

“A STUDY TO ASSESS THE EFFECTIVENESS OF A STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE AND PRACTICES OF POSTNATAL MOTHERS REGARDING ESSENTIAL NEWBORN CARE IN SELECTED AREAS AT KOVILPALAYAM, COIMBATORE, TAMIL NADU.”



Nursing

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ABSTRACT

Background: The neonatal period is a crucial phase for infant survival, and many neonatal deaths are preventable through proper essential newborn care (ENC). Inadequate knowledge and practices among postnatal mothers, especially in rural areas, remain a major concern. Structured teaching programmes (STPs) can play an important role in improving maternal awareness and newborn care practices. **Objectives:** To assess the pre-test and post-test levels of knowledge and practices regarding essential newborn care among postnatal mothers, evaluate the effectiveness of a structured teaching programme, determine the correlation between knowledge and practices, and examine the association of post-test scores with selected demographic variables. **Methods:** A quantitative pre-experimental one-group pre-test and post-test design was conducted among 60 postnatal mothers in selected rural areas of Kovilpalayam, Coimbatore, using convenience sampling. Data were collected through a structured knowledge questionnaire and an observational practice checklist. Descriptive and inferential statistics were used for analysis. **Results:** The structured teaching programme resulted in a significant improvement in knowledge and practice. The mean knowledge score increased from 11.35 to 17.28($t=12.684$, $p<0.001$), and the mean practice score improved from 6.20 to 8.90($t=14.762$, $p<0.001$). A strong positive correlation was observed between post-test knowledge and practice scores ($r=0.714$, $p<0.05$). Significant associations were found between post-test scores and selected demographic variables. **Conclusion:** The structured teaching programme was effective in enhancing the knowledge and practices of postnatal mothers regarding essential newborn care, highlighting the importance of incorporating educational interventions into routine maternal and child health services.

KEYWORDS

Essential Newborn Care, Postnatal Mothers, Structured Teaching Programme, Knowledge, Practice, Neonatal Health

INTRODUCTION

The neonatal period-the first 28 days of life-is the most fragile stage of human development, requiring timely and effective care. Despite progress in maternal and child health, neonatal deaths continue to constitute a major portion of under-five mortality worldwide. Evidence-based interventions such as early and exclusive breastfeeding, thermal protection, hygienic cord care, and timely immunization are proven strategies under essential newborn care (ENC) to reduce these preventable deaths.

Mothers are the primary caregivers during this critical period. Their understanding and implementation of ENC practices significantly influence newborn outcomes. However, in many rural settings, traditional beliefs and limited awareness compromise the quality of newborn care. This study seeks to assess the knowledge and practices of postnatal mothers in Kovilpalayam, Coimbatore, and enhance them through structured teaching.

Need For The Study

Globally, an estimated **2.3 million neonatal deaths** occur each year, with the **global neonatal mortality rate (NMR) at 17 per 1000 live births** (WHO, 2023). **India**, despite healthcare advancements, records an NMR of **20 per 1000 live births**, contributing the highest share to global neonatal deaths. Most of these are preventable with proper care. **Tamil Nadu** fares better with an NMR of **11 per 1000 live births**, yet rural areas like **Kovilpalayam** face challenges due to inadequate health literacy and unsafe newborn practices. Pre-lacteal feeding, early bathing, and improper cord care are still prevalent.

Studies have demonstrated that educating mothers improves neonatal care and outcomes. Hence, assessing existing knowledge and practices and reinforcing them through structured teaching is essential. This study supports India's effort toward achieving **Sustainable Development Goal 3.2**, which aims to end preventable neonatal deaths.

Problem Statement:

“A Study to Assess the Effectiveness of a Structured Teaching Programme on Knowledge and Practices of Postnatal Mothers Regarding Essential Newborn Care in Selected Areas at Kovilpalayam, Coimbatore, Tamil Nadu.”

OBJECTIVES:

- To assess pre-test and post-test knowledge and practices regarding essential newborn care among postnatal mothers.
- To evaluate the effectiveness of a structured teaching programme on knowledge and practices.
- To determine the correlation between knowledge and practices

regarding essential newborn care among postnatal mothers.

- To find the association between post-test knowledge and practice scores and selected demographic variables of postnatal mothers.

HYPOTHESIS:

H₁: There is a significant difference in post-test knowledge and practice scores on essential newborn care.

H₂: There is a significant correlation between knowledge and practices on essential newborn care.

H₃: There is a significant association between post-test knowledge and practice scores and selected demographic variables.

METHODOLOGY:

Research Approach: A quantitative research approach was adopted for the study.

Research Design: A Pre-experimental one-group pre-test and post-test design was used.

Setting Of The Study: The study was conducted in **selected rural areas of Kovilpalayam, Coimbatore, Tamil Nadu.**

Population: The population consisted of **postnatal mothers** residing in the selected areas of Kovilpalayam.

Variables

Independent Variable: Structured teaching programme on essential newborn care

Dependent Variables: Knowledge and practice scores of postnatal mothers regarding essential newborn care

Sample And Sampling Technique: The study sample included **60 postnatal mothers**, selected using **non-probability convenience sampling.**

Sampling Criteria

Inclusion Criteria:

- Postnatal mothers within 28 days after delivery
- Willing to participate in the study
- Able to understand Tamil or English

Exclusion Criteria:

- Mothers whose babies were older than 1 month
- Mothers from a medical or nursing background

Development And Description Of The Tool:

The data collection tool was developed based on literature review and expert validation. It consisted of:

Section A: Demographic profile (age, education, occupation, type of family, family monthly income, number of children, mode of delivery, source of health information.)

Section B: Structured knowledge questionnaire on essential newborn care

Total items:25
Each correct answer=1 mark;
Incorrect=0

Score Interpretation:

Inadequate Knowledge:0–12
Moderate Knowledge:13–19
Adequate Knowledge:20–25

Section C: Observational checklist on newborn care practices

Total items: 15
Practice scoring based on observed responses

Score Interpretation:

Poor Practice:0–5
Fair Practice:6–10
Good Practice:11–15

Plan For Data Analysis

Descriptive Statistics: Mean, Standard Deviation (SD), frequency, and percentage

Inferential Statistics:

Paired T-test – to evaluate pre- and post-test differences

Pearson Correlation – to assess the relationship between knowledge and practices

Chi-square Test – to find the association of post-test scores with selected demographic variables

Data Analysis And Interpretation:

The demographic characteristics of postnatal mothers revealed that the majority were aged 26–30 years(40%), followed by 20–25years(30%) and above 31 years(30%). Regarding education, 36.6% had completed secondary education, another 36.6% were graduates and above, 16.7% had primary education, and 10% had no formal education. More than half of the mothers were housewives(56.7%), while others were government employees(16.6%), daily wage workers (16.6%), or private employees(10%). Most belonged to nuclear families(63.3%), with 30% from joint families and 6.7% from extended families. Monthly income varied, with 33.3% earning ₹10,001–₹20,000, 26.7% earning ₹20,001–₹30,000, and 20% each earning below ₹10,000 or above ₹30,000. With respect to obstetric characteristics, 46.6% had two children, 36.7% had one child, and 16.7% had three or more children. A majority had normal vaginal delivery(60%), followed by cesarean section(36.7%) and instrumental delivery(3.3%). Health personnel were the primary source of health information for 40% of the mothers, followed by mass media(23.3%), friends/neighbors(20%), and self-learning(16.7%).



Fig: Frequency and Percentage Distribution of Level of Practice among Postnatal mothers in Pre-test and Post-test

Table: Frequency And Percentage Distribution Of Pre And Post-test Level Of Knowledge Regarding Essential Newborn Care Among Postnatal Mothers. n=60

Level Of Knowledge	Pre test		Post test	
	n	%	n	%
In adequate knowledge	10	16.66%	0	0%
Moderate knowledge	36	60%	3	5%
Adequate knowledge	14	23.33%	57	95%

DISCUSSION

Objective 1: To assess the pre-test and post-test levels of knowledge and practice regarding essential newborn care among postnatal mothers.

In the pre-test, the majority of postnatal mothers (60%) had moderately adequate knowledge, while 16.66% had inadequate knowledge and 23.33% had adequate knowledge. In the post-test, most mothers (95%) attained adequate knowledge, with only 5% remaining in the moderately adequate category.

Regarding practice, 71.66% of mothers demonstrated average practice and 11.66% showed poor practice in the pre-test. After the structured teaching programme, a marked improvement was observed, with 90% of mothers demonstrating good practice and none showing poor practice.

Objective 2: To Evaluate The Effectiveness Of A Structured Teaching Programme On Knowledge And Practices

The effectiveness of the structured teaching programme was confirmed by a significant increase in mean knowledge and practice scores in the post-test compared to the pre-test. The mean knowledge score improved from 11.35±2.46 to 17.28±1.72 (t=12.684, p<0.001), while the mean practice score increased from 6.20±1.85 to 8.90±1.02 (t=14.762, p<0.001). These findings demonstrate that the structured teaching programme was highly effective in enhancing both knowledge and practices related to essential newborn care among postnatal mothers. Hence, **Hypothesis H₁ was accepted.**

Objective 3: To Correlate The Relationship Between Knowledge And Practice Regarding Essential Newborn Care Among Postnatal Mothers.

In the pre-test phase, a moderate positive correlation was observed between knowledge and practice (r=0.492, p=0.028), suggesting that mothers with better knowledge tended to demonstrate better practices, though the relationship was not very strong. After the structured teaching programme, the correlation strengthened substantially (r=0.714, p=0.001), indicating a strong positive and statistically significant relationship between knowledge and practice in the post-test. Thus, **Hypothesis H₂ was accepted.**

Objective 4: To find the association between post-test knowledge and practice levels with selected demographic variables.

Post-test knowledge and practice levels showed a significant association with age, educational qualification, occupation, family monthly income, and number of children (p < 0.05). However, no significant association was found with type of family, mode of delivery, and source of health information (p>0.05). Hence, **Hypothesis H₃ was accepted.**

CONCLUSION

The study concluded that the structured teaching programme was highly effective in improving the knowledge and practices of postnatal mothers regarding essential newborn care. The significant improvement observed in post-test scores highlights the importance of planned educational interventions in promoting appropriate newborn care practices, thereby contributing to better neonatal health outcomes.

Nursing Implications

Nursing Practice

- Nurses should routinely assess the knowledge and practices of postnatal mothers regarding essential newborn care.
- Health education should be provided using demonstrations, audiovisual aids, and written materials during the postnatal period.

Nursing Education

- Nurse educators should incorporate essential newborn care topics into nursing curricula and in-service education programmes.
- Continuous education programmes should be organized to update nurses on evidence-based newborn care practices.

Nursing Administration

- Nurse administrators should facilitate regular teaching programmes for postnatal mothers and ensure availability of educational resources in maternity units.
- Support should be provided for staff training and implementation of newborn care education protocols.

Nursing Research

- Nurse researchers should disseminate findings related to newborn care education and evaluate innovative teaching strategies.
- Further research should be encouraged to strengthen evidence-based practices in neonatal care.

Recommendations

- Similar studies can be conducted with larger sample sizes and in different healthcare settings.
- Comparative studies can be undertaken to evaluate the effectiveness of various teaching methods.
- Experimental studies using different educational interventions may be conducted among postnatal mothers.

Limitations

- The study was limited to a single setting with a relatively small sample size.
- Findings cannot be generalized to all postnatal mothers due to the use of a pre-experimental design.

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