

Barriers to access in maternal healthcare services in the Northern Bangladesh

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Abstract

Poor women, in both rural and urban areas in the northern region of Bangladesh, experience high maternal mortality rate (MMR), and compared to other regions, this group also has a low proportion of receiving antenatal care (ANC) and of births assisted by the skilled health personnel. One of the prime factors for this situation is the lack of the poor mothers' access to maternal health care (MHC) services. Finding out physical, social and organisational access barriers to MHC services and exploring how these barriers caused three delays in healthcare seeking behaviour were therefore the main objectives of the paper. The study used both primary and secondary data to meet its objectives. The primary data was collected from October to December in 2010 interviewing 160 mothers who were pregnant or delivered at least one baby during the last ten years and the heads of seven relevant health centres, administering eight focus group discussions and observing the field. An assortment of articles, reports, theses and books were consulted in complementing and substantiating the argument. The study found social (early marriage, perception of pregnancy and childbirth, high financial cost) and organizational (lack of female health staff, lack of a guiding principle in the health sector, in/exclusion errors in benefit distribution, low quality services) barriers more acute than physical (distance and waiting time) barriers. As concluded, all these barriers seem to have caused delays in seeking healthcare, reaching facility centres at the right time and receiving adequate services. The findings of the current study suggest that rescheduling official time of the service centre, recruiting and posting female health workers, following a guiding path and providing emergency obstetric care at free of costs are the feasible ways of getting better maternal health situation in the study areas.

Keywords: Barriers, Maternal healthcare services, Poor women, Health seeking behaviour, Bangladesh.

Introduction

Bangladesh has made tremendous achievements in the health sector over the last few decades.¹⁻² The population growth rate has come down from 3% in 1975 to 1.58 % at present, the fertility rate has declined from 6 to 2.55, the contraceptive prevalence rate rose to 56% from 7.7% in 1975, the infant mortality rate has come down to 48 from more than a 100 per 1,000. There was an increase of six years in the life expectancy between 2007 (64) and 2012 (70). The main contributing factors for such an acclaimed achievement include the up-gradation of rural health centres, the establishment of new medical colleges and institutes, increasing the involvement of Non-Government Organisations (NGOs) in service provision along with the government organisations (GOs), bringing reform in the health sector thereby decentralizing service delivery pattern.³⁻¹⁸

There are of course many negative statistics in the health sector. The family planning program is not expanding, rather stalling and about 15,000 mothers die annually at the time of baby delivery (2.4 maternal deaths per thousand) and 7000 infants die every year. About 70% of the pregnant women suffer from anaemia, 71% of deliveries take place at home and 45% of babies are born under-weight.¹⁹⁻²⁴ One of the main reasons, as indicated by anecdotal evidence, for worse situation in maternal health is that women, particularly poor, do not have access to healthcare services. In addition, a lot of research find out class and region-based inequity in access to primary, particularly maternal, healthcare services and broadly classify all access barriers into four sections;

Practice Points

- Poor women with limited access to maternal healthcare services face tremendous health problems.
- Situation of maternal health in Rajshahi division is worse compared to other divisions in Bangladesh.
- Social and organisational barriers are more prevalent than physical barrier in the study areas.
- All these barriers apparently delay in seeking, availing and receiving healthcare services.
- Rescheduling the opening and closing times of the healthcare service centre, recruiting and posting female health staff, formulating a guiding principle and making emergency obstetric care free are the possible ways of improving maternal health situation.

socio-cultural, financial, physical and organizational/institutional.²³⁻³⁷ The main objectives of this paper were therefore to explain these barriers, broadly divided into three types: physical, social and organisational and to explore how far these barriers caused three delays (delay in making decisions about seeking healthcare, delay in reaching in the facility centre at the right time and delay in receiving adequate services) which are well-known in health sociology

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literature. The rest of the paper is organized in this manner. The next part gives ideas about the ways the study was conducted which is followed by highlighting main results of the study. The final part draws a conclusion.

Materials and methods

The study basically used both primary and secondary sources of data. Mixed methods were used for collecting primary data. They include interviews of service recipients through interview schedule, interviews of service providers through checklist, focus group discussion (FGD) and observation. The main reasons for choosing mixed methods were to understand and interpret the problems, to explore the availability of and accessibility to health care services, and to mitigate problems of validity and bias.³⁸⁻³⁹

The study got ethical permission from the Ethics Committee of the University of New England, Australia. It was conducted by using multi-stage sampling technique which included purposive for site selection, systematic random sampling for household selection and finally snowball sampling for respondent selection.

Area Selection

The main focus of the study was to explore different access barriers to MHC services. In this regard, out of seven divisional regions in Bangladesh, Rajshahi region was selected due to its worst condition. The following figures suggest that Rajshahi situation is not better compared to other regions in Bangladesh.

- The MMR in Rajshahi and Bogra regions within Rajshahi division is 2.9 and 3.0 respectively while the figure for Barisal, Pabna, Tangail and Dinajpur is 2.6, 2.6, 2.6 and 2.8 interchangeably.⁴⁰
- The proportion of delivery done by qualified doctors in Rajshahi is 22.1% which is lowest compared with other divisions.⁴¹
- The percentage of delivery held in a facility centre in Rajshahi is 13.2 whereas that in Khulna and Dhaka is 22.4 and 16.9 respectively.⁴²
- The percentage of mothers with at least one ANC visit in Rajshahi is 71.3 while the figure for Khulana and Rangpur is 77 each.²⁴
- Around 60% of mothers in Rajshahi division had no access to ANC provided by medical personnel whereas only half of the mothers in Khulna division had no access.⁴⁴

Site selection

The study selected three different areas of Rajshahi division (Bogra city, Rajshahi city and Shapahar) based on the rural-urban continuum scale, remoteness and clustering poor households. Rajshahi and Bogra are metropolitan cities where government and private organisations, including NGOs, provide basic healthcare services. Shapahar, where government-provided healthcare services are available, is in the rural area of Rajshahi division close to the border with India and far away from the heart of Rajshahi and Bogra cities.

For Bogra and Rajshahi city, a search was made on the number of wards. In Bogra, from a total of 20 wards, ward no. 6, where poor families usually lived, was selected. From within this ward, one particular area, namely North Chelopara, was chosen. Similarly, two very remote wards (no 17 & 30) of a total of 30 ones, in Rajshahi, were selected. Kazla (ward no 30) is situated in the eastern corner of the city and about eight kilometres away from the central business district. Naodapara (ward no 17) is located in the northern part of the city and around 15 kilometres away from the city centre. From Shapahar *upazila*, one village located far away from the administrative headquarter was selected for administering interviews of the women. This village — Nirmoil, had poor communication facilities and limited forms of transportation for travel.

Development of research instruments

With some addition and correction of an initially developed draft interview schedule, a semi-structured interview schedule (including both open and close ended questions) was finalized for pre-testing. One-day long intensive training was given to the research assistants (RAs) with objectives of giving them orientation about the issues to be studied and how interview schedule should be filled up. Getting feedbacks from the pre-testing, necessary correction and modifications were made in the interview schedule. It was then ready for conducting interviews among the recipients of MHC services.

Once the interview schedule was finalized after the pre-testing, RAs prepared themselves for conducting interviews. Field investigation began in early October and ended in late December 2010. Each interview took 30 to 45 minutes on an average. Sixty mothers were interviewed in Bogra and Rajshahi each and 40 in Shapahar, therefore the total number of respondents is 160. One street from the selected areas was chosen randomly. Then the first woman either being pregnant or delivering at least one baby in the last ten years was randomly picked up for interview. Based on her knowledge regarding the availability of nearby mothers/women with pregnancies/babies, the consecutive respondents were selected (by using snowball sampling technique). Before interviewing, all respondents were sought for their consents. It should be mentioned here that RAs were instructed that they should interview mothers from different clusters and avoid the next door neighbor of the interviewee. The basic principle for giving this instruction is to collect information from heterogeneous respondents, albeit they are homogenous in basic socio-economic parameters, thereby maintaining quality of the study. Once the interviews of females were over, a check was made where the respondents invariably went for MHC services. Heads of these healthcare centres were targeted to interview. The total number of interviews conducted is seven — three each in Shapahar and Rajshahi and one in Bogra. In addition, Eight FGDs (two each in Bogra and Shapahar and four in Rajshahi) were organised and each was conducted for about an hour. The researcher moderated the FGDs and took notes of proceedings. The number of participants in each FGD was on average five.

After completing the field investigation, all the interview schedules were edited and some errors were

detected and corrected accordingly. All data was coded and analysed through the Statistical Package for Social Sciences (SPSS) program. Then it was presented in a tabular form. Comments on different issues made by FGD participants were quoted in the text. Besides these, the study used different reports, articles and news paper features for making arguments stronger.

Profiles of the respondent

Most respondents (Table 1) were below 35 years of age (94.3%) and married (96.8%). Around 90 % of respondents were married below the age of 20. Marriage at an early age is still prevalent and it could be one of the main reasons that caused early-married mothers to be at high risk, including death. More than three-fifth mothers were 25 years old or below. That means, they attained motherhood immediately after marriage. It could be that they had more than one baby within five to seven years of their marital lives, as they are culturally and socially conditioned to have babies one after another. Although the study targeted to interview pregnant women or mothers with at least one baby in the last ten years, the majority of mothers delivered at least one baby in the last five years. So there was little scope for recall bias. Sixty three out of 160 respondents were illiterate, while 44 and 50 had primary and secondary levels of education respectively. Around 78 % of respondents had three-member- oriented families, while 19 % had four to six member-based families.

As revealed in Table 2, around 62 % of respondents were Muslims and 34 % Hindus. Almost all respondents were housewives. Around 44 % of respondents reported that their monthly family income was less than 5,000 Taka (US\$ 1=about 80 Taka), while half of the respondents reported an income between 5001 and 10,000 Taka. Only 6% of families had more than 10,000 Taka monthly income. Less than three quarters of respondents (71.2%) lived in *kutcha* type of residences,

Table 1: Demographic profile of the respondents

Different categories	Frequency (%)
<i>Age</i>	
15-20	33 (20.6%)
21-25	65 (40.6%)
26-30	36 (22.5%)
31-35	17 (10.6%)
36+	9 (5.7%)
<i>Marital Status</i>	
Married	155 (96.8%)
Widowed	3 (1.9%)
Divorced	2 (1.3%)
<i>Age at marriage</i>	
11-15	47 (29.4%)
16-20	96 (60%)
21-25	11 (6.8%)
26+	6 (3.8%)
<i>Educational qualification</i>	
Illiterate	63 (39.3%)
Primary	44 (27.5%)
Secondary	50 (31.2%)
Higher-secondary	3 (2%)
<i>No. of family members</i>	
1-3	125 (78.1%)
4-6	30 (18.7%)
7-9	5 (3.2%)

Source: Field Survey

Table 2: Socio-economic characteristics of the respondents

Different characteristics	Participants (%)
<i>Religion</i>	
Islam	99 (62%)
Hindu	54 (34%)
Christian	3 (2%)
Adhivasi*	3 (2%)
<i>Occupation (Multiple answers)</i>	
Housewife	152 (91.6%)
Job	1 (0.6%)
Housemaid	5 (3%)
Agriculture	8 (4.8%)
<i>Income level (family monthly)</i>	
Below 5000	69 (43.9%)
5001-10,000	79 (50.3%)
Above 10,000	9 (5.8%)
<i>Household patterns</i>	
Kutcha**	114 (71.2%)
Pucca***	8 (5%)
Semi-pucca†	29 (18.1%)
Tin	9 (5.7%)
<i>Household facilities</i>	
Bed	129 (81%)
Box	120 (75%)
Clothes hanger‡	108 (68%)
Table	8 (5%)
Neither	28 (18%)
<i>Consumer items (multiple answers)</i>	
Television	64 (40%)
Refrigerator	12 (8%)
Mobile	11 (7%)
Fan	35 (22%)
Radio	3 (2%)
VCD	9 (6%)
Cycle	6 (4%)
Neither	59 (37%)

Source: Field Survey

*Aboriginal religion **The walls and/or roofs of houses are made from materials such as un-burnt bricks, bamboos, mud, grass, tin, etc. ***The walls of house are made with burnt bricks and roof is concrete. †The walls of burnt bricks and roof are made of corrugated tin. ‡Keeping clothes and valuable items.

followed by semi-pucca (18.1%), tin shed (5.7%) and pucca (5%). More than half the respondents had bed, box and clothes hanger. The percentage of respondents having no household furniture was 18. Interestingly, the number of respondents having a television was quite high compared to a more useful item, such as the refrigerator or a fan. It is important to note here that 37% of respondents reported that they did not have any consumer goods. Among respondents with consumer goods, the majority (43%) had only a single one, while 15% had two consumer goods. Only one-fifth of respondents had either two or more than two consumer goods.

If we take US\$2 as a measure of income poverty, around 44% respondents were below the poverty line (Table 2). If poverty is multi-dimensionally treated, around 70% respondents were deprived of education and a decent living standard. No electricity was

available in the study rural area where only rich people had solar energy. As found in a study, one household can be assessed as deprived if no household member has completed five years of schooling; household has no access to electricity; it has dirt, sand or dung floor; and it does not own more than one item of consumer goods.⁴³ Based on the criteria set by the above study, 66.8%, 71.2% and 80% households in the study areas were deprived from education, decent housing and not having more than one consumer item respectively.

Results and Discussion

Physical barriers

i. Distance

Distance appears to work as a key deterrent to access. Because pregnancy and labour are physical conditions that cannot permit pregnant mothers to walk or travel for long, these can bring about adverse effects on the health of a mother and the child she is carrying.⁴⁴ To offset the lack of a good communication system and its effects on the health of pregnant mothers and their babies, the government has taken the initiative to provide basic healthcare services at the doorsteps of the people. The introduction of community clinics (CCs) — one stop service centres — is one such initiative. The government also encourages NGOs and international organizations to set up healthcare centres in remote areas so that people can easily access healthcare services. One study conducted in Khulna city, found 40% of the people could attend the Urban Primary Health Care Project (UPHCP) centre located within a half kilometer distance, while 15% and 22% had a government and private hospital respectively within the same range. About three-fourths had a UPHCP centre within one kilometer, whereas less than half and near half households had a government and private hospital correspondingly within the same radius.⁴⁵ The study (Table 3) found that people had healthcare centres within a one or two kilometer radius.

As said in Table 3, half of the respondents (50.7%) reported that their nearest health centre was within a one kilometer distance. One quarter (24.7%) mentioned that

Table 3: Distance of the nearest centres

Range (km)	Frequency (%)
1	76 (50.7%)
2	37 (24.7%)
3	29 (19.3%)
4	4 (2.7%)
5	2 (1.3%)
6+	2 (1.4%)
Total	150 (100%)
No response	10

Table 4: Distance of nearest centres in study area-wise

Range (in KM)	Name of areas			Total
	Bogra	Rajshahi	Shapahar	
1	24	49	2	75
2	23	4	10	37
3	4	0	25	29
4	2	1	1	4
5	0	2	0	2
6+	2	0	0	2
Total	55	56	38	149

distance to be almost two kilometers, while 19.3% of respondents reported the need to travel three kilometres from their homes. Thus, both the government and NGOs in the studied areas have been able to set up healthcare centres within the reach of the people.

Fifty-nine percent of urban residents, compared to 26 in rural areas, travelled less than 30 minutes to reach a provider or facility centre. Half of the richest travelled 30 minutes to receive services, while the figure for the poorest was 23%.⁴⁶ It also uncovered that on average rural people travelled 11 and 35 kilometres to reach *upazila* and district hospitals respectively to receive emergency obstetric care (EmOC).⁴⁷ Similarly, this study (Table 4) found regional variations in distance to healthcare centres.

The number of respondents with a one kilometre reach was more than double in Rajshahi than in Bogra. Conversely, only 5% of respondents in Shapahar had it within the same distance. The number of respondents living two kilometers away from health centres was more than double in Bogra than in Shapahar. The number of respondents with the nearest healthcare centre within three kilometres was highest in Shapahar compared with Bogra and Rajshahi. People from Shapahar thus need to travel more to reach the nearest health centre than in Bogra and Rajshahi. The huge development of NGO-based healthcare centres is one of the reasons for urban health centres being closely-spaced, whereas the rural people still depend on government healthcare centres which are not always handy.

There is a huge difference in communication systems between urban and rural areas. The urban areas researched have better road communication that makes it easier for service users to travel to health centres either by rickshaw or on foot. On the other hand, the village studied is located far away from the administrative headquarter. This village had poor communication facilities and limited forms of transportation. If any patient from this village sought healthcare services, they had to arrange transportation on their own. The study found that almost three quarters of respondents travelled to the nearest centres by walking, while one quarter used cycle rickshaws as the preferred means of travelling to healthcare centres.

i. Waiting time

Sometimes patients need to wait for healthcare services. If this waiting time becomes longer, they are discouraged from going to health centres. Increasing the number of health personnel in these

centres is one way to address this issue. Many organizations (government and private, including NGOs) in urban areas endeavour to provide services in a timely manner so that patients do not lose their patience. With more choices, the urban folk can so easily make decisions about seeking care from any particular centre where, as perceived, they need not wait too long for treatment. For instance, around 80% service recipients at urban centres run by an NGO reported the waiting time to be less than 20 minutes.⁴⁸

Rural people (Shapahar), on the other hand, have only the limited options of going to government hospitals for healthcare services. With inadequate health staff and most remaining absent and sanctioned positions being continuously vacant, patients at government centres usually need to wait a long time to be treated. Sometimes, rural health centres open at unusual times (official opening time is 9 am and closing is 5 pm). If patients follow the usual business hours of the centres, they are forced to wait until the centre actually opens. For instance, the rural health centre visiting during the field trip opened at 11 am. At that time, only two women were waiting for the centre to open. They reported that they always had to wait for about an hour before being seen by the nurses or doctors. Sometimes, the actual hours of service centre do not suit women doing informal work, as house maids, for example. Taking time off from work for receiving healthcare services affects their daily income.⁴⁹ For instance, a substantial number of poor respondents were reported to be unable to receive healthcare services from their nearest centres because the timing followed did not suit their daily routines.⁵⁰ Long waits and inconvenient opening and closing times of health centres often caused delays in receiving care (the third delay) and hampered the normal progression of pregnancy.

In many cases, women from rural and urban slum areas with low levels of formal education do not know where to go for proper treatment. They usually spend more time locating an appropriate health centre. This long search process puts some pregnant mothers at great risk or may even prove fatal for both mother and child. For instance, a pregnant mother commonly goes to a local *dai*-traditional birth attendant (TBA). If the *dai* identifies any anomalies in the pregnancy, she is sent to either the village doctor, who has no proper training, or the union health centre. As rural health centres are not well equipped with essential drugs and medical aids, pregnant mothers are sent to the upazila health complex (UHC). If the UHC fails to provide the required treatment, the patient is finally sent to either the district hospital or mother and child welfare centres (MCWCs) located at the district level.⁵¹

iii. Opportunity costs

Uncertainty and fear about the government hospital's formal atmosphere and the not-so-friendly attitude of health staff there generally discourage rural people from visiting them. This delays making decisions about seeking healthcare from public hospitals. Expectant mothers often find it difficult to get someone who knows the hospital environment and staff well and who is willing to provide time to accompany them. Even after being there on time and with a companion, it is not always easy to get the treatment commenced immediately or even in a short time. All these factors can be a waste of time and energy for both patient and

her companion. For instance, a study depicts how Papreen's mother-in-law failed to convince Monira to go as an accompanying person to the UHC during Papreen's first baby delivery: "We must convince Monira to go with us. We don't know anything in the hospital. Doctors and nurses will be annoyed if we can't communicate with them".⁵²

The time spent by attendants diverts them from income generating activities and other domestic work, such as cooking and taking care of family members, particularly children. Another study rightly mention, "Time spent getting to, waiting for and receiving health services is time lost from other, more productive activities, such as farming, fetching water and wood for fuel, herding, trading, cooking and so on".⁵³

The other study documented that mothers, sisters, mothers-in-law, husband's sisters, husband's brothers or cousins and their wives, and wives of husband's uncles provided support during and after their pregnancies.⁵⁴ Similarly, the study (Table 5) found that around half of the respondents went outside for seeking healthcare services with husbands; 30.6% went alone, while 15.2% were accompanied by relatives.

One participant (Ms Usha) in the FGD conducted in Kathalbaria, Rajshahi city, mentioned that as her husband was the only bread winner, it was difficult for him to accompany her when she went to the medical centre for consultation and treatment. Like her husband, most husbands of participants were daily earners. For this reason, most pregnant mothers were invariably accompanied by their female family members. Likewise, female family members or female neighbours accompanied mothers in Shapahar when they went outside their homes seeking health care. Here economic reason is less important than social sanction (a woman should be accompanied by another female when outside).

Social barriers

i. People's perception, beliefs and attitudes towards health-related issues

Most of the people living in urban areas migrate from the countryside for various reasons, such as overcoming economic hardship, maintaining a political connection with the town, continuing higher education and so on. Migrated people bring not only their physical characteristics but also all sorts of cultural beliefs and attitudes to the urban areas. As most of the urban poor women researched are illiterate and lead unhealthy lives, they are incapable of keeping pace with the changing conditions of urban life. In other words, no urban mentality generally develops among them, though

Table 5: Types of companions during outside

Name of companioner	Frequency (%)
Neighbour	3 (2.1%)
Husband	73 (50.7%)
Daughter	2 (1.4%)
Relatives	11 (7.6%)
Alone	44 (30.6%)
Mother/in-laws	11 (7.6%)
Total	144 (100%)
No response	16

they live in cities.⁵⁵ Consequently, their perception of, beliefs and attitudes about illnesses and health conditions usually develop from their rural backgrounds and the views of senior members of their families.⁵⁶⁻⁵⁷ In addition, a number of studies claim that the classification of illnesses and treatment largely depends on the perceptions people have developed or are developing about diseases.⁵⁸⁻⁵⁹ However, the perception of pregnancy and childbirth is somehow different from that of other diseases and associated treatment.

In Bangladesh, pregnancy and childbirth within marriage are always welcome. A woman without a child has no dignity in society. A woman's ability to carry and bear a child is considered as something that needs to be celebrated and a source of status for her family. As one study mentions,

*The news of the first pregnancy is hurriedly dispatched to the girl's father and there is always much enthusiasm on such occasion. There is a popular belief in the rural areas that unless the girl becomes a mother, her position in her father-in-law's house remains insecure and this is also one of the reasons why the girl's side is happy to hear the news.*⁶⁰

However, pregnancy cannot be declared publicly; even a pregnant woman cannot share her complications with her husband or mother-in-law unless she really needs to because of circumstances beyond her control. She always endeavours to carry out household activities as long as possible. Women generally feel proud if they can manage their household chores during pregnancies and deliver babies with assistance from relatives or TBAs without disturbing male members of the family, particularly husbands, in arranging hospital care.

Normally, pregnancy and childbirth are not considered as illnesses, but are seen as normal activities of women which they have to carry out at a particular stage of their lives. Some people, nonetheless, think that both pregnancy and childbirth can lead to greater risks in a woman's life. The perception of pregnancy and childbirth as not being illnesses makes people indifferent to seeking proper medical care and booking hospital beds prior to delivery. Even in some cases, the deaths of either child or mother or both are not taken seriously and complications in child delivery are considered as the result of the influence of evil spirit and specific food eaten.⁶⁰⁻⁶² This fatalistic view regarding pregnancy and childbirth creates a perception—the condition is not amenable to treatment—that works as an effective barrier to making a timely decision on seeking timely care (the first delay).

This perception of course varies across region and social class. Being pregnant in urban working class and rural women relies on some physical symptoms, such as a delay in their menstrual cycle, morning sickness (nausea and vomiting), lack of appetite, feeling of dizziness, sensitivity to taste and smell in food and so on. Labour before delivery is normal and is not seriously taken into consideration. In contrast, women from middle class family with urban background basically get pregnant according to their plan. For making their assumption on pregnancy, based on physical symptoms, more accurate, they go to medical centres for urine tests. Most of them become scared of the distress of labour.⁶³⁻⁶⁴

The current study found that pregnancy and childbirth-related perception has been changing due to raising awareness about pregnancy and childbirth through GO and NGO interventions as well as huge media coverage. Other studies also support this argument.⁶⁵⁻⁶⁹ From what was observed during the field trip and from ideas gained about pregnancy while talking with respondents, most women perceive that they have to abstain from doing heavy and hard work though doctors now suggest engaging in household works as much as possible with a view to delivering babies in a normal way. In this regard, one respondent during the interviews said that in the past, all pregnant women used to carry out all household activities. Nowadays, a new thinking that pregnant women should take rest as much as possible has developed. This trend makes them confused about carrying out household work during pregnancy.

The study found that almost all respondents (96.9%) said that every mother should get immunised for the protection of both mother and would-be-born babies (Table 6). The same number said that they had to be always cautious in their movements during their pregnancy. However, very few among them (3%) mentioned making regular visits to clinics/hospitals for check-ups. It was observed that though they were aware of being careful during pregnancy, circumstance forced them to disregard this rule. Most respondents were poor and they did not have enough money to engage maids or use other forms of domestic help and had to do all the hard work themselves. They were, of course, cognisant of the fact that with proper rest and support from others in managing household work, it would be easier to deliver babies normally. Most rural respondents said that they had to carry out all household chores and contribute to farming activities being unable to obtain anybody to help.

Some rituals centring on childbirth may cause adverse impacts on the health of both mothers and children. Prior to starting labour pain, a separate room is set up where pregnant mothers deliver their babies. For instance, Hindus usually prepare a separate room for delivery and seclusion, whereas Muslims use their kitchen or the room where *dhekhi* (an implement for paddy and wheat husking) is kept. This practice of seclusion has been followed for two reasons: expectant mothers could not be able to pollute the outside world and could be saved from evil spirits. Belief in pollution is stronger among Hindus than Muslims because the former observe seclusion for 30 or 40 days, while the latter for seven days only. Mothers usually take many precautions to save the lives of themselves and their newborn children. They live in a secluded room, put pieces of iron around it, place a piece of leather near the bed, burn incense and make outsiders clean their feet with water before entering the room.⁷⁰⁻⁷¹

Table 6: Perception of how life should be patterned during pregnancy (multiple) healthcare seeking

Sorts of perception	Frequency (%)
Cautious movement all time	158 (96.9%)
Taking all inoculations	158 (96.9%)
Check up regularly	5 (3.1%)
Total	163 (100%)
No response	2

Source: Field Survey

After delivery, a kind of bamboo reed is used to cut the umbilical cord though a razor, considered to be an instrument of operation in the hospitals, is readily available. The placenta is buried deep down in the earth so that no animals or evil spirits can drag it out. It is believed that if anyone touches the placenta, mothers or babies will face physical complications.⁷² After childbirth, Hindu women are restricted from eating meat or fish for 30 days, while a seven day restriction is observed by Muslim women. Other forbidden food includes bananas with seeds, eggs and leafy vegetables, especially pumpkin leaves. Some believe that mothers should take nothing except water for the first few days after delivery. For instance, one Hindu participant reported that pregnant mothers should not eat in the evening or on a moonless night. Doing so would annoy *Rahu* (a Hindu god).⁷¹ All these practices result in protein deficiency in the mother's health.

This traditional practice (seclusion) does not either allow health workers to enter the secluded room for checking the health condition of both mother and child or permit mothers to go to hospitals for post-natal check-ups. Moreover, the secluded room tends to be unhygienic being always closed, dark and with poor ventilation. This unhygienic environment basically is unsafe for both mother and child though it protects the 'sanctity and purity' of the common people.⁷³ Furthermore, perception of childbirth as 'normal' and 'natural' deters pregnant women from seeking any assistance at delivery time and causes the first delay in making decision about seeking healthcare.⁷²

Lack of decision making power of women

Women usually experience discrimination in every stage of their lives. This discrimination in food intake and other facilities, such as education and recreation, has deleterious effects on their health. It has been argued that feeding practices, favouring boys over girls from childhood to adulthood, result in under nutrition and micronutrient deficiency in girls and women, which might ultimately bring adverse effects on pregnancy and in its aftermath.⁷⁴

In addition, a large number of women do not have decision making power and opportunities to move outside of family for various purposes, including seeking

healthcare services. The decision for seeking healthcare services is mainly made by male members of the household, husband in particular.⁷⁵⁻⁷⁶ As shown in Table 7, the number of husbands controlling and implementing everything in the family in Bogra was three times higher than that in Rajshahi. This indicates that a positive change in the family domain is yet to emerge in Bogra. The slums there are more conservative than those in Rajshahi. On the other hand, half of respondents from Shapahar reported that their husband was the sole person in controlling and implementing everything relating to family matters. The number of women directly involved in controlling and implementing family business in Shapahar, was very insignificant compared to that in either Bogra or Rajshahi. The most interesting finding is that 38% of respondents from Shapahar reported that both husband and wife shared household matters together, whereas this figure was significantly low in Bogra (1.6%) and in Rajshahi (6.6%). Thus, gender parity in Shapahar was higher than in Bogra and Rajshahi. Various factors, such as development initiatives that create opportunities for females, huge media coverage about positive roles they can play in society, and the increasing number of female enrolments in school, might be serving as driving forces for this positive change in rural areas. One of the important reasons for Bogra and Rajshahi conditions could be that their mentality (patriarchal and traditional) remains the same as it was before.

The percentage of joint (husband and wife) decision on seeking women reproductive healthcare increased to 42% in 2007 from 23.5% in 2004.⁴¹ It also revealed that the percentage of women taking their own decisions about ANC services doubled in four years; the figure for 1999 was 19%, while it became 38% in 2003. When both husband and wife took the decision together about ANC services the possibility of receiving this service became strong.⁷⁷ Furthermore, around half (51%) of mothers took the decision themselves on seeking assistance during the baby delivery period. Twenty four percent respondents mentioned that their husbands were the sole decision maker for seeking delivery assistance followed by in-laws (13%) and their own parents (9%).⁷⁸ However, this study's findings do not contradict the national scenario. As revealed in Table 8, the number of decisions about seeking healthcare services

Table 7: Distribution of controllers in areas studied

Areas studied	Types of controllers and implementers						Total
	Husband	Wife	H&W	Mother/in-laws	Father/in-laws	Others	
Bogra	30 (18.7%)	24 (15%)	1 (0.6%)	1 (0.6%)	1(0.6%)	3 (1.9%)	60 (37.5%)
Rajshahi	10 (6.2%)	33 (20.6%)	4 (2.4%)	11 (6.9%)	2 (1.2%)	--	60 (37.5%)
Shapahar	18 (11.2%)	3 (1.8%)	15 (9.4%)	--	4 (2.4%)	--	40 (25%)
Total	58 (36.2%)	60 (37.5%)	20 (12.5%)	12 (7.5%)	7 (4.4%)	3 (1.9%)	160 (100%)

Source: Field Survey

Table 8: Distribution of decision makers about seeking healthcare in areas studied

Areas studied	Types of decision makers							Total
	Husband	Wife	H&W	Mother/ in laws	Father/in-laws	All Family members	Others	
Bogra	17 (10.6%)	2 (1.2%)	31 (19.4%)	3 (1.8%)	2 (1.2%)	2 (1.2%)	3 (1.8%)	60 (37.5%)
Rajshahi	13 (8.1%)	6 (3.6%)	29 (18.1%)	10 (6.2%)	1 (0.6%)	--	1 (0.6%)	60 (37.5%)
Shapahar	2 (1.2%)	1 (0.6%)	33 (20.6%)	--	2 (1.2%)	--	2 (1.2%)	40 (25%)
Total	32 (20%)	9 (5.6%)	93 (58.1%)	13 (8%)	5 (3%)	2 (1.2%)	6 (3.6%)	160 (100%)

Source: Field Survey

made by both husband and wife was higher in three areas compared to either husband or wife. The highest gender parity was in Shapahar (82.5%) followed by Bogra (51.6%) and Rajshahi (48%).

Financial factors

Costs associated with seeking MHC services seem to have discouraged pregnant women, particularly the poor, from receiving healthcare services at the proper time. As the government and different NGOs have been involved in providing primary healthcare services, including maternal, to the common urban people, pregnant mothers can easily receive basic MHC services that include ANC. However, if a mother's condition in rural areas becomes complicated before delivery, she needs to be transported to a district hospital where all facilities are deemed to be available. If the district hospital fails to provide proper treatment, the pregnant mother is transferred to the upper level hospital i.e., medical college hospitals located in a divisional or capital city. Transportation costs from rural areas to the district or divisional headquarters in an ambulance or just a microbus is much higher than other related costs. For instance, one participant mentioned that she spent around 2,000 Taka (equivalent to US\$ 28) on travelling from her home to the district hospital during her labour.

Public healthcare services in developing countries are theoretically free. In practice, widespread corruption (including misuse of resources and bribery) among health staff makes free services costlier. Government doctors in Bangladesh demand extra money from patients for their services that are supposed to be free. Patients are sometimes willing to pay extra or unofficial money for various reasons, such as lack of basic services or to receive due or additional care from hospital personnel.⁷⁹ This is also true for other South Asian countries, such as Pakistan. A woman there explained that a private midwife was happy to get 10-15 rupees, but in hospital, you had to pay the same amount to each staff and the doctor's fee was on top of that.⁴⁴ In this regard, the Bangladesh scenario is depicted as follows:

Poor patients were forced to pay for medicine, laboratory investigations, blood transfusion and foods causing huge financial burden. They had to pay money to the ayahs, trolley pullers and gatekeepers at different points for the simplest tasks. On refusal of payments, the patients and their families were misguided and the staff became uncooperative.⁵²

Another study suggests that middle and poor income patients in Bangladesh pay more unofficial fees in government hospitals compared to rich patients.⁸⁰ The study has also found a similar scenario and one participant complained that after she got admitted to a hospital she had to pay extra money for proper service and another reported that a surgeon delayed her operation for ransom just before her delivery time.

Corruption associated with medical practices of doctors and drug management is widespread in Bangladesh. In most cases, doctors send their patients to private clinics for pathological tests, available at government hospitals in order to earn extra money known as 'commission'. Doctors sometimes unethically ask patients to have pathological tests conducted in their recommended clinics that usually pay commission to them even

though patients already have pathological reports on the same issue from other clinics. They also force patients to purchase medicine from private pharmacies. The irony is that patients usually are forced to buy medicines supposed to be given for free at the public hospitals from outside with government stamps. Moreover, doctors sometimes prescribe costly medicines in order to receive graft from multinational companies. Even in some cases, private doctors ask about a patient's economic conditions before prescribing drugs. The more a patient is financially well-off, the more expensive brands are prescribed.

There is no information indicating total costs of MHC services, including transportation, drugs, tests and medical services. However, some studies calculated average costs of normal and caesarean delivery in which indirect costs like transportation and unofficial fees were not included.⁸¹ They indicate that the cost for caesarean delivery is five to ten times as much as cost for normal. In most cases, families do not have sufficient money to bear expenses relating to caesarean delivery that force them to borrow money from other sources. The study (Table 9) found different ways respondents managed extra money when needed.

The field experience suggests that respondents in Rajshahi were more aware of their health concerns. They tried to obtain healthcare services from the nearest centre from the first trimester of their pregnancies until delivery. After conception, they saved little amounts of money on a daily or monthly basis. They believed that this saving could give them the support they would need if they fell into hardship.

Generally, pregnant mothers tend to go to natal homes for their first delivery. So any costs-related with MHC services, particularly childbirth, are borne by natal families. For this reason, one respondent told that her husband did not need to borrow money from others. Moreover, around 95% of respondents reported that they were able to manage extra money very quickly. Table 10 shows the different methods used by respondents for repaying borrowed money.

Around half of respondents returned borrowed money over a period of time. One quarter of respondents said that they did not need to repay as that money came from their relatives. As Bangladesh is a traditional society, there is a custom that if someone borrows money from close relatives, it is sometimes not mandatory to return that money. The rest repaid money after obtaining loans from micro-credit agencies or following the rule of making extra money by investing more time for work and having less food. Ms Shapla, a participant in the fourth FGD and who underwent Caesarean delivery had to manage extra money by borrowing at a high interest rate. Her family also sold poultry and two goats to manage to get the extra money. After leaving hospital, they provided extra labour in the lenders' lands as share-croppers. In order to repay the borrowed money, they also sold shared crops. Even after doing so they were unable to repay all the money within a year. In another instance, Mr Monir, a FGD participant took his wife to a clinic situated at Nazirpur for delivery. At that moment, he had around 10,000 Taka in his hand. The Caesarean cost was around 13,000 – 15,000 Taka. So he was forced to sell his essential goods to arrange for the rest of the money.

Table 9: Different ways of managing extra money if needed

Types of ways	Frequency (%)
Borrowing from friends, relatives and money-lenders	65 (50.4%)
Saving	63 (48.8%)
Share-cropping	1 (0.8%)
Total	129 (100%)
Missing	31

Source: Field Survey

All these facts suggest that high costs associated with seeking MHC services create delay in people making decisions to seek healthcare services (the first delay) from facility centres.^{82,83}

Organisational barriers

Gender dynamic

Gender of health personnel is an important factor that influences pregnant mothers' decisions about utilization of formal MHC services. As Bangladesh is a conservative country and the urban slum dwellers and rural women researched have traditional ideas and beliefs, female patients are hesitant to go to the centre for receiving treatment from male doctors during the complication period, despite the availability of female paramedics for primary care. Some authors have identified a number of key constraints Bangladesh rural women have been facing in receiving health services e.g. *purdah*, the unavailability of female doctors etc.⁸⁴ Women also need more personalized and emotion-laden services during the delivery period. Like many other cultures, childbirth-related activities in Bangladesh are deemed to be female activities. It has been observed during the fieldwork that heads of all service centres except two were males. For this reason, cultural practices and taboos may deter pregnant women from receiving healthcare services from there (third delay).

Quality of care

Adequate physical facilities, such as health personnel, infrastructure, and medicine, behaviour and attitude of service providers towards service users, service providers' extent of knowledge and use of hygienic procedures when dealing with patients are important determinants of understanding the quality of services. A few studies found the pitiable condition of physical facilities in rural healthcare centres and harsh, rude, and

Table 10: Distribution of controllers in areas studied

Types of repayment methods	Frequency (%)
Very slowly	34 (51.5%)
No repayment	16 (24.2%)
Repayment with micro credit	10 (15.2%)
Repayment with more work and less food	6 (9.1%)
Total	66 (100%)
Missing	95

Source: Field Survey

uncaring behaviour of service providers towards patients. During delivery, pregnant mothers prefer people as their assistants who are well-mannered. As pregnant mothers perceive rude and harsh behaviours of health personnel working at government hospitals, they prefer to seek assistance from TBAs or local unqualified 'doctors' during baby delivery.^{85,86}

One participant of the study on an FGD held in Rajshahi stated:

"Ratan dektar is very good. His behaviour is amicable and he gives patients much time to explain reasons for diseases and how to take the given medicine. He provides medicine in credit if anybody does not have money during seeking treatment period. All these reasons led all nearby mothers to go to him for first hand treatment."

In addition, as reported in a study, 90% of patients who had visited qualified private and unqualified practitioners were satisfied with their behaviours and attitudes towards them.¹⁷ Only 66% were satisfied with government service providers. It also found that government officials behaved roughly with patients who came from poor socio-economic background. Another study documented that overall quality of EmOC in all public health centres except the medical college hospital was poor. The worst quality was found at *upazila* level.⁶

The study (Table 11) found that half of the health personnel interviewed did not have any training on baby delivery. Only three had training and two of them were in NGOs. All except the chief medical officer of the Shapahar upazila health complex (SUHC) knew of pregnancy complications. All agreed that they had capacity to refer the complicated cases to the upper level hospitals. Four of seven were handed pregnancy-related pamphlets.

Table 11: Knowledge of health personnel on baby delivery and its related issues

Name of Centres	Training on Delivery		Knowledge of Dangerous signs		Referred hospital		Pamphlet on delivery	
	Yes	No	Yes	No	Yes	No	Yes	No
SUHC		✓		✓	✓			✓
NUHFWC	✓		✓		✓		✓	
FCC		✓	✓		✓			✓
BCRHCC	✓		✓		✓		✓	
KCRHCC		✓	✓		✓			✓
NCRHCC	✓		✓		✓		✓	
KC		✓	✓		✓		✓	

Source: Field Survey

(Note: NUHFWC=Nirmoil Union Health and Family Welfare Centre, FCC=Fukanda Community Clinic, BCRHCC=Bogra Comprehensive Reproductive Health Care Centre, KCRHCC=Kashiadanga Comprehensive Reproductive Health Care Centre, NCRHCC=Noadapara Comprehensive Reproductive Health Care Centre and KC=Kazla Centre)

The study also uncovered that all health personnel but the chief of the SUHC had knowledge of identifying dangerous signs of pregnancy. As of Table 12, four out of seven health personnel had given decisions about the immediate needs of patients. Most health personnel’s treatment was rarely reviewed. However, the conduct of health

The study also found that the urban health staff use hygienic methods more than the rural health staff. As reported in Table 13, BCRHCC and KCRHCC followed all types of hygienic methods for keeping patients out of danger. Contrary to this, the NUHFWC did not follow any methods. The SUHC used only one method (not using the used needles), while the FCC was trying to follow all hygienic procedures. However, it is doubtful that all hygienic procedures are actually followed at the FCC. Highlighting positive images of the centre and fear of losing jobs could be reasons for providing such types of information. The NCRHCC staff did not wash their hands before touching patients’ bodies and those at the Kazla centre did not wear gloves and use barriers when patients were examined.

How established service providers are may sometimes be an important indicator of the quality of services. One participant of the FGD held in rural areas (Shapahar) reported that the head of their nearest centre was aged and suffered from night blindness. So if someone went to the centre for emergency treatment at night, they hardly received any quality care or, in some cases, any treatment. Most participants of other FGDs held in Rajshahi city complained that ultrasound and urine test results of their nearest centres invariably led them to wrong directions; pregnant women were dismissed as non-pregnant and vice-versa. One of the reasons for this misleading information, they mentioned, is that technicians were incompetent because of old-age. All

these facts suggest that healthcare quality in urban areas is better than rural. Moreover, the NGOs are providing better quality of services compared to the governmental sector.

Inefficient distribution of benefits

The UPHCP, one of the important non-government service providers in the study urban areas, has a provision to cater 30% of its services free to the poor. The question that emerges then is how the poor are to be defined and the extent of free services gauged. If all patients who come one day to the centres are poor, are they all rendered free services? The project manager reported during the field visit that local political leaders created pressures on him to give free services to the non-poor. He also showed many fake documents that many non-poor used for receiving free services. One of the main reasons for entertaining undue requests causing exclusion error, as mentioned by the manager, is to continue project activities smoothly. Another study indicates that the poor have been defined based on reports made by local health workers who could be biased towards someone that can cause both inclusion and exclusion errors.⁵⁰ As observed, it also introduced an ANC package worth 50 Taka for pregnant mothers reaching the last trimester to monitor the progression of pregnancies. Higher delivery costs for the Caesarean are not fully waived for the poor women. So the lack of well-defined free services and high costs of comprehensive MHC services could create tensions among poor mothers that deter from going there for treatment.

Lack of coordination, ownership and people’s participation in policy

Bangladesh adopted a national health policy (NHP) in 2011 but is yet to implement it completely. The reasons for the delay in implementation are the bureaucratic and centralised policy formulation process, the lack of sin-

Table 12: Capacity of health personnel to identify pregnancy-related complications and their treatment

Name of centres	Identifying dangerous signs		Decision on necessity		Judgment of treatment		Review treatment	
	Yes	No	Yes	No	Yes	No	Yes	No
SUHC		✓		✓		✓		✓
NUHFWC	✓		✓			✓		✓
FCC	✓			✓		✓		✓
BCRHCC	✓		✓			✓	✓	
KCRHCC	✓			✓		✓	✓	
NCRHCC	✓		✓		✓		✓	
KC	✓		✓		✓		✓	

Source: Field Survey

Table 13: Distribution of hygienic procedures the health staff of centres have been following

Types of procedures	Name of health centres						
	SUHC	NUHFWC	FCC	BCRHCC	KCRHCC	NCRHCC	KC
Hand washing before touching body or organ	No	No	Yes	Yes	Yes	No	Yes
Wear gloves	No	No	Yes	Yes	Yes	Yes	No
Use barriers (protective goggles, face mask or aprons)	No	No	Yes	Yes	Yes	No	No
Not recapping or bending needles	Yes	No	Yes	Yes	Yes	Yes	Yes
Proper instrument procedure	Don’t Know	No	Don’t know	Yes	Yes	Yes	Yes
Disposal of medical waste	No	No	Yes	Yes	Yes	Yes	Yes

Source: Field Survey

cere political will and resistances from different professional and pressure groups. Moreover, people's expectations and participation are being ignored. For instance, most policy makers in Bangladesh are male though the prime minister and the leader of the main opposition party are women. Apparently, these two leaders show an inclination to the so-called traditional patriarchal norms, values and ideologies. The recent trend suggests that a small number of females with urban and higher educational backgrounds are becoming policy makers. They hardly protest discrimination against women. If they, in certain cases, raise their voices, their concerns are on the improvement of conditions for urban and better educated women. That means, poor women's health problems are not duly addressed. One woman activist has recently remarked that there was no discussion or special stories in newspapers on reproductive health when the International Population's Day was observed at the national level.⁸⁷

Despite having a NHP, Bangladesh has many segmented policies and unsustainable programs and projects due to the foreign aid dependence and the existence of two wings within the Health ministry that create many problems, such as duplication of the services, rivalry between service providers, overlapping among different policies and weakening on-going implementation. Local needs are not reflected in these policies as the involvement of external forces in policy agenda setting has always been high. Even the newly adopted NHP fails to provide any direction about its implementation and how to stop the malpractices of doctors and the irregularities in the health sector. All these factors seem to have created anomalies and indiscipline that have prevented people from receiving due treatment.

Conclusion

As a substantial number of mothers researched have healthcare centres within their reach, distance to the healthcare centre from their homes appears not to have any vital influence on the utilisation of primary, particularly maternal, healthcare services. However, distance, waiting time and opportunity costs are barriers for rural pregnant mothers to receiving MHC services as mothers with rural backgrounds need to travel for longer distances to reach a health centre, wait a longer time for receiving treatment and kill more opportunity time that can be used for productive purposes compared to urban mothers. However, regarding healthcare seeking decision making process, rural area is in advance compared to urban areas.

People's perception of pregnancy and childbirth, high financial costs associated with health seeking behaviour owing to extra money required, lack of female health staff, low level of educational background and early pregnancy due to marriage at an earlier age are potential barriers to the use of MHC services. Other important barriers to access include lack of a guiding principle in the health sector, improper distribution of benefits and low quality of services. All these factors may delay the seeking of MHC services at the proper time.

Many more healthcare centres are now available in urban than rural areas. Both government and private (including NGOs) are providing MHC services on a competitive basis which ensures better quality of care and provides less expensive services. In addition, many

NGOs are targeting poor women to provide these services at a minimum cost. Even they can easily refer complicated cases to the nearby big hospitals due to good road and communications services. Sometimes, they also take service users' views about the improvement of quality of care and in expanding coverage into consideration seriously. In contrast, only government healthcare services and limited range of NGO services are available in rural areas. The quality of rural health care is poorer and it is difficult to transfer complicated cases to higher levels due to dismal road communication. The study findings indicate that health personnel in urban areas use more hygienic procedures than those in rural areas. The quality of care in the urban area is therefore better compared to the rural. All these factors hint that urban pregnant women face relatively less physical, social and organisational barriers to receiving proper healthcare services compared to rural mothers. The following paths are suggested in order to improve the worse condition of maternal health in the studied areas.

- Child marriage must be stopped.
- Emergency obstetric care should be available at free of costs for the poor.
- Financial incentives can be given to the poor to meet opportunity costs.
- A guiding principle to monitor and evaluate activities of all health workers is a must.
- Opening and closing time of the service centre need to be adjusted with the time suitable for the needed people.
- Many healthcare centres in rural areas need to be established so that all women can easily avail the services.

Competing interest

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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