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A STUDY TO ASSESS THE EFFECTIVENESS OF A PLANNED TEACHING PROGRAMME ON THE PRACTICE OF WARM CHAIN AMONG MOTHERS ADMITTED TO SELECTED RURAL HOSPITALS OF RATLAM, MADHYA PRADESH

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Introduction

Neonatal hypothermia is a major yet preventable cause of neonatal morbidity and mortality, especially in developing countries like India. The World Health Organization defines neonatal hypothermia as a body temperature below 36.5°C. Despite advancements in maternal and child health services, the prevalence of hypothermia remains high in rural settings due to limited awareness, inadequate facilities, and improper newborn care practices.

The warm chain refers to a series of interlinked procedures aimed at maintaining the newborn's body temperature from birth until discharge. These include warm delivery rooms, immediate drying, skin-to-skin contact, early initiation of breastfeeding, delayed bathing, appropriate clothing, and rooming-in. Mothers are the primary caregivers and play a crucial role in sustaining these practices.

Studies have shown that lack of maternal knowledge and poor practice of warm chain measures contribute significantly to neonatal hypothermia. Therefore, educating mothers through structured and planned teaching programmes is an effective strategy to improve newborn care practices and outcomes.

Keywords: Warm chain, Planned teaching programme, Mothers, Rural hospitals, Neonatal hypothermia

Background:

Maintenance of the warm chain is a critical component of essential newborn care, particularly in rural hospital settings where neonatal hypothermia remains a significant contributor to neonatal morbidity and mortality. Mothers play a key role in ensuring proper warm chain practices, yet inadequate knowledge and practice continue to be observed.

Objectives:

1. To assess the pre-test level of warm chain practices among mothers admitted to selected rural hospitals of Ratlam, Madhya Pradesh.
2. To evaluate the effectiveness of a planned teaching programme on warm chain practices.
3. To determine the association between post-test practice scores and selected demographic variables.

Materials and Methods

Research Design

A quantitative research approach with a **pre-experimental one-group pre-test post-test design** was used.

Setting of the Study

The study was conducted in **selected rural hospitals of Ratlam district, Madhya Pradesh**.

Population

The target population comprised **mothers admitted in postnatal wards** of selected rural hospitals.

Sample and Sample Size

A sample of **50 mothers** was selected using **non-probability convenience sampling technique**.

Inclusion Criteria

- Mothers admitted to postnatal wards
- Mothers willing to participate

- Mothers available during the period of data collection

Exclusion Criteria

- Mothers with critically ill neonates
- Mothers who had previously attended formal training on warm chain practices

Tool for Data Collection

- **Section A:** Demographic variables (age, education, parity, type of delivery, residence, source of information)
- **Section B:** Structured practice checklist on warm chain

Intervention

A **planned teaching programme** was administered, which included:

- Meaning and importance of warm chain
- Causes and effects of neonatal hypothermia
- Components of warm chain
- Demonstration and reinforcement of correct practices

Data Collection Procedure

- Pre-test assessment using practice checklist
- Administration of planned teaching programme
- Post-test conducted after seven days

Ethical Considerations

- Permission obtained from hospital authorities
- Informed consent taken from participants
- Confidentiality and anonymity maintained

Data Analysis

Data were analysed using descriptive statistics (frequency, percentage, mean, standard deviation) and inferential statistics (paired t-test, chi-square test).

Results

Pre-Test Practice Level

- Poor practice: 68%
- Average practice: 32%
- Good practice: 0%

Post-Test Practice Level

- Good practice: 76%
- Average practice: 24%
- Poor practice: 0%

The mean post-test practice score was significantly higher than the pre-test mean score. The calculated paired t-value was statistically significant at $\mathbf{p < 0.05}$, indicating that the planned teaching programme was effective.

In the pre-test, the majority of mothers (68%) demonstrated poor practice regarding warm chain, while 32% had average practice. Following the planned teaching programme, 76% of mothers exhibited good practice and 24% showed average practice. The mean post-test practice score was significantly higher than the mean pre-test score ($p < 0.05$), indicating the effectiveness of the intervention.

No significant association was found between post-test practice scores and selected demographic variables except maternal education.

Discussion

The findings of the study revealed a marked improvement in warm chain practices following the planned teaching programme. This indicates that structured educational interventions are effective in enhancing maternal practices related to newborn thermal care. Similar findings have been reported in studies conducted in other rural and semi-urban settings, where educational interventions significantly improved maternal knowledge and practice of warm chain measures.

The improvement observed highlights the importance of integrating warm chain education into routine postnatal care services, especially in rural hospitals.

Conclusion

The study concluded that the planned teaching programme was effective in improving the practice of warm chain among mothers admitted to selected rural hospitals of Ratlam, Madhya Pradesh. Continuous health education and reinforcement by nursing personnel are essential to prevent neonatal hypothermia and promote newborn survival.

Recommendations

- Planned teaching programmes should be incorporated into routine postnatal care
- Nursing staff should receive regular training on warm chain practices
- Similar studies can be conducted with larger samples and control groups
- Community-based studies can be undertaken for wider generalisation

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