Acta Scientific Women's Health (ISSN: 2582-3205)

Volume 7 Issue 9 September 2025

Research Article

What Women Know About Neonatal Care and What they Practice in an Underprivileged Community of Bangladesh

Abu Sayeed Md Abdullah[1,2]*, Farjana Haq[3], Sumaiya Afroze Khan Atina[1], Md Mostafezur Rahman[1] and Md Abdul Halim[1]

[1]*Reproductive and Child Health (RCH) Division, Centre for Injury Prevention and Research, Bangladesh (CIPRB), Dhaka, Bangladesh*

[2]*Department of Public Health Science, School of Health Sciences, Mid Sweden University (MIUN), Sundsvall, Sweden*

[3]*Individual Consultant, Dhaka, Bangladesh*

***Corresponding Author:** Dr. Abu Sayeed Md. Abdullah, Centre for Injury Prevention and Research, Bangladesh (CIPRB), Dhaka, Bangladesh. **Phone:** +8801716627384, **Email:** sayeed@ciprb.org/ abuabd2400@miun.se

Received: July 23, 2025

Published: August 04, 2025

Abstract

Introduction: Neonatal health in marginalized teagarden community is very much negligible and poor than many other areas in Bangladesh. The study explored knowledge and practices on neonatal health of women at reproductive age in the teagarden community of Moulvibazar district, Bangladesh.

Methods: A mixed method used both quantitative and qualitative approaches. A cross sectional survey was conducted in 25 purposively selected gardens in Moulvibazar district to obtain quantitative information. 529 mothers aged between 15-49 years who had a live birth between 01 March 2015 and 29 February 2016 were interviewed. To get qualitative data, 06 focus group discussions (FGDs) were conducted with the same group of women in purposively selected five teagardens following a structured guideline. Descriptive analysis for quantitative data and thematic analysis for qualitative data were performed.

Results: The study found that 63.9% of women didn't know about essential newborn care include wrapping and warming within first 24 hours. About 38% mothers were allowed to bath their babies within first 24 hours. Only 38% women give breast feeding to newborn within 30 min after birth. Whereas,17.2% mothers give other foods than the breast feed immediately after birth. Qualitative findings have shown that the families do the traditional practices by providing honey and sweet to neonates immediately after born. 51 % women used various substances on stump after cutting of umbilical cord. Qualitative findings explored that some of them didn't allow cutting the umbilicus by the person whose title is lower cast to touch the baby. Some of them didn't know to cut umbilical cord until removal of placenta. Family members also put mustard oil with hot garlic at neonatal umbilicus. They applied ash dust and goat's feces at neonatal umbilicus to take care of umbilicus. Some of them identified administrate hot oil to the ear of neonates up to 21 days after delivery. About 77.5 % women didn't know about neonatal complications. They firstly depended on traditional birth attendant during any complications. Then they depended on unqualified health provider at community like village doctors and Kabiraj. They didn't want to go at facility due to misperception about the services at facility. Insufficient money and transportation problem also discouraged them to go at facility.

Conclusion: Although there is a good progress in improving neonatal health situation in Bangladesh, much improvement is required for essential newborn care. Under privileged community is behind of adequate knowledge on newborn care, believe, traditional practices and myth also identified as key challenges. Intervention focused on the underprivileged group addressing the gaps and challenges can improve overall newborn health and quality of life.

Keywords: Women's Knowledge; Neonatal Care and Practice; Underprivileged Community; Bangladesh

Background

Neonatal care plays a crucial role in reducing infant morbidity and mortality, particularly in low-resource and underserved settings like the teagarden communities of Bangladesh. These remote and marginalized communities, largely located in the Sylhet division, are characterized by poor access to healthcare, low literacy levels, poverty, and deeply rooted cultural traditions—factors that significantly influence maternal and newborn health outcomes.

Despite progress in reducing under-five mortality in Bangladesh, neonatal mortality remains a significant challenge, contributing to over 60% of infant deaths nationally [1]. The situation is more acute in hard-to-reach populations such as the tea garden workers, most of whom are descendants of laborers brought during the colonial era and remain socioeconomically disadvantaged. Women in these communities often lack access to timely and accurate information on essential newborn care (ENC), which includes practices like thermal protection, hygienic cord care, exclusive breastfeeding, and early recognition of danger signs.

Several studies have highlighted a gap between knowledge and practice among mothers in rural and marginalized communities in Bangladesh. For instance, while some women may know the importance of early breastfeeding, they still resort to giving prelacteal feeds like honey or sugar water due to traditional beliefs [2]. Similarly, the practice of early bathing of newborns, driven by perceptions of cleanliness, persists despite the known risks of neonatal hypothermia [3].

Hygienic cord care is another area where harmful practices are prevalent. Application of substances like mustard oil, ash, or turmeric is common in teagarden areas, increasing the risk of omphalitis and sepsis [4]. These practices reflect a combination of limited health literacy, poor access to health services, and strong reliance on traditional birth attendants (TBAs) and family elders for advice.

Moreover, awareness of neonatal danger signs, such as difficulty breathing, convulsions, or refusal to feed, is alarmingly low among women in teagarden communities. In many cases, delays in seeking care are linked to sociocultural factors, lack of decision-making power, and physical inaccessibility to formal health facilities [5]. Consequently, many families resort to home remedies or consult untrained traditional healers.

Although Bangladesh has made strides in deploying community health workers (CHWs) and promoting skilled birth attendance, the reach and effectiveness of these services in tea estate areas remain limited due to understaffing, logistical barriers, and language or cultural disconnects with indigenous communities [6].

Women in underprivileged teagarden communities of Bangladesh often exhibit mixed and inadequate knowledge regarding essential neonatal care, with significant discrepancies between recommended evidence-based practices and their actual caregiving behaviors. Studies have documented those traditional beliefs, limited formal education, and restricted access to healthcare services contribute to the persistence of harmful practices—such as early bathing of newborns, delayed initiation of breastfeeding, and application of unclean substances to the umbilical stump [7-9].

Addressing these disparities necessitates culturally tailored interventions that consider the unique socio-cultural context of teagarden workers. Strategies should include community mobilization, strengthened maternal and child health services, and the empowerment of women through education and behavior change communication. Evidence suggests that participatory approaches and local engagement are particularly effective in improving newborn care practices in marginalized settings [9-11].

The study aimed to assess the extent of awareness, cultural beliefs, and caregiving behaviors influencing newborn care practices in this underprivileged population, with a focus on identifying existing gaps and harmful traditional practices that may hinder optimal neonatal health outcomes.

Methods

- **Study Design and Setting:** A mixed-methods study was conducted in the Moulvibazar district of Bangladesh, combining both quantitative and qualitative approaches to assess maternal and newborn care knowledge and practices in teagarden communities. The study was carried out between March 2022 and February 2023.
- **Quantitative Component:** For the quantitative part, a cross-sectional survey was conducted in 25 purposively selected teagardens. The selection was based on accessibility and population size. A total of **529 mothers**, aged 15–49 years, who had a live birth within the one-year period preceding the survey (01 March 2015 and 29 February 2016), were interviewed using a structured questionnaire. The survey aimed to capture demographic information, antenatal and postnatal care-seeking behavior, essential newborn care practices, and experiences of neonatal complications.
- **Qualitative Component:** The qualitative component aimed to explore in depth the cultural beliefs, practices, and community-level factors influencing maternal and newborn care. A total of **six Focus Group Discussions (FGDs)** were conducted with women from five purposively selected teagardens. Participants were drawn from the same population as the survey group. Each FGD followed a structured guideline and consisted of 8–10 participants. Discussions covered topics such as newborn care practices (timing of first bath, cord care, breastfeeding practices), recognition and response to neonatal complications, and the role of family and community members during maternal and neonatal emergencies.
- **Data Collection:** Data collection was conducted by trained research officers with prior experience in community-based studies. For the survey, face-to-face interviews were held using pretested structured questionnaires. For the FGDs, the discussions were facilitated by one research officer while another took detailed notes. All FGDs were audio-recorded with participants' consent and conducted in the local language in a neutral community setting.
- **Data Analysis:** Quantitative data were entered, cleaned, and analyzed using descriptive statistics to summarize participant characteristics and key indicators of maternal and newborn care practices. For qualitative data, thematic analysis was performed. Audio recordings from FGDs were transcribed verbatim, and transcripts were reviewed to identify recurring themes and patterns. Coding was done manually, with emerging codes grouped into categories and sub-categories, which were then interpreted in the context of existing maternal and newborn care frameworks.
- **Ethical Considerations:** Ethical approval was obtained from the National Ethical Review Committee of the Centre for Injury Prevention and Research, Bangladesh. Written informed consent was obtained from all participants prior to interviews or discussions. Participation was voluntary, and confidentiality and anonymity were strictly maintained throughout the study process.

Results

The result section describes the essential Newborn Care Period of first bath after birth, Use of substance on stump after cutting umbilical cord Breast feeding Period of time after birth, Breastfeeding practices, Neonatal Complication Practice on neonatal care and complication, Role of community people during maternal and neonatal complication, and practice on neonatal care and complication.

Overall findings

The findings of the study revealed that community knowledge and practices on essential newborn care in the teagarden areas were mixed, with some harmful traditional practices persisting. The majority of respondents reported giving the newborn a bath within a few hours of birth, despite recommendations to delay bathing to prevent hypothermia. Application of substances such as mustard oil or turmeric on the umbilical stump was a common practice, reflecting cultural beliefs rather than hygienic care. While most mothers-initiated breastfeeding within a few hours of delivery, exclusive breastfeeding practices varied, with some giving prelacteal feeds like honey or sugar water. Awareness about neonatal

complications—such as difficulty breathing, fever, and infections—was limited, and families often relied on traditional healers or delayed seeking care from formal providers. Community members, particularly family elders and traditional birth attendants, played a significant role in decision-making during maternal and neonatal complications, sometimes contributing to delays in appropriate care-seeking. Overall, the study highlighted gaps in essential newborn care practices and the need for targeted community education and engagement to promote evidence-based neonatal care and timely management of complications.

Essential newborn care

It was found that that 83.9% of newborn babies didn't received essential newborn care wrapping and warming within first 24 hours & 11.2 63.9% women don't know about wrapping and warming of newborn immediately after birth. It was also found that 51 percentage of substances used by the mother on stump after cutting of umbilical cord where 7% mothers can't remember or don't know either use of any substance on stump. The community people had limited idea on maternal and neonatal complication. They firstly depended on traditional birth attendant during any complication. Then they depended on unqualified health provider at community like village doctors and Kabiraj. They didn't want to go at facility due to misperception about the services at facility. Insufficient money and transportation problem also discouraged them to go at facility.

During FGD one of the participants said "male had limited role during maternal complication. We first communicate with TBA and village doctor then called to the hospital staff with their advice. If they failed and said to take Upazila or district hospital then we decide to take there but it is difficult to manage money and vehicle to transport the mothers".

About 38% newborns were allowed to bath within 24 hours after birth where 25% conducted within 6 hours after birth. About 7% women did not know about the period of bath of neonates after birth [Figure 1].

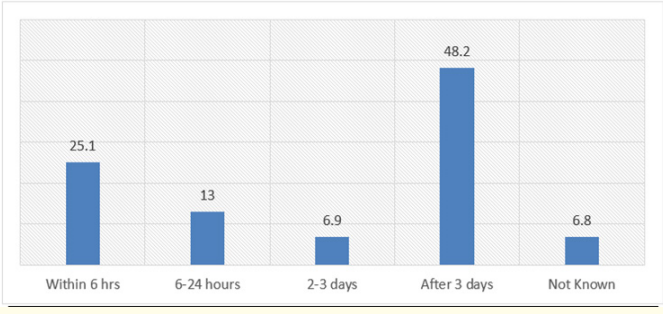

Figure 1: Distribution of newborn according to the time of their first bath.

During FGD one of the participants said "We don't allow to cut the umbilicus by the person whose title is lower class though allowed her to delivery. Even we wait to cut the umbilicus after removal of placenta. The neonates are allowed to put oil at ear up to 21 days for their better hearing".

Breast feeding

It was found that 88.9% mothers did not provide colostrum to neonates. 17.2 percent mothers allowed providing others food before breast feed. 27.2% mothers provided additional feed to neonates beside breast feeding within 06 months after birth whereas 1.7% didn't remember whether they provided any feed or not.

Only 38 percent mothers allowed breast feeding within 30 min after birth. 58% mothers provided breast feeding after 30 min where 7.7 percent one day after birth. 1.9 percent mothers can't memorize and 1.3% mothers never allow neonates for breast feeding [Figure-2].

The community people practiced in allow to bath of neonates immediately after birth. They also allowed providing honey and sweet to neonates immediately after birth. They also put hot mustard oil at neonatal umbilicus. They also depended on traditional health provider for treatment during neonatal complication.

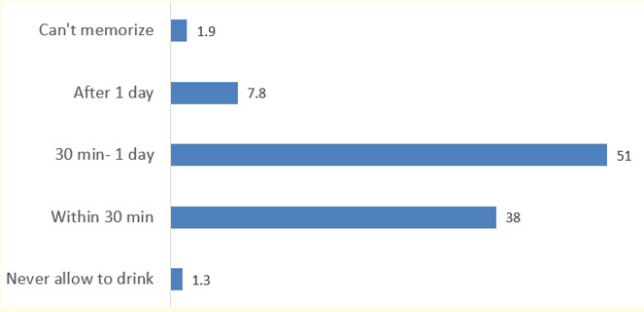

Figure 2: Distribution of newborn according to the time of initiation of breast feeding.

During FGD one of the male guardian said "Colostrums is not normally provided to neonates. Even allowed to feed honey and sugar water to new born baby before breast feeding as they believe the sweet food may make the baby to talk nicely in future. Hot fomentation is provided to umbilicus for quick heal".

Neonatal complication

It was found that 77.5% women did not know about neonatal complication, where 22.5 percent cases responded the sickness of baby during neonatal period. The major neonatal complication included fever (10.2%), acute respiratory distress (5.9%), vomiting (3%) and diarrhea (3.2%) where 2.5 percentage women didn't know about neonatal complications.

The community people had some social restriction to cut the umbilicus of neonates. There are some demarcations of title among the people to allow for cutting umbilicus. Some titled people allowed to assist delivery but not to cut umbilicus and wait until their desire titled people. The teagarden community didn't allow cutting umbilicus of new born until removal of placenta. They provided ash and goat's feces at neonatal umbilicus as neonatal care. They also provided hot oil to neonatal ear up to 21 days after delivery.

During FDG one of the participants said "Neonates are allowed to bath immediately after birth and also provided the sweet water and honey before breast feeding. We also provided the mastered oil at neonatal umbilicus".

Discussion

The study findings reflect a complex interplay of traditional beliefs, cultural norms, and limited access to health education in shaping essential newborn care (ENC) practices in teagarden communities. While some beneficial practices such as early initiation of breastfeeding were observed, several harmful or suboptimal behaviors persist, highlighting significant gaps in knowledge and practice.

A majority of respondents reported bathing newborns within a few hours of birth, a practice contrary to WHO guidelines recommending delayed bathing for at least 24 hours to prevent hypothermia and infection [3]. Early bathing can lead to a drop in neonatal body temperature, especially in low-resource settings without access to thermal protection. This practice likely stems from cultural perceptions of cleanliness rather than medical understanding of thermoregulation in newborns [12].

The widespread application of mustard oil, turmeric, or other substances on the umbilical stump aligns with longstanding traditional beliefs but contradicts evidence-based recommendations. WHO promotes dry cord care or use of chlorhexidine in high-risk settings to prevent neonatal infections such as omphalitis [3]. Application of unsterile materials may increase the risk of local or systemic infections, reflecting an urgent need for culturally sensitive behavior change communication (BCC).

While early initiation of breastfeeding was relatively high—a positive indicator—exclusive breastfeeding (EBF) rates varied. Pre-lacteal feeding with substances such as honey or sugar water was commonly reported. These practices delay the intake of colostrum, which is rich in antibodies and crucial for neonatal immunity [13]. Pre-lacteals not only displace breast milk but also expose neonates to contaminants and allergens [14].

Community members demonstrated limited awareness of neonatal danger signs such as respiratory distress, fever, or signs of

sepsis. This lack of recognition contributes to delayed care-seeking and reliance on informal or traditional healers, a phenomenon documented in other rural or marginalized settings [5]. These delays are critical, as timely identification and treatment of neonatal complications are essential for survival.

The influence of TBAs and elder family members in maternal and newborn decision-making emerged as a significant factor. Although these individuals are respected within the community, their knowledge is often rooted in traditional rather than evidence-based practices. Studies in South Asia have shown that involving TBAs and elder women in structured community health interventions can be effective if they are trained and supported to deliver appropriate messages [15].

The findings underscore the need for context-specific, culturally appropriate interventions to improve ENC. Community-based education, use of community health workers (CHWs), and integration of traditional influencers into health promotion strategies are vital. Interventions should focus on promoting delayed bathing and hygienic cord care, encouraging EBF and discouraging harmful pre-lacteal feeding, building awareness around neonatal danger signs and prompt care-seeking, and training and integrating TBAs into formal healthcare linkages. Evidence from other low-resource contexts suggests that community mobilization and participatory learning can significantly improve newborn health outcomes [16].

Conclusion

The study highlights that maternal health care practices in the teagarden communities are heavily influenced by superstitions, myths, and a lack of awareness. Women and their families often rely on fate rather than seeking professional care during pregnancy and complications. Socio-economic hardship, financial constraints, family traditions, and limited knowledge significantly hinder access to maternal health services. The tendency of pregnant women to hide their pregnancy, continue heavy work until delivery, and the discrimination faced by non-registered pregnant workers further deepen their vulnerability. These findings underscore the urgent need for community-based awareness programs and policy interventions to improve maternal health care utilization in these underprivileged communities.

Bibliography

1. NIPORT & ICF. "Bangladesh Demographic and Health Survey 2017-18" (2020).

2. Kabir M., *et al*. "Traditional newborn care practices and their determinants in rural Bangladesh". *BMC Pediatrics* (2022).

3. World Health Organization. "Postnatal care of the mother and newborn" (2013).

4. Uddin M E., *et al*. "Harmful traditional practices affecting newborn health in Bangladesh: a qualitative study". *Global Health Action* 14.1 (2021).

5. Syed U., *et al*. "Delayed access to care and missed opportunities in neonatal deaths in Sylhet district, Bangladesh". *PLOS ONE* 6.8 (2011): e17574.

6. Rahman A E., *et al*. "Community-based approaches to neonatal survival in Bangladesh: an overview of health system challenges". *Health Policy and Planning* 33.3 (2018): 291-302.

7. Chowdhury ME., *et al*. "Neonatal mortality in Bangladesh: Where, when, and why". *Journal of Health, Population and Nutrition* 29.2 (2011): 95-103.

8. Khanam R., *et al*. "Barriers to maternal and newborn health care in the teagarden communities of Bangladesh". *BMC Pregnancy and Childbirth* 20 (2020): 279.

9. Biswas A., *et al*. "Exploring the perceptions, practices and challenges to maternal and newborn health care among the underprivileged teagarden community in Bangladesh: A qualitative study". *Sexual and Reproductive Health Matters* 28.1 (2020): 1758443.

10. Haque R., *et al*. "Community engagement in improving maternal and newborn health in tea garden areas: A qualitative study". BRAC University (2018).

11. Ahmed S., *et al*. "Culturally sensitive interventions to improve neonatal care in rural Bangladesh: A review of community-based strategies". *International Journal for Equity in Health* 21.1 (2022): 98.

12. Lawn J E., *et al*. "Every Newborn: progress, priorities, and potential beyond survival". *The Lancet* 384.9938 (2014): 189-205.

13. UNICEF. "Why breastfeeding is so important" (2021).

14. Edmond K M., *et al*. "Delayed breastfeeding initiation increases risk of neonatal mortality". The Lancet 367.9525 (2006): 950-953.

15. Bhutta Z A., *et al*. "Community-based interventions for improving perinatal and neonatal health outcomes in developing countries: a review of the evidence". *The Lancet* 377.9763 (2011): 967-980.

16. Prost A., *et al*. "Women's groups practising participatory learning and action to improve maternal and newborn health in low-resource settings: a systematic review and meta-analysis". *The Lancet* 381.9879 (2013): 1736-1746.