19.76	10.07	9.14	4.84	<b>0.70</b>
Post -test	30.5	5.18	14.6	4.64	<b>0.76</b>



**Section–VI: To assess the association between post-test levels of knowledge of active management of third stage of labour (AMTSL) with selected demographic variables among staff nurses.**

Sl. No	Sample characteristics	Demographic variables	Frequency of Staff urses				DF	P value	chi-squar e
			Below average	Average	Good	Excellent			
1	Age	21-30yrs	01	03	19	07	9	16.92	14.50
		31-40yrs	01	04	02	01			
		41-50yrs	01	02	03	01			
		>50yrs	0	0	02	03			
2	Gender	Male	0	01	01	0	3	7.82	*8.22
		Female	03	08	25	12			
3	Professional qualification	GNM	02	06	22	11	9	16.92	5.61
		BSc Nsg	01	02	02	01			
		PBBScNsg	0	01	01	0			
		MSc Nsg	0	0	01	0			
4	Year of experience	<1yr	01	02	08	02	9	16.92	2.13
		1-3yrs	02	05	12	07			
		4-6yrs	0	01	03	02			
		>6yrs	0	01	03	01			
5	Area of working	Labour room	0	05	16	01	9	16.92	15.08
		Antenatal ward	01	02	04	06			
		Gynaecology outdoor	01	02	03	02			
		Operation theatre	01	0	03	03			
6	Attained any in service education programme on AMTSL	Yes	0	0	0	0	3	7.82	0
		No	03	09	26	12			

\*Significant

The table reveals that there is significant association between knowledge and gender of staff nurses (Chi square ( $\chi^2$ )=8.22,df=3,at  $p<0.05$ ).so it shows that there is an association between knowledge with selected demographic variables at 0.05 level of significance. Hence H2 hypothesis is accepted.

**Section –VI: To assess the association between levels of practices of active management of third stage of labor (AMTSL) with selected demographic variables among staff nurses.**

Sl No.	Sample characteristics	Demographic variables	Frequency of staff nurses				DF	P value	chi-square
			Below average	Average	Good	Excellent			
1	Age	21-30yrs	02	08	13	07	9	16.92	7.93
		31-40yrs	02	02	03	01			
		41-50yrs	03	01	02	01			
		>50yrs	01	01	03	0			
2	Gender	Male	0	01	01	0	3	7.82	1.32
		Female	08	11	20	09			
3	Professional qualification	GNM	06	10	18	07	9	16.92	6.40
		BSc Nsg	02	02	01	01			
		PBBScNsg	0	0	01	01			
		MSc Nsg	0	0	01	0			
4	Year of experience	<1yr	04	02	05	02	9	16.92	6.13
		1-3yrs	04	08	10	04			
		4-6yrs	0	01	03	02			
		>6yrs	0	01	03	01			
5	Area of working	Labour room	0	06	14	02	9	16.92	*18.24
		Antenatal ward	02	02	05	04			
		Gynaecology outdoor	03	02	02	01			
		Operation theatre	03	02	0	02			
6	Attained any in service education programme on AMTSL	Yes	0	0	0	0	3	7.82	0
		No	03	09	26	12			

\*Significant

The table reveals that there is significant association between practice is the significant association between practice and area of working, of staff nurses ( $\chi^2=18.24,df=9,at p<0.05$ ). So it shows that there is an association between practices with selected demographic variables at 0.05 level of significance. Hence H2 hypothesis is accepted.

## DISCUSSIONS:

- Motivate the staff nurses and keep them updated with necessary knowledge and practice regarding proper technique of active management of third stage of labor (AMTSL).
- Regular demonstration classes should be conducted for regaining the knowledge and practice of staff nurses regarding active management of third stage of labor (AMTSL)

## CONCLUSION:

The result of the study shows that there is a great need for the staff nurses, to update their knowledge and practices regarding active management of third stage of labor (AMTSL).

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