A STUDY TO ASSESS THE EFFECTIVENESS OF PLANNED TEACHING PROGRAMME ON KNOWLEDGE OF NURSE MIDWIVES REGARDING ACTIVE MANAGEMENT OF THIRD STAGE OF LABOUR IN PREVENTION OF POST PARTUM HEMORRHAGE AT A SELECTED HOSPITAL IN AMBEDKAR NAGAR (UP)

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ABSTRACT:

Background: Active Management of the Third Stage of Labour (AMTSL) is a critical intervention aimed at preventing postpartum hemorrhage (PPH), a leading cause of maternal morbidity and mortality worldwide. The third stage of labour, which begins after the birth of the baby and ends with the expulsion of the placenta and fetal membranes, is a period of heightened risk for excessive bleeding. While this stage is usually uneventful, complications such as uterine atony, retained placenta, and coagulation disorders can lead to life-threatening hemorrhage. **Objectives:**1) To determine the knowledge of nurse midwives regarding active management of third stage of labour in prevention of post-partum hemorrhage.2) To evaluate the effectiveness of planned teaching programme regarding active management of third stage of labour in prevention of post-partum hemorrhage.3) To find out the association of the post-test knowledge scores with the selected demographic variables. **Methods:** One group Pre-test and Post-test (Quasi experimental) design, Simple random sampling was used and 30 participants were chosen **Result:** This study aims to assess the effectiveness of a Planned Teaching Program (PTP) in enhancing nurse midwives' knowledge regarding AMTSL at a selected hospital in Amedkar Nagar, Uttar Pradesh.

KEY WORDS:

Active Management of the Third Stage of Labour, Postpartum Hemorrhage, Nurse Midwives, Knowledge, Planned Teaching Program.

INTRODUCTION

Active Management of the Third Stage of Labour (AMTSL) is a critical intervention aimed at preventing postpartum hemorrhage (PPH), a leading cause of maternal morbidity and mortality worldwide. The third stage of labour, which begins after the birth of the baby and ends with the expulsion of the placenta and fetal membranes, is a period of heightened risk for excessive bleeding. While this stage is usually uneventful, complications such as uterine atony, retained placenta, and coagulation disorders can lead to life-threatening hemorrhage.[1]

AMTSL involves a sequence of interventions, including the administration of a uterotonic drug (such as oxytocin), controlled cord traction (CCT), and uterine massage, which collectively work to reduce blood loss after childbirth. The World Health Organization (WHO) and various professional bodies advocate for the routine use of AMTSL, particularly in hospital settings, as it has been shown to significantly decrease the incidence of PPH. Despite strong evidence supporting AMTSL, its implementation is often hindered by a lack of skilled birth attendants, particularly in low- and middle-income countries, where home deliveries remain prevalent. Expanding the training of midwives and other healthcare providers in AMTSL is therefore a crucial step in reducing maternal mortality. [2]

Postpartum hemorrhage, defined as blood loss exceeding 500 mL after vaginal delivery or 1000 mL after caesarean section, remains a serious but preventable condition. The primary cause of PPH is uterine atony, which occurs when the uterus fails to contract adequately after childbirth. Other causes include birth trauma, retained placental tissue, and coagulation disorders, collectively known as the "Four T's". If not managed promptly, PPH can lead to hypovolemic

shock, organ failure, and maternal death. Early detection and timely intervention are essential in reducing the risk of severe complications.

The physiological changes during pregnancy, including a 50% increase in maternal blood volume, serve as a protective mechanism to compensate for blood loss at delivery. However, once blood loss exceeds 25% of the total blood volume, hemodynamic instability occurs, requiring urgent medical intervention. While expectant management, in which the placenta is delivered spontaneously without interventions, is an alternative approach, studies indicate that AMTSL significantly reduces the likelihood of PPH and the need for emergency interventions. The timely administration of uterotonic agents, early clamping of the umbilical cord, and gentle traction of the cord to facilitate placental delivery all contribute to effective hemorrhage prevention[3]

NEED FOR THE STUDY

Maternal health remains a global priority, with postpartum hemorrhage (PPH) being one of the leading causes of maternal mortality and morbidity. PPH is responsible for nearly one-third of all maternal deaths worldwide, making it a critical issue in obstetric care. Despite advancements in maternal healthcare, the incidence of PPH remains high, particularly in developing countries, where timely interventions are often lacking. Active Management of the Third Stage of Labour (AMTSL) is a widely recommended strategy to prevent PPH, yet gaps in knowledge and adherence to its protocols among healthcare providers continue to pose challenges. Strengthening nurse midwives' knowledge regarding AMTSL is essential to improving maternal outcomes, reducing preventable deaths, and enhancing the overall quality of obstetric care.[4]

Postpartum hemorrhage accounts for 30% of maternal mortality worldwide, with one woman dying every four minutes due to excessive bleeding following childbirth. In developing countries, PPH remains one of the leading causes of maternal mortality, responsible for 25–43% of maternal deaths. A systematic review and meta-analysis conducted in Ethiopia reported that 8.24% of women experienced PPH, highlighting the substantial burden of this condition in low- resource settings. The risk of maternal death from PPH varies significantly across regions, with 1 in 1000 deliveries in developing countries compared to 1 in 100,000 births in the United Kingdom (Edition, Third). This stark contrast underscores the need for effective interventions, such as AMTSL, to reduce maternal deaths, particularly in high-burden regions.[5]

India alone contributes to over 20% of global maternal deaths, despite having only 16% of the world's population. Although the Maternal Mortality Ratio (MMR) in India has significantly declined from over 750 in the 1960s to 400 in the 1990s, and further to 212 in 2023-2024, PPH continues to be a major concern. Studies indicate that PPH occurs in 2–4% of vaginal deliveries and 6% of caesarean sections, with uterine atony accounting for 50% of cases (Kramer, Michael S., et al.). Since uterine atony is the primary cause of PPH, interventions such as the administration of uterotonic drugs, early cord clamping, and controlled cord traction—key components of AMTSL—are essential in reducing excessive bleeding and associated complications.[6]

The World Health Organization (WHO) has consistently emphasized AMTSL as a crucial intervention for reducing PPH-related deaths. However, studies suggest that for women at mixed levels of bleeding risk, the effectiveness of active management in preventing severe PPH (more than 1000 mL blood loss) remains uncertain, with reported risk reduction ratios varying from 0.34 to 0.87 (Sindhuri, R., and Amol R. Dongre). Additionally, AMTSL has been found to potentially reduce maternal anemia after childbirth (average risk ratio 0.50) and decrease the likelihood of neonatal complications such as jaundice requiring treatment.[7]

Globally, postpartum hemorrhage affects approximately 14 million women annually, resulting in an estimated 70,000 maternal deaths (Hill, Kenneth, et al.). PPH complicates 1–10% of all deliveries, with severe cases occurring in 1–2% of births. In developing countries, where healthcare infrastructure is often inadequate, maternal mortality rates due to PPH remain alarmingly high. The World Health Organization (WHO) estimates that of the 529,000 maternal deaths occurring each year, 136,000 (25.7%) take place in India, with two-thirds of these deaths occurring after delivery [8]

STATEMENT OF PROBLEM

"A study to assess the effectiveness of planned teaching programme on knowledge of nurse midwives regarding active management of third stage of labour in prevention of post-partum haemorrhage at a selected hospital in Amedkar Nagar (UP)"

OBJECTIVES OF THE STUDY

1. To determine the knowledge of nurse midwives regarding active management of third stage of labour in prevention of post-partum haemorrhage.
2. To evaluate the effectiveness of planned teaching programme regarding active management of third stage of labour in prevention of post-partum haemorrhage.
3. To find out the association of the post-test knowledge scores with the selected demographic variables.

HYPOTHESES: -

H_1: The mean post-test knowledge scores will be significantly higher than the mean pretest knowledge scores.

H_2: There will be a significant association of the posttest knowledge scores with the selected demographic variables.

MATERIAL AND METHODS:

Research Approach

Quantitative/experimental approach.

Research Design

One group Pre-test and Post-test (Quasi experimental) design.

Sampling Technique

Simple Random sampling technique was used this study.

Variables: -

Independent Variable

Planned teaching program on AMTSL

Dependent variables

Knowledge Level of Nurse Midwives on AMTSL

Setting

The study is conducted in a Female District Hospital, Amedkar Nagar, Uttar Pradesh.

Population

Target Population

The target population consists of nurse midwives working in the maternity and labour ward of the selected hospital.

Sample

The study includes Nurse Midwives sample.

Sample Size

The study includes 50 nurse midwives in one group pretest and post-test.

Inclusion Criteria

Nurse midwives who:

- Are currently working in the labour and maternity ward.
- Have not received recent formal training on AMTSL in the last six months.
- Are willing to participate in the study.
- Can read and understand English/Hindi to complete the knowledge assessment.

Exclusion Criteria

Nurse midwives who:

- Are not directly involved in labour room duties.
- Have already undergone recent AMTSL training before the study.
- Are on maternity leave, sick leave, or unavailable during data collection.

Tools and technique

Part-I: This section collects background information about the participants to analyze its association with their knowledge levels. It includes: Age, Educational Qualification, Years of Work Experience in Maternity Unit, Attendance in Training on AMTSL (Yes/No).

Part-II: This section consists of 30 multiple-choice questions (MCQs) designed to measure knowledge regarding AMTSL.

Data Collection Procedure:

The data collection procedure was conducted systematically to ensure the accurate assessment of the effectiveness of the planned teaching program on Active Management of the Third Stage of Labour (AMTSL) among nurse midwives at the selected hospital in Amedkar Nagar. Before initiating data collection, formal permission was obtained from the hospital administration and the Institutional Ethics Committee (IEC). All the samples were receptive and co-operative during data collection. The purpose of the study was explained to the participants, and informed consent

was obtained to ensure voluntary participation. A pilot study was conducted to test the feasibility of the data collection tools.

Data Analysis:

Descriptive statistics like frequency, mean, SD, mean percentage was used for description of demographic characteristics and assessment of knowledge. Inferential statics like paired t test was used to evaluate the effectiveness of planned teaching Programme and chi-square test was used to find out the association between Knowledge with Demographic Variables.

The findings were discussed under the following headings

1. Pre-Test Knowledge Assessment on Active Management of the Third Stage of Labour (AMTSL)

The maximum score for the test was 30, with an overall mean score of 18.07, a standard deviation (SD) of 8.75, and a mean percentage of 60.2%, indicating a moderate level of knowledge. Among the subcategories, the highest mean percentage was observed in the Components of Active Management of Third Stage of Labour (64.3%), followed by Evidence-Based Practice and Guidelines (61.3%), and Basic Concepts of the Third Stage of Labour (61.1%). The Complications and Management of Postpartum Hemorrhage (57.5%) and Nursing Responsibilities in AMTSL (55.8%) had relatively lower mean percentages, suggesting areas that require improvement.

2. Distribution of posttest knowledge level based on active management of the third stage of labour

The post-test knowledge level distribution on active management of the third stage of labour (AMTSL) among 30 participants shows a significant improvement compared to the pretest results. The majority of participants, 24 (80.0%), achieved adequate knowledge, while 4 (13.3%) had moderate knowledge, and only 2 (6.7%) remained in the inadequate knowledge category. This marked shift from the pretest distribution indicates that the planned teaching program was highly effective in enhancing the knowledge of the participants.

3. Distribution of pretest and posttest knowledge level based on active management of the third stage of labour.

Knowledge levels	Pretest		Posttest	
	Frequency	Percentage	Frequency	Percentage
Inadequate knowledge	8	26.7	2	6.7
Moderate knowledge	13	43.3	4	13.3
Adequate knowledge	9	30.0	24	80.0

The comparison of pretest and posttest knowledge levels on active management of the third stage of labour (AMTSL) among 30 participants shows a remarkable improvement after the intervention. In the pretest, 8 (26.7%) participants had inadequate knowledge, which significantly reduced to 2 (6.7%) in the posttest. Similarly, those with moderate knowledge decreased from 13 (43.3%) in the pretest to 4 (13.3%) in the posttest. Most notably, the number of participants with adequate knowledge increased from 9 (30.0%) in the pretest to 24 (80.0%) in the posttest.

RECOMMENDATION

On the basis of study findings, following recommendations have been made for further study.

- Integrate the Planned Teaching Program (PTP) into routine training for nurse midwives in hospitals and maternity units across Uttar Pradesh.
- Conduct regular in-service training programs to ensure midwives are updated on best practices in AMTSL.
- Expand AMTSL training to community health centers and rural healthcare facilities to ensure uniform knowledge dissemination.

- Establish periodic knowledge assessments and refresher courses to sustain knowledge retention and address any gaps in AMTSL practice.

CONCLUSION

This study highlights the critical role of structured educational interventions in improving knowledge of AMTSL among nurse midwives. Implementing Planned Teaching Programs (PTP) at hospital and community levels can lead to improved maternal health outcomes, better prevention of PPH, and alignment with national health strategies to reduce maternal mortality. Standardized AMTSL training should be made a mandatory part of midwifery education and clinical practice, ensuring that midwives are equipped with the necessary skills to provide safe and effective maternal care.

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