

Knowledge and Practices of Postnatal Mothers Regarding Newborn Care in a Selected Hospital in West Bengal

Dipa Ghosh¹, Subhra Rani Das^{2*}

Abstract

The health of newborns is significantly impacted by the extent of knowledge and behaviors exhibited by mothers in the postnatal period. By assessing the level of knowledge and practices, it is possible to predict the cause and reduce the rate of neonatal mortality and morbidity. A research investigation aimed at evaluating the understanding and routines of postnatal mothers regarding the care of newborns in a chosen hospital located in West Bengal. Quantitative research approach was undertaken. Institutional permission was taken. The sample was collected according to purposive non-probability sampling technique from 50 hospitalized postnatal mothers, who were admitted in Postnatal Ward of Ghatal S.D. and S.S. Hospital, Ghatal, Paschim Medinipur, West Bengal. Data were collected as per designated inclusion and exclusion criteria within a week through structured interview schedule and observation. Tool-I was for demographic variables. Tool-II has two parts, Part-A to assess the knowledge level and Part-B to assess the practice level of postnatal mother regarding newborn care. The findings of this study revealed that there were gaps in knowledge and practices of newborn care because of majority of mothers were primi gravida (60%) and type of delivery was LUCS (58%). The present study result revealed that postnatal mothers had adequate knowledge (78%) regarding newborn care but the practice levels were moderate (82%). This study concluded that newborn care is important which help to reduce newborn complications and we should aware the mothers about it. So, health education on essential newborn care should be integrated into routine antenatal services which help to improve newborn care practices. The other most important cause of this gapping in nowadays is the prevalence of corona virus pandemic situation. A comparative study can be done to assess the knowledge and practices level regarding newborn care among rural and urban mothers.

Keywords: Postnatal mothers, knowledge and practices regarding newborn care

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INTRODUCTION

A neonate or newborn refers to an infant who is less than 28 days old. The essential characteristics of healthy newborn include a term pregnancy (gestation 37 to 42 completed weeks), birth weight of 2.5 kg and above with spontaneous regular breathing and respiratory rate of 40 to 60 breaths/min, heart rate 100 to 160 beats/min, and body temperature around 97.5 to 99°F. Along with these, a healthy newborn should be able to suck after birth, pass urine and meconium within 48 and 24 h of birth respectively and having no congenital malformation [1].

Essential newborn care can be best given by the mothers under supervision of health care providers.

The recommended activities and precautions for parents and care givers are important factors of increasing neonatal health. India's health target was to reduce the infant mortality rate below 60 per 1000 live births, and the perinatal mortality rate below 85 per 1000 live births by 2000 AD [2].

The WHO and the Maternal and Child Epidemiology Estimation group estimated in 2020 that approximately 6,500 newborns die each day in their first month of life. On a worldwide scale, the neonatal mortality rate decreased from 40 per 1000 live births in 1990 to 18 per 1000 live births in 2020. According to a report by the United Nations Inter-Agency group for child mortality estimation, over 5.0 million children under the age of 5 years lost their lives in 2021, with 2.3 million of them being newborns. The majority of these fatalities are avoidable or can be addressed through medical intervention. So, we can prevent this massive death by knowledge and skillful practices around the time of birth [3]. The infant mortality rate plays an important role in health planning, which helped a considerable decline from 129 per 1000 live births in 1971 to 110 in 1981 and from 80 in 1991 to 33 in 2017 [4].

Newborn care is an essential care. Adequate thermoregulation, exclusive breast feeding, infection prevention and early detection of problems help to reduce infant mortality. Mother's knowledge and practices regarding newborn care forms the bench mark for child care. Hence, it is crucial to ascertain the comprehension and actions of postnatal mothers concerning the care of newborns.

In this connection, few questions triggered the investigators to think and look for the answers of these questions:

1. Does the lack of knowledge of mother affect the newborn care practice?
2. Is the newborn care influenced by the malpractices of the mother?
3. Does the health problems of newborn increase due to inadequate knowledge about newborn care?

Therefore, our chosen study aims to evaluate the understanding and behaviors of postnatal mothers concerning the care of newborns in a selected hospital in West Bengal.

PROBLEM STATEMENT

This study has been undertaken to evaluate the knowledge and practices of postnatal mothers regarding the care of newborns in a specific hospital in West Bengal.

OBJECTIVES

- To evaluate the level of understanding among postnatal mothers regarding newborn care.
- To ascertain the practices of postnatal mothers concerning newborn care.

OPERATIONAL DEFINITIONS

The key terms used in the title of the study can be defined as follows:

1. *Knowledge*: Refers to the level of understanding of postnatal mothers about essential newborn care as measured by their correct responses to knowledge in terms of questionnaire.
2. *Practice*: It refers to the care given by the postnatal mothers to newborn after birth as measured by their correct responses to practices items of questionnaire and observation.
3. *Newborn care*: Refers to the basic care to the new born which includes breastfeeding, baby birth and skin care, eye care, cord care, clothing of baby, and immunization.

REVIEW OF LITERATURE

Alemu and Eshete conducted a cross-sectional community-based research in Gedeo Zone, Southern Ethiopia, focusing on newborn care practices and the factors linked to them among lactating mothers [5]. 83 subject samples were selected by single population formula and multistage sampling techniques. Structured questionnaire was used for data collection. The study result revealed that, good newborn care practice among lactating mothers was 24.1% (95% CI: 2.5–9.7). The findings of this research were less favorable compared to the results of prior studies conducted in Northwest Ethiopia.

Fikree *et al.* in 2005, in Karachi, Pakistan, conducted a qualitative and quantitative study on newborn care practices in low socioeconomic settlements among 515 postpartum women [6]. This study result revealed that, breastfeeding initiations are better than expected and colostrum is discarded less frequently. Furthermore, essential newborn care like cord care, bathing, and massage are rare. Hence, newborns in low socioeconomic settlements are at high risk of sepsis and hypothermia.

Memon *et al.* conducted a cross-sectional survey involving 528 married women of reproductive age in Sindh, Pakistan, to investigate their knowledge, attitudes, and practices related to newborn care [7]. The study's findings indicated that 57% of the mothers were knowledgeable about Kangaroo care (skin-to-skin contact), and 57.1% of them actively practiced skin-to-skin contact. Furthermore, 51.8% of newborns were bathed within 6 h of birth. In this study, certain factors with a heightened risk were pinpointed. These factors included bathing the newborn immediately, using traditional substances on the umbilical cord, delaying the initiation of breastfeeding, disposing of colostrum, and introducing pre-lacteal feeds to newborns. Also, this study revealed that some socio-demographic factors like level of education of mothers, place of residence had significant effect on newborn care [8–10].

RESEARCH METHODOLOGY

In the present study, non-experimental survey method was adopted to accomplish the objectives.

Population

Samples for the present study were hospitalized postnatal mother, meeting the designated inclusion and exclusion criteria and available at the time of data collection period in Postnatal Ward of Ghatal SD & SS Hospital, Ghatal, Paschim Medinipur, West Bengal.

Sample

Hospitalized Postnatal Mothers.

Sample Size

In this study, total sample size was 50 because per day average 8 postnatal mother were admitted in Postnatal Ward, but, among them, per day only 7 mothers met the designated inclusion and exclusion criteria. Due to time constraints, the current study utilized a sample size of 50.

Sampling Technique

Purposive non-probability sampling technique was adopted because samples were chosen from Postnatal Ward of Ghatal S.D.&S.S. Hospital, Ghatal, Paschim Medinipur, West Bengal, which mothers were willing to participate and who were fulfilling the pre-determined criteria (Figure 1).

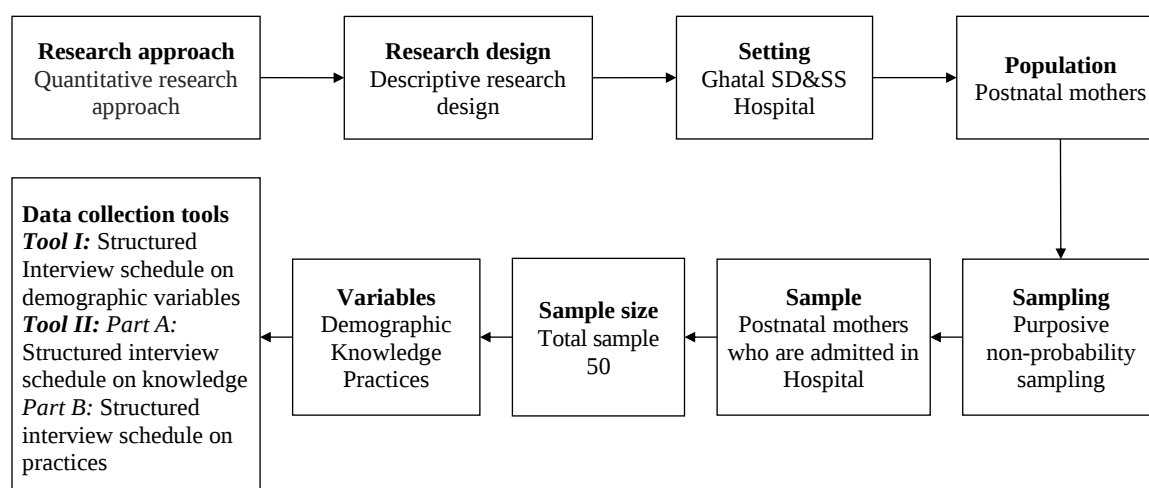


Figure 1. Systematic diagram of research methodology.

Description of the Tool

The total tool had two parts: Parts I and Part II. Part I was Structured Interview Schedule regarding Demographic Variables. Part II again divided into two parts i.e., Part II (A) and Part II(B) which were used to assess knowledge and practices of newborn care among postnatal mothers.

Part I: Demographic Variables

It was regarding demographic profile of the newborns and postnatal mothers. It consisted four items describing newborn's age, sex, birth weight, birth order and seven items describing mothers' age, gestational age, type of delivery, educational status, income of family (per month), religion, parity.

Part II (A): Proforma of Knowledge Level of Postnatal Mother Regarding Newborn Care

This tool was to assess the knowledge level of postnatal mother regarding newborn care through the mothers' response to interview. This tool consists 21 questions and the total scoring is 21 (inadequate knowledge is up to 10, moderate is 11–15 and adequate is >15).

Part II (B): Proforma of Practice Level of Postnatal Mother Regarding Newborn Care

This tool was to assess the knowledge level of postnatal mother regarding newborn care through the mothers' response to interview observation. This tool consists 19 questions and the total scoring is 27 (inadequate practice is up to 13, moderate is 14–20 and adequate is >20).

RESULT AND INTERPRETATION

Discussion Related to Demographic Distribution of Newborns

The present study showed that the majority of newborn babies 66% is <3 days old, 66% are baby boys, 90% babies' birth weight is >2000 gm and 60% are 1st born baby.

Discussion Related to Demographic Distribution of Postnatal Mothers

The study revealed that 78% postnatal mothers belongs to 18–25 years, 86% mothers' gestational age is >37 weeks and 58% mothers delivered their babies by with LUCS. 60% mothers have secondary education, no mother is illiterate. 66% mothers' family income per month is between Rs. 5000 and 10000. It also showed that 88% mothers are Hindu and among all the mothers, 60% are primi gravida.

Discussion Related to Knowledge Level of Postnatal Mothers Regarding Breastfeeding

The study explains that 70% of mothers have knowledge about position maintained during breastfeeding, 68% mother have no idea about colostrum, 94% mother have knowledge about maintaining personal hygiene, 100% babies are with mother (Figure 2).

Discussion Related to Knowledge Level of Postnatal Mothers about Baby Bath and Skincare

The study presents that 70% mothers have knowledge about sun drying, 58% have no knowledge about oiling during bathing, 62% have no knowledge about cleaning immediately after birth.

Discussion Related to Knowledge Level of Postnatal Mothers Regarding Eye Care

The study shows that 92% mothers have knowledge about care of baby's eyes, 86% have no knowledge about applying kajol is safe or not, 94% have no knowledge about eye infection.

Discussion Related to Knowledge Level of Postnatal Mothers about Care of Umbilical Cord

The study describes that 76% mothers have no knowledge about bathing before umbilical cord fallen off, 84% mother have knowledge about care of umbilical cord (Figure 3).

Discussion Related to Knowledge Level of Postnatal Mothers about Clothing of the Baby

The study indicates that 78% of mothers leave their babies naked after birth, 86% of mothers are aware that wearing unwashed clothes is not safe, and 100% of mothers are knowledgeable about the importance of dressing their babies in soft, clean, cotton clothes.

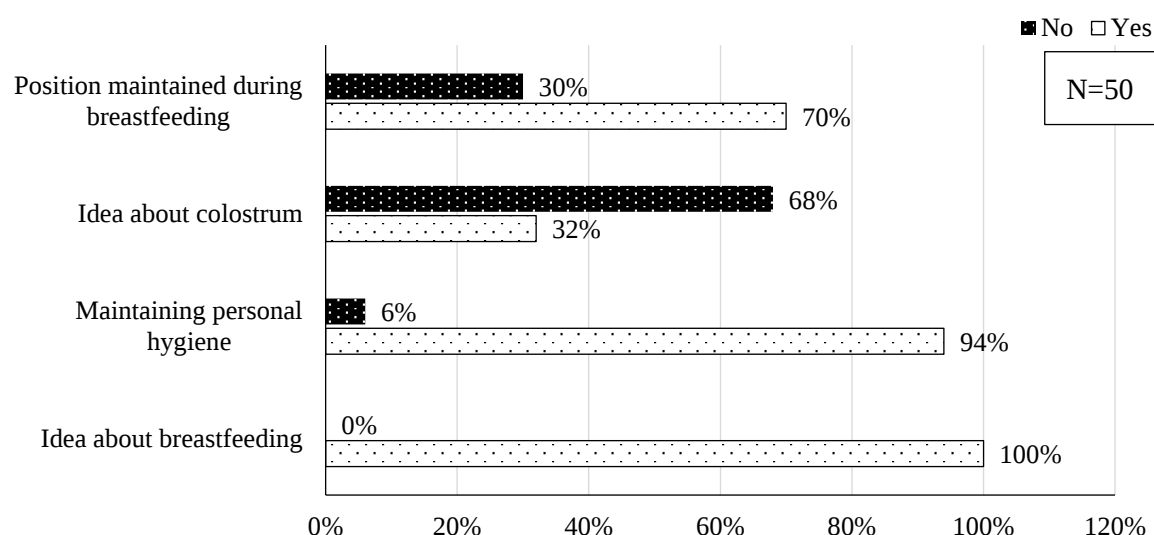


Figure 2. Bar diagram shows percentage distribution of postnatal mother's level of knowledge about breastfeeding.

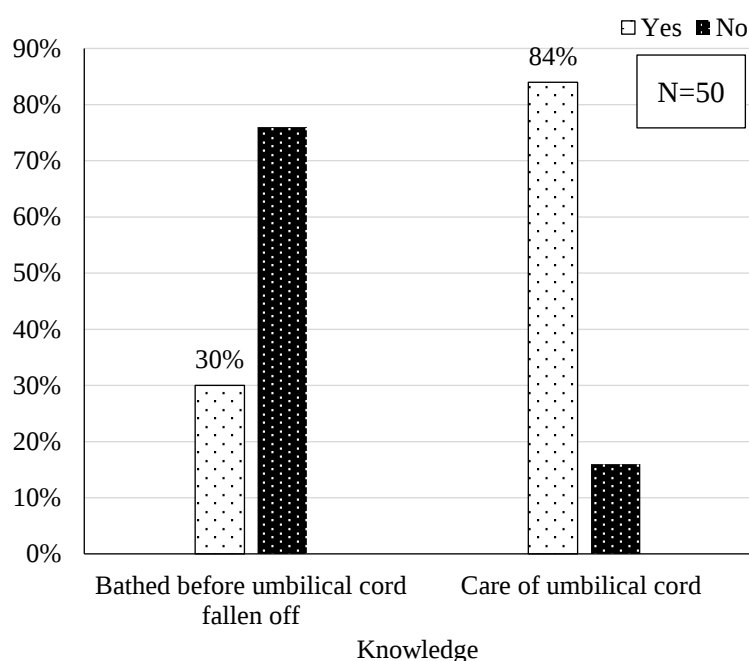


Figure 3. Diagram shows percentage distribution of knowledge level of postnatal mothers about care of umbilical cord.

Discussion Related to Knowledge Level of Postnatal Mothers about Immunization

The study discloses that 84% mothers know about importance of immunization, 86% babies are immunized immediately after birth, 94% mothers' knowledge about every vaccine is helpful, 90% have knowledge about timely vaccination is crucial, 69% have idea about after effect of immunization.

Discussion Related to Practice Level of Postnatal Mothers about Breastfeeding

The study represents that 74% of mothers initiated breastfeeding within 1 h, 84% mothers maintained personal hygiene and 58% mothers maintained proper latching, 52% mothers maintained sitting position and 48% mothers maintained lying position, 96% mothers maintained 1–2 h interval in breastfeeding.

Discussion Related to Practice Level of Postnatal Mothers Regarding Baby Bath and Skin Care

The study reveals that 62% of babies are not bathed immediately after birth, 60% of babies receive an oil massage during bathing, 68% of babies are sun-dried, and 54% of babies are powdered in summer.

Discussion Related to Practice Level of Postnatal Mothers Regarding Eye Care

The study represents that 82% mothers practice regular eye care and 98% mothers do not apply kajol.

Discussion Related to Practice Level of Postnatal Mothers about Care of Umbilical Cord

The study shows that 92% mother do not apply anything in umbilical cord and 62% babies are not bathed before umbilical cord is fallen off.

Discussion Related to Practice Level of Postnatal Mothers Regarding Clothing of the Baby

The study presents that 100% of babies are dressed with soft cotton and seasonal clothes, it also represents that 98% mothers change napkin immediately and 58% mothers maintained warmth by wrapping with clean cloth and 42% mothers maintained warmth by skin to skin contact.

Discussion Related to Practice Level of Postnatal Mothers Regarding Immunization

The study shows that 100% newborn babies are immunized with OPV, BCG and Hep-B, 92% mothers do not apply anything at vaccination site and 68% have idea regarding next vaccination.

Discussion Related to Different Levels of Knowledge and Practices Regarding Newborn Care

The study shows that 78% mothers have adequate knowledge, 22% mothers have moderate knowledge and 0% mothers have inadequate knowledge regarding newborn care (Figure 4).

It also represents that 16% of mothers practice adequately, 82% practice moderately and 2% practice inadequately. Thus, in spite of their adequate knowledge level, their practices are not considerably sufficient (Figure 5).

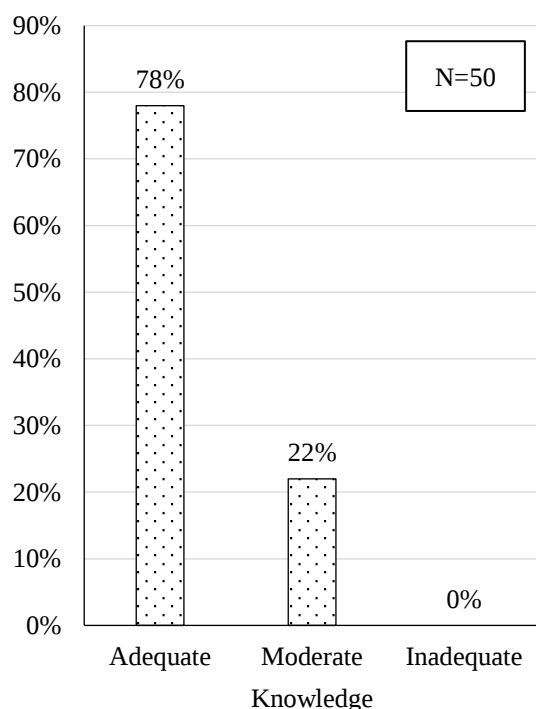


Figure 4. Bar diagram shows percentage distribution of knowledge regarding newborn care.

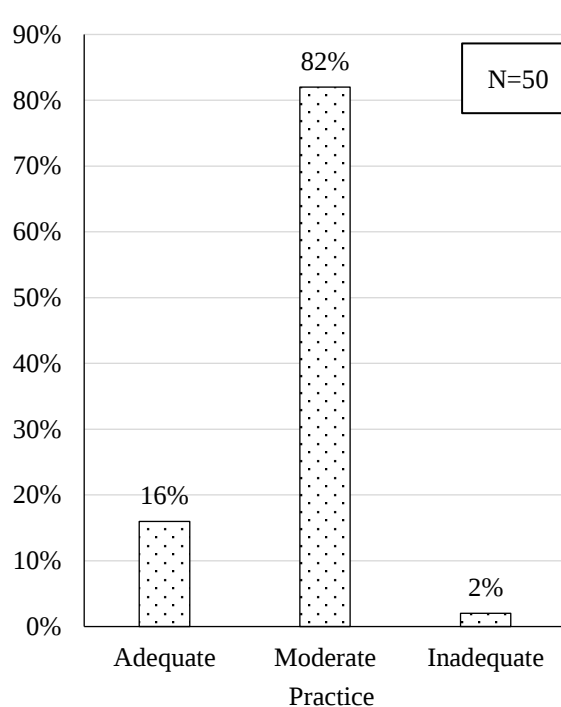


Figure 5. Bar diagram shows percentage distribution of practices regarding newborn care.

CONCLUSION

The findings of this study revealed gaps in knowledge and practices for newborn care. Significant gaps were found in breastfeeding, baby bath, skin care, eye care, cord care, and immunization of newborns care mainly because of majority of mothers are primi and type of delivery is LUCS. Therefore, emphasis should be made on these components by increasing frequency of ANC and PNC visits help to enhance the knowledge and practices of newborn care. Promotion of institutional delivery and postnatal visits for both mothers and newborns and regular follow-up visits at home help to improve newborn care. Adequate knowledge and practices of newborn care among mothers and family members help to reduce infant mortality and morbidity rate.

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