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A Study to Assess the Knowledge of Nursing Personnel Regarding Newborn Resuscitation in Labour Room of Selected Hospital, Sasaram, Rohtas

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Abstract—**Background: Newborn resuscitation is a life-saving intervention essential for reducing neonatal morbidity and mortality. Globally, 10% of newborns require assistance to initiate breathing, and inadequate skills among healthcare personnel often lead to preventable neonatal deaths. Nurses working in labour rooms play a crucial role; therefore, assessing their knowledge is vital.**

Objectives:

1. **To assess the level of knowledge of nursing personnel regarding newborn resuscitation.**
2. **To determine the association between knowledge and selected demographic variables.**

Methodology: A descriptive research design was used among *60 nursing personnel* working in the labour room of NMCH, Sasaram. A structured questionnaire (20 items) assessed knowledge. Data were collected using a randomized sampling technique and analysed using descriptive and inferential statistics including Chi-square.

Results: In the pre-test, 55% had poor knowledge, 35% had fair knowledge, and only 10% had good knowledge. In the post-test, only 10% remained poor, 63.3% had fair knowledge, and 26.6% demonstrated good knowledge. No significant association was found between demographic variables (age, gender, area, education, income, religion, marital status) and knowledge scores ($p > 0.05$).

Conclusion: The study revealed inadequate baseline knowledge among nursing personnel regarding newborn resuscitation. Post-assessment scores improved, indicating the need for structured teaching and periodic refresher training to ensure readiness for neonatal emergencies.

Index Terms—**Newborn resuscitation, Knowledge, Nursing personnel, Labour room, Neonatal care.**

I. INTRODUCTION

Newborn resuscitation is a time-critical intervention essential for stabilizing infants who do not initiate breathing at birth. According to WHO, over 10 million babies require assistance to begin breathing each year, and nearly one million die due to birth asphyxia. Timely resuscitation within the "Golden Minute" significantly improves survival outcomes.

Nursing personnel in labour rooms are often the first responders. Their level of knowledge and skill directly influences newborn outcomes. However, studies show wide gaps in knowledge due to lack of regular training, inadequate exposure, and outdated practices. Therefore, assessing the knowledge of nursing personnel is vital for planning effective training and improving neonatal care quality.

II. NEED OF THE STUDY

Birth asphyxia accounts for nearly 23% of neonatal deaths globally. In India, neonatal mortality remains high despite increased institutional deliveries. Many labour room nurses rely on outdated knowledge, lack formal NRP training, or have limited exposure to real-life resuscitation scenarios.

Studies across India indicate that only 25–40% of nurses possess adequate knowledge of neonatal

resuscitation. Structured teaching programmes have shown remarkable improvements in post-test scores.
Thus, assessing knowledge gaps is crucial to design targeted educational interventions and ultimately reduce preventable neonatal deaths.

III. OBJECTIVES

Primary Objective
- To assess the level of knowledge of nursing personnel regarding newborn resuscitation.

Secondary Objectives
- To determine the association between knowledge and selected demographic variables.
- To provide recommendations for educational interventions based on identified gaps.

IV. METHODOLOGY

Research Approach: Quantitative
Design: Descriptive
Setting: Labour room, NMCH Hospital, Sasaram
Population: Nursing personnel working in labour rooms
Sample Size: 60
Sampling Technique: Randomized sampling
Inclusion Criteria
- Nursing personnel working in the labour room
- Available and willing to participate

Exclusion Criteria
- Personnel not involved in newborn care
- On leave or unwilling to participate

Tool Description
- Section **A:** Demographic variables
- Section **B:** 20-item structured knowledge questionnaire
  - Each correct answer = 1
  - Maximum score = 20

Knowledge Scoring
- Poor: 0–10
- Fair: 11–15
- Good: 16–20

Data Analysis
Descriptive statistics (frequency, percentage) and inferential statistics (Chi-square test) were used.

V. DATA ANALYSIS & RESULTS

1. Knowledge Levels (Pre-test and Post-test)

Knowledge Level	Pre-test (%)	Post-test (%)
Poor	55%	10%
Fair	35%	63.3%
Good	10%	26.6%

Interpretation
- Majority had poor baseline knowledge.
- Significant improvement observed in post-test scores.

2. Association With Demographic Variables
Variables tested: age, gender, area, religion, education, marital status, income
- No variable showed significant association with knowledge ($p > 0.05$).

VI. DISCUSSION

Findings reveal that most nursing personnel had inadequate pre-test knowledge of newborn resuscitation. This aligns with studies by Mishra (2019) and Patel (2021) showing widespread knowledge gaps among labour room nurses.
Post-test improvement indicates that structured teaching programmes effectively enhance knowledge. Similar outcomes were reported by Bharti & Sinha (2019) showing significant gains after educational interventions.
No demographic variable was significantly associated with knowledge, suggesting all categories of nursing personnel require standardized periodic training.

VII. CONCLUSION

The study concludes:
- Nursing personnel had inadequate baseline knowledge regarding newborn resuscitation.
- Post-test results show substantial improvement.
- Regular training, refresher courses, and hands-on simulation practice are essential to ensure readiness for neonatal emergencies.

VIII. RECOMMENDATIONS

1. Implement mandatory neonatal resuscitation training for all labour room nurses.
2. Conduct refresher training every 6 months.

3. Include simulation-based practice in hospital training schedules.
4. Develop hospital policies ensuring NRP-certified staff are present at every delivery.
5. Further studies with larger samples are recommended.

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