



# A Study To Assess The Knowledge Of Postnatal Mothers Regarding Newborn Care In A Selected Hospital Of Delhi (HAHC) With A View To Disseminate Information.

Name of authors: Salma Amin<sup>1</sup>, Mohammad Alyas Shah<sup>2</sup>

<sup>1</sup>Nursing Lecturer, Florence Paramedical and Nursing College, Anantnag, Kashmir.

<sup>2</sup>M.Sc.Nursing student, Rufaida College of Nursing, Jamia Hamdard

Corresponding contributor: Ms. Salma Amin, Nursing Lecturer, Florence Paramedical and Nursing College, Anantnag, Kashmir.

## ABSTRACT

**Background:** The neonatal period is the most vulnerable time for a child's survival, and appropriate newborn care practices are essential to reduce morbidity and mortality. Postnatal mothers play a pivotal role in ensuring the well-being of their newborns. However, knowledge gaps related to newborn care practices persist, particularly in low- and middle-income countries.

**Objective:** To assess the knowledge of postnatal mothers regarding newborn care in a selected hospital of Delhi and to identify areas requiring targeted health education.

**Methods:** A descriptive cross-sectional study was conducted among 50 postnatal mothers admitted to the postnatal ward of a selected tertiary care hospital. Data were collected using a structured questionnaire that assessed knowledge in areas such as breastfeeding, cord care, immunization, thermoregulation, and hygiene. Descriptive and inferential statistics were used to analyse the data.

**Results:** The findings revealed that 34 out of 50 participants had average knowledge, 10 mothers had inadequate knowledge, and 6 postnatal mothers demonstrated adequate knowledge of essential newborn care.

**Conclusion:** The study highlights the need for structured health education programs for postnatal mothers, especially during antenatal visits and hospital stays, to bridge knowledge gaps and promote optimal newborn care practices. Strengthening maternal health education can contribute to improved neonatal health outcomes.

**KEY WORDS:** Newborn care, Postnatal mothers, Knowledge.

## INTRODUCTION

The neonatal period, defined as the first 28 days of life, is the most vulnerable time for a child's survival and development. Globally, an estimated 2.4 million neonatal deaths occur each year, with a significant proportion attributed to preventable causes such as infections, birth asphyxia, and complications related to prematurity (1). In India, despite progress in reducing child mortality, neonatal deaths continue to constitute a major public health concern (2). Essential newborn care (ENC), including practices such as immediate and exclusive breastfeeding, thermal protection, hygienic cord care, and timely immunization, plays a critical role in improving neonatal outcomes and reducing mortality (3).

Postnatal mothers, being the primary caregivers of newborns, are central to the implementation of ENC practices. Their knowledge and awareness directly influence newborn health and survival. However, studies have shown that gaps in maternal knowledge and misconceptions regarding newborn care are common,

particularly in low-resource settings (4).

Educating mothers during the postnatal period presents a valuable opportunity to promote evidence-based newborn care practices and ensure better health outcomes for both mother and child.

Delhi, as a metropolitan city with a diverse population, presents a unique healthcare environment where both advanced medical facilities and socioeconomic disparities coexist. Understanding the knowledge level of postnatal mothers regarding essential newborn care within this context is crucial for designing targeted educational interventions and strengthening maternal and child health services.

This study aims to assess the knowledge of postnatal mothers regarding essential newborn care in a selected hospital of Delhi, with the objective of identifying knowledge gaps and recommending strategies for effective health education and support during the postnatal period.

## Methodology

### Research Design:

A descriptive research design was adopted.

### Study Setting:

The study was conducted in the postnatal ward of Hakeem Abdul Hameed Centenary Hospital, New Delhi.

### Study population:

Postnatal mothers who had delivered in the hospital and were admitted in the postnatal ward during the data collection period.

### Sample Size:

50 postnatal mothers were selected for the study.

### Sampling Technique:

Purposive sampling technique was used to select participants who met the inclusion criteria.

### Inclusion Criteria:

- Mothers who delivered a live newborn and were within 1–7 days postpartum.
- Mothers who were willing to participate and gave informed consent.
- Mothers who were physically and mentally stable to respond.

### Exclusion Criteria:

- Mothers of neonates admitted to NICU or with severe complications.
- Mothers who were healthcare professionals or had extensive training in newborn care.

### Data Collection Tool:

Structured interview schedule was developed based on WHO guidelines and relevant literature. The questionnaire included:

- Section A: Demographic profile (age, religion, education, occupation, type of family, income, etc.)
- Section B: Knowledge assessment on key aspects of newborn care including:
  - Breastfeeding practices
  - Cord care
  - Immunization
  - Thermoregulation
  - Hygiene and infection prevention

### Validity and Reliability:

The tool was validated by a panel of experts in maternal and child health nursing. Reliability was tested using a pilot study on 10% of the sample, and Cronbach's alpha was found to be 0.82, indicating good internal consistency.

### Data Collection Procedure:

Data were collected through face-to-face interviews using the questionnaire. Each interview lasted approximately 20–30 minutes.

### Data Analysis:

Data were analysed using SPSS software. Descriptive statistics (frequency, percentage, mean, standard deviation) were used to summarize the knowledge levels.

### Ethical Considerations:

- Approval was obtained from the Institutional Ethics Committee.
- Informed written consent was obtained from all participants.
- Confidentiality and anonymity were maintained throughout the study.

## Results

### Section - I

**Table1: Frequency and percentage distribution of Postnatal mothers in terms of demographic variables:**

N=50

Demographic Variables	Frequency	Percentage
Age (in years)		
Below 20	5	10
21-25	29	58
26-30	13	28
>30	3	6
Religion		
Hindu	42	84
Muslim	7	14
Christian	1	2
Education		
Illiterate	18	36
Primary	17	34
Secondary	6	12
Higher secondary	6	12
Graduation	3	6
Occupation		
Housewife	45	90
Private sector	4	8
Government sector	1	2
Income (in Rs)		
≤ 5000	14	28
5001 – 10,000	29	58
10,001 – 20,000	6	12
≥20,000	1	2
Type of family		
Nuclear	21	42
Joint	26	52
Extended	3	6
Place of delivery		
Home delivery	11	22
Institutional delivery	39	78
Source of information		
Family	36	72
Friends	10	20
Magazines and health booklets	2	4
Media	2	4

**Section II****Table 2: Possible range of scores, range of scores obtained, mean, median and standard deviation of postnatal mothers regarding newborn care. (n = 50)**

Possible range of scores	Range of scores obtained	Mean	Median	Standard deviation
0 - 25	2 - 21	14.54	15	3.53

**Table 3: Category of knowledge scores, range of scores and its frequencies of postnatal mothers regarding newborn care. (n = 50)**

Category of knowledge scores	Range of scores	Frequency
Below average scores	0 - 5	10
Average scores	6 - 8	34
Above average scores	9 - 10	6

The data in Table 3 reveals that majority (34) of the postnatal mothers had average knowledge scores and only 6 postnatal mothers had above average knowledge scores regarding essential newborn care

**Discussion:**

The present study aimed to assess the knowledge of postnatal mothers regarding newborn care in a selected hospital setting. The findings revealed that a significant proportion of mothers (34) had moderate knowledge, while 10 postnatal mothers had inadequate knowledge and only 6 postnatal mothers had adequate knowledge of essential newborn care practices. These results indicate that although some mothers possess basic knowledge, critical gaps remain in key areas such as cord care, immunization schedules, and thermal protection.

The findings align with a study conducted by Patel et al., who found that only 20% of mothers had good knowledge regarding essential newborn care, especially in domains such as exclusive breastfeeding and prevention of neonatal infections [5]. Similarly, a study in Karnataka by Joseph et al. reported that most postnatal mothers had average knowledge scores and lacked information on safe cord care and immunization [6]. This consistent trend highlights a widespread need for strengthening maternal education programs.

In the current study, maternal education level and prior antenatal counselling were significantly associated with higher knowledge scores. This corroborates the findings of Sharma et al., who emphasized that women with higher education and access to health education during antenatal visits were more likely to adopt recommended newborn care practices [7].

Moreover, the study supports evidence suggesting that postnatal mothers often depend on traditional practices and familial advice, sometimes at the cost of evidence-based care. In a study by Agarwal and Chaudhary, 30% of mothers reported using substances like oil or herbal powders on the umbilical stump, unaware of infection risks [8].

Given the findings, it is crucial for healthcare providers to implement structured, need-based educational interventions during antenatal and postnatal periods. The use of visual aids, interactive counselling, and follow-up sessions could be instrumental in improving maternal understanding and reducing neonatal morbidity and mortality.

While this study provides valuable insights, limitations include the use of a non-random sampling technique and restriction to a single hospital, which may limit generalizability. Future studies could explore larger and more diverse populations and assess the effectiveness of specific educational interventions.

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