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**Maternal and newborn care practices among ultra poor households: A
qualitative exploratory study**

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INTRODUCTION

The health of women around the time of delivery remains a major concern in Bangladesh although the maternal mortality ratio (MMR) has declined from 574 in 1990 to 320 per 100,000 live births in 2004. Taking into consideration the trend, maternal health status is apparently approaching the targets set for the MDGs. In spite of this progress, about 12,000 women still die each year during child birth (NIPORT 2003). The estimated lifetime risk of dying from maternal causes in Bangladesh is about 100 times higher than that of developed countries (NIPORT 2003). On the other hand, newborn care is also of immense importance to the survival, proper development and healthy life of a baby. Although childhood mortality in Bangladesh has decreased substantially during the last decade, the neonatal mortality rate is still high, contributing to almost two-thirds of infant deaths in this country. Furthermore, two-thirds of neonatal deaths take place within the first week of life (Sabir 2003). These maternal and neonatal deaths could be seriously addressed if there is informed demand for, and provision of quality promotive, preventive and curative maternal and neonatal care services.

Several studies were done on the rural poor of Bangladesh to uncover the underlying causes of existing community maternal and neonatal care practices (Sabir 2003, Barnett 2006). However, none of the studies focused on the extreme poor –the ultra poor population as they are called- despite the fact that they cover nearly one quarter to one third of the countries population. These ultra poor people are often excluded from government and even from the non-governmental poverty reduction programmes like micro finance. To reach the ultra poor, BRAC has undertaken a comprehensive programme in 2002, called Challenging the Frontiers of Poverty Reduction-Targeting the Ultra Poor (CFPR-TUP), which aims to incorporate previously excluded groups into mainstream development programmes through livelihood development by mixing promotional and protective supports. Aimed at those who could not join conventional micro-credit and other development programmes, beneficiaries are provided with income-generating assets, free health-care services for all the household members in case of illness, and a subsistence allowance. The allowance aims to reduce their dependence on daily labour and allows them to focus on generating income from supported enterprise. The beneficiaries are selected through a rigorous targeting mechanism, which includes geographical, participatory and individual criteria based targeting tools.

The health component of the CFPR-TUP programme is an important element and consists of two strategies: provision of basic health-care services along with information to raise awareness of health-related issues, and the provision of financial assistance for clinical care if required. These strategies are implemented through a local Programme Organizer (PO), who visits participants once a month, documents participant and family health, provides feedback on disease prevalence and disseminates awareness messages on various topics such as safe water and sanitation, pregnancy-related care, family planning, immunization, tuberculosis etc. In the case of illness, the PO prescribes appropriate solutions if possible and refers participants to local health facilities if necessary. In a referral, the PO accompanies the patient during their visits and explains the symptoms and case history to the medical practitioners. In case of hospitalization, the PO visits the patient daily.

From empirical analyses, the factors associated with reduced rates of maternal and neonatal mortality include antenatal care, birth preparedness, safe delivery practices, prevention of hypothermia for neonate, early breastfeeding and early care-seeking behaviour (Barnett 2006). Qualitative anthropological or exploratory studies help to further understand the reasons behind these practices. This study sought to provide an exploratory description of maternal and newborn care practices among the ultra poor households of rural Bangladesh and to reveal their underlying socioeconomic, cultural and behavioural determinants. Identifying current maternal and newborn care practices is the first step in preparing a foundation for the design and development of a Behavioural Change

Communication (BCC) programme. Understanding the degree to which women and their families would be willing to accept new practices, i.e., knowing what changes they would make under what conditions is essential to crafting realistic, relevant behaviour change messages.

MATERIALS AND METHODS

The CFPR-TUP programme was launched in three districts (Nilphamari, Rangpur, and Kurigram) of northern part of Bangladesh in 2002. Rangpur and Kurigram districts were included for this study. Nilphamari was excluded since a comprehensive Maternal, Neonatal and child health (MNCH) programme was launched in 2005 in Nilphamari district. Two different TUP cohorts from these two districts: selected 2002 TUP cohort and selected 2007 TUP cohort were included in the study. To know the practices and rituals during pregnancy, delivery, and after birth the study populations were lactating mothers with child aged less than one year and pregnant women who had already delivered at least once.

Nine branch offices from nine unions were purposively selected where we could get both 2002 and 2007 TUP cohorts. From each of the branch offices BRAC registers were used to randomly select two-three respondents. Among 2007 TUP cohorts a few women were there who had not yet received any asset, but were selected as TUP beneficiaries. These women were identified for interviewing with the help of data collectors for participatory rural appraisal (PRA) that was ongoing in the area and by networking with other informants and people of the village. Therefore, a total of 20 women, 12 lactating mothers and 8 currently pregnant women were finally interviewed.

The data was collected during October-December 2007. Data collection relied primarily on interview-based methods, with all interviews conducted in Bangla. Interviews were based on a semi-structured interview guide with extensive probing to explore issues in detail and to improve the reliability of information. All the interviews were recorded and transcribed on the same day. The interviews were conducted by two experienced anthropologists. Although we intended to use participant observation, an anthropological technique, to obtain and validate data, this was not possible due to resource constraints.

RESULTS

A number of themes on maternal and newborn care emerged from the interviews with the mothers. This report is divided into two main sections, the first part discusses in detail the practices and experiences related to pregnancy, delivery and postpartum care, and the second section outlines newborn care practices. The majority (74%) of the women was in their twenties, 10% were aged less than 20 years, 16% were in their thirties. Most of the interviewees were Muslim. Non-farming labour, like rickshaw pulling, was one of the most common household occupations. Most of them lived in very poor hygienic conditions which included no access to sanitary latrine, safe drinking water and poor household condition.

SECTION-I

Women generally remain active throughout their pregnancy. There are plenty of rules about behaviour during pregnancy. Traditionally, mother and newborns are typically confined to the home for a variable period after delivery. This has a significant effect on care-seeking behaviour for mother

and baby. There are also multiple food-related taboos and restrictions from early pregnancy to the postpartum period.

PREGNANCY CARE

Almost all of the women said that they became aware of their pregnancy when they experienced amenorrhoea, nausea and vomiting, loss of appetite and weakness. Most of them could identify their pregnancy within the first 2-3 months. For most of the women pregnancy identification and care was seen as a normal event, which did not require any particular medical intervention, unless significant complications arose during this period. In our study we found two women who had no menstruation history after delivery of last baby and conception of later one. Eight out of 20 women went to nearby health facilities for pregnancy tests.

Ante-natal care

Ante-natal care coverage by a trained provider, although low, has increased in Bangladesh over time. One-third of the women received an antenatal check-up from a medically trained provider in 1990-2000 compared to one-half (52%) in 2007 (BDHS 2007). According to national average, 31% of women received antenatal care from doctors and 17% received from nurses, mid-wives or paramedics (ref). Eighty percent of the women in this study reported to have received at least one ante-natal check-up during their pregnancy, almost half of the respondents reported to have received the Bangladesh's nationally recommended antenatal check-ups (at least three), and none met the World Health Organization-recommended antenatal check-ups (four or more). The objective of the present study was to know more about the reasons behind not getting antenatal care. My findings revealed that dire poverty and constraints create an environment which pushes them aside from antenatal care services. The following findings are not unique but typical of the broad experience of poor women living in rural areas of Bangladesh and highlight how they cope, struggle, manage under conditions of extreme deprivation and sufferings.

"I was avoiding PO Apa because she would scold me if she would have heard about my 4th pregnancy. So, I spent my pregnancy period without informing anyone."

In two cases the women reported that the respective PO Apa came to their house. However, neither of them came out from their house. The use of harsh words and low tolerance by the health workers discouraged the use of health facilities for antenatal care. In fact this is one trade-off between promoting care and family planning. Similar experiences have been documented, for instance in other countries like Ghana, where women changed even their place of delivery for this reason (Mwifadhi M 2007). However, the most frequently cited reason for not seeking antenatal care was lack of need. Most of the mothers stated that antenatal care provided no benefit to them or their child. Monetary constraints, no knowledge about the need of service, restrictions on the movement of women, and low-perceived quality of care were also cited as reasons for not accessing care.

"I heard on radio that health service from government facility is free of charge but when I went to the health facility I was asked to make a card for Tk. 20. Which services are then considered to be free of charge?"

Few women now tend to go to other health services rather than only to BRAC facility, whereas other women are more dependent on BRAC health facility. Here it is worth mentioning that BRAC health facility was available to all in our sample. In two cases we found that husbands tend to go to pharmacies to bring iron or vitamin supplementation. The most common service that a pregnant woman receives in ante-natal care services is iron supplementation. However, most of them did not take all the tablets delivered to them because women perceived the tablets to be tasteless (or have bad

taste) and these make stool black. None of them took iron tablets during their last pregnancy for more than 2 months.

Nutrition in pregnancy

Proper nutrition during pregnancy is important for the health of the mother and the newborn (Christian 2006). In developing countries, socioeconomic status and household food security are often viewed as primary determinants of the quantity and quality of food consumed by individual household members. However, in many cultures worldwide, cultural and physiological factors also have a strong influence on dietary adequacy, particularly during pregnancy (Bryant et.al., 2003).

Throughout South Asia, as well as various African countries, Iran, and even Europe, pregnant women have been observed to purposively reduce food consumption during pregnancy—a behaviour commonly referred to in the literature as ‘eating down’. It was commonly reported that the causes of ‘eating down’ in Bangladesh contexts, where the behaviour is supposedly widespread, were related to fears that having a large baby could lead to more difficult delivery. Moreover, mothers think that ingested food shares the same space in the ‘stomach’ as the fetus, and they consumed less food in order to give the baby space to thrive in the limited shared space. However, it was evident that eating less was not related only to availability or denial of food or food distribution in the household, rather due to unwillingness of mothers themselves.

“It is not possible to eat the whole piece of any food, even an egg, without giving to other family member.”

“What could I do? I used to vomit and was getting bad smell in food. Sometimes I ate only a little rice with chilies.”

“Restrictions or selection of food during pregnancy is applicable for rich women. We are poor. We can afford only rice, so we eat rice only.”

“I could not tolerate any food smell if it was cooked with onion.”

The reasons for decreasing consumption of some food most often were related to aversion to specific foods, followed by inadequate money to purchase food that ultra poor household usually took (like rice, potato, small fish). However, few women reported increasing consumption of foods during pregnancy. The reasons given for increased consumption are less varied than those given for decreasing consumption. The most frequently cited reason was ‘feel like eating more.’ ‘Craving for a specific food’ was also cited as a reason for increased consumption of some foods such as molasses-made drink, rice with green chilies, and milk. Very few (2/20) of the women mentioned that the increase in intake was related to better health of the mother or the baby. This tended to be where husbands and other family members were helpful and better informed.

“I know that eating more food is necessary when there is a baby in womb. But I am poor, how can I afford it?”

Usually pregnancy is considered a ‘hot’ state (Christian 2006), so at times foods that are considered ‘hot’ were restricted, like duck, pigeon, beef and Hilsha fish. This restriction was not at all a problem to maintain for these poor households because in any case these foods are not within their affordability. Some fish like Taki, Chanda and Puti, which were within their affordability, were also restricted during pregnancy. There were no restrictions in consuming fruits among the ultra poor households.

"There are no restrictions in fruits, but the price of fruit is too high. At times my husband brings only 2-3 bananas from market. We share this with my child, husband and myself. If I don't give to my husband, he might think, I have taken all of those bananas."

Restrictions and mobility during pregnancy

Rituals to protect pregnant women and babies from the influence of evil spirits and ghosts are universal. Such traditional beliefs are transmitted from one generation to the next. There is great social pressure on pregnant women to observe these rituals. It is generally believed among the ultra poor households that evil spirits are more active in the evening, at noon and at night, so pregnant women avoid leaving the house at those times. Walking through graveyards is also thought to be harmful for pregnant women. If they do go out, they tie-up their hair and cover the head with cloths.

"Evil spirits could cause miscarriage of the fetus, that is why I did not go out in prayer time"

A few women reported that ensuring a piece of iron can bring protection. Matches can be effective in keeping away the evil gaze of the spirits. Most of the respondents mentioned that lunar and solar eclipses could affect pregnant women. They reported (those who got eclipse during last pregnancy) that they stayed inside the household, walked near the home or inside the home, but they never lay down on the bed during eclipses. A common statement was, 'no pregnant woman should lie down during an eclipse.' They also reported certain restrictions during this period - they did not eat or cook, cut, twist anything, as they perceived that the child would be born with a cleft palate or with deformed features. Many of the women reported that elderly family members and spouses were the main informants as to when there would be a lunar or solar eclipse. In any case, restrictions in movement never been imposed from any health providers, it was always from elderly women of the family.

Support from others

"All Mamta's husband can call his own is the homestead land and the house. He inherited 3 decimals of land from his father on which he has built a house to live upon. Her husband doesn't have any source of income other than the 2/3 kgs of rice that he gets from begging door to door. From that amount, Mamta keeps whatever is required for the household and sells off the remaining to buy other necessities such as, salt, vegetables to run her family. Sometimes when her husband couldn't go for begging alms, Mamta would go to other people's house for working during pregnancy. Her husband did not want her to work at other people's house during her pregnancy and thought whatever he earned through begging was enough for the two of them to sustain. But still, when he was not home and someone called for her assistance, she would go to their houses to boil the paddy or for maintenance of floors in exchange of 1 or half a kilo of rice."

In the midst of poverty, husband could play a positive role in taking care of his wife during the pregnancy period. To ensure 'proper rest during pregnancy' this sort of attitude was sometimes taken negatively by the wife herself. On the other hand, few of the women considered this attitude of their husband as a positive attitude if the women were too weak to work or continue the usual household work. Three cases were found where women stopped their other child's schooling in consultation with husband for taking care of their animals so that she could rest. It would be interesting to explore in further studies to what extent asset management causes school dropout. Overall, during pregnancy,

women reported that husbands and other family members helped them in doing heavy work. Activities such as fetching water, boiling and husking rice, lifting heavy cooking utensils and preparing food for animals are generally regarded as heavy work.

Birth preparedness

Birth preparedness includes selecting a skilled birth attendant, arranging delivery kit needed for a safe birth, identifying where to go in case of emergency and arranging necessary money and transport for this purpose. In this study, we found only one woman who had a birth plan (took all of the preparation) before delivery.

Women sometimes do not contact birth attendant in advance. In-depth interviews with mothers (from Kurigram district) who had given birth recently, gave a clear picture of the relationship between *dais* (birth attendants) and mothers.

"Few days back Jajamoni, the dai of this area came to our house. I did not meet her on purpose as none can be certain of the dai's intentions. Some times they cast spells and stop the delivery process unless it's done under their supervision. I sent off some puffed rice and betel nut through my son as a token for the dai. The dai understood about my pregnancy and asked my aunt, "How many months is she running?" Aunt intentionally pretended of not knowing about my pregnancy and said, "I can't tell for sure how many months she is running pregnant". I was in fear since then. The dai was aware about it and I won't be able to do anything if she would have cast any spell on me to hinder the delivery process.

After a few days in the initial stage of my labour for 2 consecutive days, my husband brought me some homeopathy medicine from the local homeopath Mr. Karim as per my aunt's advice. He brought medicine worth taka 10/12. The doctor told him that I would start having pain after taking the medicine but I didn't get any pain, neither was the child born.

My aunt made me drink water washed with needle and have roots of "sultia" plant (it's a kind of small plant). The roots of this plant needs to be chewed which begets the labour pain and enhances the speed of delivery process.

On the morning of the 3rd day my husband went out to call the dai Jajamoni after I started having pain. She was not informed beforehand as she took more money if asked to stay for a longer period of time. This dai perhaps is trained. Most of the children in this locality are delivered by her."

Here, poverty again stopped them to take any birth plan. Moreover, they do not want to take any risks in cases of superstition which might cause monetary involvement. In the present study, few could put aside money for delivery purpose. One husband had financial constraints so, he saved 40 kg. of rice. Some women said that they only collected some old clothes, which they kept separately, but they had not stitched any new dress or *Kutha* (local quilt covering) for the arrival of the baby. Women believe that it is bad to buy new clothes or plan too much for the new arrival as it can bring bad luck. This is a superstition not only confined to the poorer classes, but also followed by the wealthy and middle classes. Moreover, they are not sure whether the coming child will survive or not. Money spent on her/him is considered as unnecessary. Women assumed that transportation would be available either from a family member or from a neighbour when needed and, therefore, did not plan for transportation in advance.

DELIVERY CARE

This study supports findings of other studies (Barnett 2006) that the overwhelming majority of deliveries in rural Bangladesh takes place at home and is not attended by health professionals. After the initiation of initial labour pains, elderly women usually take various steps and observe certain rituals in order to facilitate quicker delivery of the baby. Women reported that sometimes relatives feed them *pora pani* (enchanted water) to give the woman mental strength. For strengthening the energy of the delivering mother as well as for intensifying labour pain, five mothers said that they had taken saline with an injection (oxytocin) from a neighbouring *Pallichikitsbok* (Village doctor). It is well established that oxytocin when given for induction of labour or augmentation of uterine activity, should be administered only by the intravenous route and with adequate medical supervision in a hospital. Using oxytocin at community level without medical supervision is not documented in WHO guidelines.

Place of birth and attendance at delivery

Skilled attendance at delivery has been promoted as the single most effective means of successfully reducing rates of maternal mortality in poorer countries (Josephine B 2006). On the other hand, training of traditional birth attendants (TBAs) is not an effective strategy (Sibley et al. 2004) for reducing maternal mortality or even in significantly improving referral of woman with obstetric complications. Moreover, TBA practices are often harmful, for example poor hand hygiene, frequent vaginal examinations, pressure on the uterus, and attempt to forcefully deliver the baby and placenta, cutting the cord with dirty instruments, leaving the newborn at risk of hypothermia and applying unnecessary or dangerous substances to the cord stump (Al-Sabir 2003). Yet, in Bangladesh, the majority of mothers do not use skilled delivery care due to a combination of socio-cultural barriers and issues associated with availability, quality, and cost of services. While 91% of deliveries take place at home, a trained health worker was present in only 13% of cases, with most deliveries being attended either by relatives or by a TBA (Josephine 2006). In this study most of the deliveries took place at home (95%). TBA or friends/relatives were the most common persons who were present as birth attendant during delivery. Almost all deliveries took place on the floor. Some took place even on the bare floor, but most often on cloth or jute sack or straw. As found in Blanchet's study, delivery was not done on beds to avoid spoiling it. According to the women, few materials like straw, polythin etc. if placed on the floor made cleaning and disposing impure blood and placenta easier. Ten out of the 19 women reported that their preferred position was squatting when giving birth. This may, and often does, change as labour progresses. For some of the women, squatting position was seen as more painful than lying. Usually the position taken was often decided on discussion with *dai* and other female relatives. We found no cases where male members of the household were involved during the delivery.

Health system factors, such as staff attitudes from healthcare, also had an impact on the choice of place for delivery. Poor staff attitude was perceived to exist in most health facilities; including abusive language, denying women service, lacking compassion and refusing to assist properly.

I went to government facility for antenatal care. The concerned person told me I might need cesarean, and I would die if I didn't go to the hospital. Are these words good to tell someone who is pregnant?

Due to the prevailing large number of births at home, it is important to assess whether hygienic practices are being implemented in the community or not. Clean hands are essential for safe delivery,

women reported that husbands and other family members helped them in doing heavy work. Activities such as fetching water, boiling and husking rice, lifting heavy cooking utensils and preparing food for animals are generally regarded as heavy work.

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Due to the prevailing large number of births at home, it is important to assess whether hygienic practices are being implemented in the community or not. Clean hands are essential for safe delivery,

and reducing the chance of maternal and neonatal sepsis. The mothers were thus asked whether the birth attendant washed their hands with soap before delivery, whether the instrument used for cutting the umbilical cord and the thread used for tying the cord were boiled before use. Washing hands before conducting delivery was very low in both the groups. Boiling the instrument (blade) was high, but in old TUP cohort birth attendants did not boil the thread. Women reported that at times *dais* kept the thread on fire only, but not let it boil if the thread was new.

Practices to speed delivery of placenta

The focus of attention after birth of the baby is on the removal/expulsion of the placenta, as the placenta is believed to have spiritual value, and until then the baby is typically left completely unattended (Darmstadt 2006). In this study we found that there is a panic if the placenta is not ejected quickly, as the mother is believed to be in danger. Some believe that the placenta can move up into the throat and choke the women to death if not removed promptly. To release the placenta after delivery or in cases where there was a delay in the process, *dais*/relatives massage the abdomen of the women, gag her with her hair or give kerosene oil or onion juice to induce vomiting, which is believed to help expel the placenta through abdominal contractions. In one case we found the *dai* wiped her chest with a dirty cloth (which was used in mud cleaning) and this worked to expel the placenta. Treatment of placenta is sometimes considered a higher priority than treatment of the newborn immediately after birth, as reported in other studies (Darmstadt 2006). It is believed that placenta should be buried in the dry soil so that the child will not have any cold or cough later on.

POST-PARTUM CARE

Dietary restrictions

Shujata's child is not even a month old. She lives with her family consisting of her husband, mother and an elder sister. "We all live together, use the same kitchen but have separate rooms. Since the child's delivery, my mother and sister prepare the food as newly delivered women (Poaati ma) are not supposed to cook till 40 days after the delivery because their body is impure. People wouldn't like if I did and it's not good for me even. My mother brings me food in my room and gives me lesser than my usual intake of food so that I don't fall ill. Poaati ma should eat as less as possible till their umbilical cord doesn't dry up. It doesn't matter if I'm still hungry and feel weak and long as I don't have to spend money for doctor's visit. It doesn't harm if you follow the elderly' rules and regulations. I have the whole life to myself to eat more so it's fine if I eat a little less the 1st 1-2 months. I prefer weakness to illness.

During the post-partum period, especially during the first 5-9 days of isolation, various dietary restrictions are imposed on the mother that deprives her of nutrition, as reported elsewhere (Darmstadt 2006). Most foods, in general in these TUP households, are thought to be inappropriate during lactation. For some, no food at all was allowed for the first few days after delivery, and commonly no food was given at all during the first day after delivery to allow for healing of the birth passage. For women suffering from malnutrition (prevalence 49.5% in TUP households, SM Ahmed 2006), this may be worsened by food taboos during the postpartum period. Moreover, women are considered as impure during this time. They are not allowed to touch any food to prepare for other family members in the family. In-depth interviews revealed that, mother-in-laws and elders decided what food the mother would eat.

After sunset, the mother-in-law did not allow me to eat any solid food till 40 days...and gave less in quantity."

"Dai told me not to eat any hard food (which takes more time to digest), because it delays healing."

"Sisters-in-law or mothers are experienced, they will not tell me to do anything that is harmful for me or my child."

The most common items eaten during the post-partum period included rice, smashed potato with spices, raw tea, green banana, black cumin, poppy seed (*postodana*), fenugreek leaves (*methi*) etc. These are believed to keep the stomach cool and initiate production of breast milk. On the other hand, raw tea, black cumin, poppy seed, fenugreek leaves, *neem* leaves all these foods have health benefits beyond basic nutrition and therefore, by definition, be classified as 'Functional food' (Yusuf 2005). Whatever the 'functional food' especially consumed during post-partum period, it was reported that food was consumed only for few days like 3-7 days. Restrictions continued for a long time like 21-40 days. Opinions on spicy food were mixed. It was given for the first few days for healing the birth canal and later it was restricted to avoid heart-burning.

Post-natal care

A prompt post-partum checkup can help identify problems such as puerperal sepsis, breast-feeding difficulties, retained products of conception and neonatal illness, as well as providing support and advice to the mother on her and her baby's health, nutrition and vitamin A supplementation (Al Sabir 2003). After delivery, the mother is likely to be tired, weak and at risk of infection. Women reported that they felt weak with severe body ache (11 out of 19 interviews) after delivery. It lasted for one to three weeks. None of them went to any health providers for seeking any service for this weakness and body ache. These mothers reasoned that they did not go for check-up because they did not know that a post-partum check-up was advisable. Four women reported that their husbands or mothers went to pharmacies to bring a vitamin or saline. This weakness is considered as a common part of their post-partum life. But this post-partum period is vital when most maternal deaths and infant deaths occur.

"It is normal to have some body ache and fever after delivery, these would be cured automatically"

SECTION-II

NEWBORN CARE

Care practices immediately following delivery contribute to newborns' risk of morbidity and mortality (Baqui 2007). A set of practices that reduce neonatal morbidity and mortality have been outlined as essential newborn care practices. These practices include clean cord care (cutting the umbilical cord with sterilized instrument and tying it with sterilized thread); thermal care (drying and wrapping the newborn immediately after delivery and delaying the newborn's first bath for at least six hours or several days to reduce hypothermia risk); and initiating breastfeeding within the first hour after birth. Clean cord care, thermal care and breastfeeding have been identified as proven interventions that save newborn lives (Darmstadt 2005, Baqui 2007).

Cord cutting and cord care

A few days after the umbilical cord is cut the stump dries and separates. To prevent sepsis the stump should be kept clean and dry. Ideally nothing should be applied to the stump (Al Sabir 2003). Who cuts the cord and the price for doing so is a demarking point between Muslims and Hindus as reported by Blanchet's report.

In the ultra poor households, one-fourth of the women reported that mothers themselves cut umbilical cord of their children. Whereas in MNCH follow-up survey (BRAC 2008) conducted in October 2007, cord cutting by mother herself was low (14 out of 509). Different reasons are reported in present study for not allowing the *dai* to do it. Some mothers considered it is a duty of the mother to cut the cord. Moreover, it is believed that if the *dai* or another woman cuts it, the mother will have to pay extra money. This expense can easily be avoided if mother can cut the cord (from Kurigram 2007-cohort).

"A mother can not be that tired after giving birth that she would not be able to cut the cord, and this little effort can save money."

In few instances, women mentioned that mothers must cut the cord. If another woman or *dai* cuts then this woman would become "napak" i.e. in a state of pollution for 40 days. And these women will not be allowed to perform prayer or fasting. (2007-cohort)

"After delivery of the placenta I was unconscious for a while, my mother and mother-in-law both waited till I recovered, then they came to me with a blade and I cut the cord."

Another woman mentioned cutting the cord is as important as feeding breast milk.

"Why should I go for an obligation for cord cutting by another person?..... better if I can cut by myself. And my child will remain grateful only to me, not to another woman. Nothing is lost for cord cutting."

After cord cutting, the important components of cord care practices are applying substances to the umbilical stump, cleaning the stump and its surrounding area, and applying heat massage on and around the stump. These practices are performed as routine newborn care practices with the ultimate goal of facilitating drying up and timely falling off of the umbilical stump. In this study most babies (14 out of 19) had applied something to the stump.

Applying substances on the umbilical stump is an important part of cord care practice for the newborn baby at home as found in in-depth interviews. The mothers mentioned a range of substances they applied on the umbilical stump, which include a single as well as combination of two or three. These are mustard oil, boric powder, coconut oil, goat dung, vermilion, breast-milk and cigarette ash.

The main objective of applying substances on the umbilical stump is to facilitate timely drying up and falling of the stump of the cord. Thus, this practice usually continues until the umbilical stump dries up.

Thermal care of newborn infants

Ideally, infants should not be bathed until at least 24 hours after delivery to maintain body temperature and minimize the risk of hypothermia. The delay in drying and wrapping the newborn after birth (1 out of 20) is found consistent with previous studies (Barnett 2006, Baqui 2007). Receiving information about thermal care was predictive of the practice (Baqui 2007), but this

information was rarely communicated unless only in MNCH intervention areas. Almost all children (19/20) had bath on their first day, even within 2 hours of their birth. Therefore, the importance of newborn thermal care should be communicated to both health providers and pregnant women.

Breastfeeding

Immediate and exclusive breastfeeding is beneficial for both mother and the baby. Women were asked about whether their infants were ever breastfed, whether colostrum was their first food, and what the timing of first breastfeeding was. In terms of ever breastfeeding, the results were impressive. All of them were still continuing breastfeeding. The results for being fed colostrum and initiation of breastfeeding soon after birth were less promising (4/20). Infants who were not fed colostrum as their first food were given honey (11/15), or cow/goat milk (4/15). All mothers who reported that first food of their child was cow/goat milk were from 2002 cohort. All of these households have cow or goat at their home. Availability of cow's milk might have an impact on giving the cow/goat's milk to infant on first day. On the other hand, those who did not have any animals did not feed cow/goat milk. Thus poverty can here be considered to be a blessing in disguise and prevented the women from doing any harmful practice.

"At home we do not have any honey or milk , that's why I had to give breast milk"

Honey is given for different reasons, none of them related to health.

"I gave honey because the child will speak sweet words."

"This is our system, say for example, if anyone comes to our home for the first time we usually welcome him/her with sweets – it is the same for newborns."

Even if the households are not able to buy honey they gave sugar water. Honey may contain the spores of *Clostridium botulinum*, the causal agent of botulism. Since the gastrointestinal tract of infants contains insufficient acid to kill these spores, honey should not be given to infants under one year of age (IYCF recommendation 2007).

CONCLUSIONS

Findings on maternal and neonatal care practices are very similar to any other rural or urban slum scenario. Safe delivery and birth preparedness are very low as there is a social or cultural belief not to take any preparation for delivery. Moreover, there is a financial constraints. The community strategies can focus to increase the number of infants receiving essential newborn care, being wiped, wrapped, and fed colostrum immediately after delivery, while decreasing the number that are bathed in the first 24 hours. Giving honey to infant is harmful; it should not be given under one year of child. There are multiple food-related taboos and restrictions from early pregnancy to the post-partum period. This contributes to maternal malnutrition, anaemia, and babies with low birth weight, that have higher risks of dying in the neonatal period. As the programme is reaching households to deliver the messages on health issues, other family members can be advised not to impose any dietary restrictions during pregnancy and most importantly post-partum period.

According to the responses in this study, care giving is considered a female role within the households, ranging from the elderly grandmothers to young girls. The interviews indicated that men's involvement in care provision for maternal care arises in those situations where there is no able female to take over the role. The positive view of this study, however, was that husband's involvement, like 'not to allow to do heavy work during pregnancy' and 'going to pharmacy to bring

vitamin and supplementation', could shift some of the care burden and distribute it more equally within the family. In both the cases we found a positive outcome, like pregnant woman was able to take rest during pregnancy and could take vitamin supplementation in post-partum period. Focus can be on increasing the role of men/boys in care provision beyond what they are now doing.

There is a need to sensitize health workers so that beneficiaries are not scared of them. Women should share their problems easily with health providers. It was encouraging that no traditional beliefs were delivered through any health providers to the community. During pregnancy there are plenty of rules about behaviour. Traditionally, mothers and newborns are typically confined to home for a variable period after delivery. This has significant effect on care seeking behavior for mother and babies.

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