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Full Length Research Paper

Perception of and Awareness about Medicalisation of Pregnancy and Childbirth in Bangladesh: A Case of Rajshahi Metropolitan City

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The development of different interventions (antibiotics, Caesarean section and blood transfusion) and shortcomings of these interventions have created mistrust and confusion about the introduction of highly bio-medical measures at the country or community level. Exploring this debate about the medicalisation of pregnancy and childbirth (MoP&C) at local level of Bangladesh is a time-demanding attempt. The main objective of this paper was therefore to search the effectiveness of all these interventions in the urban context of Bangladesh. One hundred reproductive aged women delivering baby one year prior to the study from two slum areas of Rajshahi Metropolitan City (50 from each area)—Zianagar and Baze Kazla—were interviewed using ‘multistage sampling’ method during September and October 2013. Getting married at earlier ages, facing no pregnancy-related complications, hardly using any methods for being pregnant, readily availability of ante-natal care services, having knowledge about dangerous signs of pregnancy and giving preference for delivering baby at facility centres with the assistance of skilled attendants were the main findings of this study. All these findings suggest that mothers are rather influenced by bio-medical (pregnancy and childbirth is a medical issue that needs certain interventions) than by traditional (no need any interventions for pregnancy and childbirth) approach of pregnancy and child delivery. It concluded that medicalisation process starts just after marriage to avoid unwanted pregnancy but is acute between pregnancy and childbirth. Lastly, it suggests for giving due attention to social causes of high maternal deaths in order to reach the 5th MDG at the proper time (2015).

Keywords: Medicalisation, Bangladesh, Pregnancy and Childbirth

INTRODUCTION

The development of different techniques (antibiotics, Caesarean section and blood transfusion) and the availability of these facilities in child delivery be it in hospital or at home have had a significant effect in the reduction of high maternal mortality rate (MMR) in European and North American countries between 1880 and 1950. All these European and North American countries gave priorities on instrumental deliveries and the attendance of skilled health personnel at delivery time. That means, the medicalisation of pregnancy and

childbirth—MoP&C—ante-natal care (ANC), Caesarean section, blood transfusion, delegating power of delivery from women (traditional birth attendants, midwives) to men (obstetricians) has been thought to have had significant impact on the achievement of the present MMR in these countries.

However, there was a subtle difference in the reduction of MMR among these countries. The northern European countries (Denmark, Sweden, The Netherlands and Norway) reduced quickly than the other European

countries and the USA. The former group countries gave less emphasis on instrumental deliveries and encouraged trained midwives to attend at home delivery. Conversely, the latter prioritized the high proportion of instrumental deliveries and of births attended by doctors, particularly obstetricians (Chamberlain, 2006; De Brouwere, 2007; De Brouwere *et al.*, 1998; Loudon, 2000). Over-medicalisation of pregnancy and childbirth and its bad effects on health of mother and child in developed countries, particularly the USA, has led feminists to advocate home delivery with midwifery skills (Anspach, 2010). All these issues (less or over medicalisation, recourse/return to home delivery) have created mistrust and confusion about the introduction of highly bio-medical interventions at the country or community level which motivated me to explore this medicalisation issue in Bangladesh context.

Bangladesh has mainly adopted Western medical-oriented approaches—providing western medicare at the state level—though indigenous and homeopathic healthcare services co-exist. Most of the health-related policies have been formulated following the bio-medical approach. Resultantly, the main focuses of these policies have been spending much money on hospitals, clinics, ambulatory services, drugs and so on (Barnum and kutzin, 1993; Filmer *et al.*, 1998; Hahn, 1983; Baer *et al.*, 1997; Makinen *et al.*, 2000; Wagstaff, 2002). The main ethos of this approach is ‘one size fits for all.’ That means, the same symptoms can be found everywhere and treatment for these symptoms is society-neutral (Lorber and Moore, 2002). As most policy makers in the health sector come with medical science backgrounds, their policies ultimately focus on the bio-medical approach.

It is apparent from many instances that health services and programmes are developed and established without taking into consideration the lifestyle of the target population (Marshall and McKeon, 1996). Again, most of the maternal health-related policies give emphasis on direct causes of maternal death bypassing indirect causes. It is therefore urgent to develop a bio-social approach which focuses on not only medical causes but also social factors relating to the availability of and accessibility to maternal healthcare services. The experiences of Sri Lanka and Malaysia suggest that when a synergistic package of health and social services reaches the poor, the MMR easily goes down (Pathmanathan *et al.*, 2003).

Bangladesh is one of the countries where Caesarean section (CS) delivery rate is higher compared to other countries (Chong and Kwek, 2010; Bhuiya, 2009; Leone *et al.*, 2008). This incremental trend in CS deliveries brings adverse effects (anaesthesia accidents, damage to blood vessels, accidental extension of the uterine incision, damage to urinary bladder and other organs) on mothers’ bodies (Lumbiganon *et al.*, 2010; Parkhurst and Rahman, 2007; Wagner, 2000). The same findings—

larger number of both immediate and late complications in Caesarean than in normal delivery cases—found in Bangladesh (Begum *et al.*, 2009).

Bangladesh is also one of signatories at the Millennium Development Summit in 2000 and has committed to meet the eight goals (known as Millennium Development Goals [MDGs]) at the specific time. Out of eight goals, the 5th MDG is to improve maternal health by reducing MMR by two-third between 2000 and 2015. Recently, a lot of research (WHO *et al.*, 2012; Hogan *et al.*, 2010; Lozano *et al.*, 2011) reported that Bangladesh is on track to achieve the 5th MDG. The main research question is how has Bangladesh—where most women deliver babies at home and where the healthcare system is weak—been able to reduce high MMR?

The findings of all these studies and the debate developing around different interventions, as discussed earlier, stimulated me to search the extent of the effectiveness of all these interventions in Bangladesh urban context. In other words, how far this medicalisation process brought positive results in maternal health was the main focus of the study. In this regard, two propositions were formulated to test at the field level.

1. Whether does socio-economic condition support the introduction of different medical interventions in place of traditional systems?
2. Do all these interventions create further inequity in terms of the availability of and accessibility to maternal healthcare services?

Objectives of the study

The main aims of the study were to find out how far the MoP&C has been developing in Rajshahi City, how much it had contributed to the current achievement (reduction of high MMR and positive effects in mothers’ lives) and how people perceived it. The study mainly focuses on perception and awareness people, particularly mothers, have about the medicalisation of pregnancy and childbirth. The study therefore intended to include all aspects related to pregnancy and child delivery. It will also explore different types of ANC services, kinds of healthcare centres for receiving ANC services and delivering babies and of different birth attendants.

The rest of the paper is organised in the following manner. The next part highlights the research technique the study followed for collecting primary data. The results of the study are described in the third part which is followed by the discussion of the main findings of the study. A conclusion is drawn in the final part.

METHODOLOGY

The study collected both primary and secondary sources of data with the specific aim at finding out poor mothers’ perception and awareness about the MoP&C. Secondary data were collected from newspapers, journal articles,

books and web-based materials. Here, the process of site selection and of data collection is highlighted for clearly describing the methodology the study followed.

Area Selection

Rajshahi region, one of seven greater regions in Bangladesh, was selected due to its worst maternal health condition. The MMR, the proportion of births delivered in facility centres and attended by skilled birth attendants and the coverage of ANC services were used as main criteria of the selection of the region (here Rajshahi). The following figures suggest that Rajshahi situation is not better compared to other regions in Bangladesh.

- Rajshahi (2.9) and Bogra (3.0) regions within Rajshahi division have not been able to reduce MMR as much as other regions like Barisal (2.6), Pabna (2.6), Tangail (2.6), Dinajpur (2.8) (BIDS, 2003).

- The proportion of delivery done by qualified doctors in Rajshahi is 22.1 percent which is lowest compared with other divisions (NIPORT *et al.* 2012).

- 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 (NIPORT *et al.* 2009).

- The percentage of mothers with at least one ANC visit in Rajshahi is 71.3 while the figure for Khulana and Rangpur is 77 and 77.1 respectively (NIPORT *et al.* 2012).

Around 60 percent of mothers in Rajshahi division had no access to ANC services provided by medical personnel whereas only half of the mothers in Khulna division had no access (NIPORT, 2001)

Site selection

Rajshahi City is one of the metropolitan cities in Bangladesh. It is on the northern bay of the Padma River and is surrounded by Paba District. Total area and population of the city is 96.72 km and 3,88,811 respectively. Population density is around 4,000 per square km (Mia, 2003). It has 30 wards. The area was then chosen by using the 'multistage sampling' method. Reproductive aged women living in remotest areas and disadvantaged position and delivering baby one year prior to the study were the main sources of information relating to pregnancy and childbirth. Zianagar and Baze Kazla are two remotest areas in Rajshahi city where poor people live in. The main target of the research was to interview slum dwellers. Fifty respondents from each area were targeted to be interviewed.

The study sites

Zianagar is in the 4th Ward of Rajshahi City Corporation. It is 1.5 km on the east-west and on the north-south.

Total number of households in Zianagar is 820. Baze Kazla, one of the densely populated areas, belongs to Ward no 24. There are 390 households in this area.

Development of research instrument

Initially a draft interview schedule was developed on issues, such as socio-economic background of the respondents, methods used for being pregnant, how many times and what types of ANC services mothers received, where and how the baby was delivered. Several discussions were held between the Researcher and a Research Assistant (a M.S.S female student of the Department of Sociology, University of Rajshahi) and both found certain anomalies regarding ordering the questions and then felt the necessity of adding few more questions with changes and adjustments in the interview schedule. With some addition and correction, a semi-structured interview schedule, mainly close ended questions, was finalized for pre-testing.

The pre-test was conducted among eight respondents in two areas for testing the effectiveness of suitability of the research instrument and discovering possible weaknesses, inadequacies, ambiguities and problems so that they could be corrected before actual data collection took place. It was also done in order to test the need of adding new questions so that clear information on certain issues could be addressed in the interview schedule. 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 poor mothers.

The final interview schedule has four parts. The first part asked about socio-demographic profile of the respondents. The next part dealt with issues relating to how mothers became pregnant while the third gave emphasis on women's ideas about ANC, including dangerous signs of pregnancy. The final part enquired how and where mothers delivered babies last time as well as who were present during the delivery time.

Once the interview schedule was finalised after the pre-testing, the RA prepared herself for conducting interviews. Field investigation began in September and ended in October 2013. The first woman was selected by using systematic random sampling. Based on her knowledge regarding the availability of nearby mothers delivering at least one baby last year, the consecutive respondents were selected (by using snowball sampling technique). Fifty mothers from each area (total 100) were interviewed. On an average, the time required for interviewing females is 40 to 50 minutes.

After completing the field investigation, all the interview schedules were edited and some errors were detected and corrected accordingly. All data was coded and analyzed through the Statistical Package for Social Sciences (SPSS) program. Then it was presented as tables. Using the SPSS, all cross tables were prepared.

Table 1. Basic demographic features of the respondents

Parameters	Description (%)			
	15-20	21-25	26-30	31-35
Age classification	30	45	22	3
Educational qualification	Illiterate	Primary	Secondary	Higher secondary
	25	69	5	1
Age during marriage	12-14	15-17	18-20	
	54	41	5	
Number of family members	2	3	4	5
	24	40	27	9
Housing pattern	Mud	Building	Semi-building	
	51	39	10	
Types of latrine	Sanitary	Mud	Open-space	
	60	38	2	
Sources of drinking water	Supply water	Tube well and pump	Pond and river	
	46	51	3	
Occupation	Housewife	Housemaid	Small business	Other
	90	4	5	1
Monthly income (Tk.)	<5,000	5,000-10,000	10,001-15,000	>15,000
	50	45	4	1

RESULTS OF THE STUDY

Basic demographic features of the respondents

Table 1 shows that three quarter respondents were below 25 years old and all of them were married and Muslims. However, almost all of these mothers got married when their age was below 18. That indicates that marriage at early age is significantly prevalent in the study areas. A quarter of the respondents were illiterate while 69 percent had primary level of education. Nearly one quarter households had two family members whereas four in 10 households had three members and over a quarter had four. That means most of the households are nuclear family. The number of households with kutchra (mud) type of residential pattern was 51 which is followed by Pucca—concrete building—(39). Six in ten respondents had sanitary latrines and the rest had kutchra (either bamboo or straw or both) type of latrine. That suggests, they are not fully covered by sanitary facilities. A half of the respondents had access to safe drinking water (tube well or pump) which is really good for keeping health free from water-borne disease. Most of the respondents (90%) were housewives. That indicates, they are not economically empowered and fully dependent on incomes of their family male members, particularly husbands. A half of the respondents had monthly income less than Tk (Tk. means Taka, Bangladeshi currency. 1US\$ is equal to Tk. 78, as of February 2014). 5000 which is followed by the respondents with monthly

income between Tk. 5001 and 10000 (45%) and the respondents having monthly income over Tk. 10,000 (5%).

Perception of pregnancy

As shown in Table 2, almost all of the respondents (94%) used contraceptives before being pregnant. Out of ninety-four contraceptive users, 88 (94%) used pill. This suggests that, like a traditional society, decision about using or not using contraceptive comes from male-sides which influences females using that type. Another reason is that since women are more aware about the burden of bearing and rearing more children and bad consequences of huge number of family members in the household, they willingly took it for keeping their families smaller. Around half of the decision makers about contraceptive use were a female alone (49%) followed by husband and wife (25%), sole husband (22%) and others (4%). The positive relationship between level of education and using contraceptive found here; the more educated respondents were the more they were likely to use contraceptives. The number of contraceptive users with primary level of education was 66 while it was 24 in the cases of illiterate mothers (Table 3). However, no difference in using contraceptives in terms of different income groups found in Table 4. The number of contraceptive user mothers with household monthly income less than Tk. 5000 was 47 whereas the figure for mothers having income between Tk. 5000 and 10000 was 42.

Table 2. Distribution of contraceptive used and decision makers of it

Attitudes to contraceptives		What types	Frequency	Types of decision makers	Frequency
Used	94	Male-oriented	06	Wife herself	46
		Female-oriented	88	Husband alone	21
				Both husband and wife	24
				Others	03
Not-used	01				
Don't know	05				

Table 3. Relationship between level of education and using contraceptives

Educational status	Used of contraceptives (%)			Total (%)
	Used	Not used	Don't know	
Illiterate	24	0	1	25
Primary	66	0	3	69
Secondary	3	1	1	5
Higher secondary	1	0	0	1
Total	94	1	5	100

Table 4. Relationship between level of income and using contraceptives

Levels of income	Used of contraceptives (%)			Total (%)
	Used	Not used	Don't know	
<5,000	47	1	2	50
5,000-10,000	42	0	3	45
10,001-15,000	5	0	0	5
Total	94	1	5	100

Slightly over half of the respondents became pregnant accidentally. This suggests that they used contraceptives irregularly or failed to follow the regular cycle of menstruation and practice of doing sexual interaction before and after menstruation. 41 percent never used anything for being pregnant whereas only 6 percent used different methods, such as amulet, holy water, other treatment. This indicates that most of the respondents perceived pregnancy a natural process which does not require any particular medical intervention. Another reason is since they got married at their earlier ages, naturally they did not face any complications for being pregnant which other women with higher education and late marriage might face and take interventions.

Perception of and awareness about the period between pregnancy and child delivery

All of the respondents but not one went for ANC services. Among the ANC users, 42 percent went from one to three times while 35 percent went from seven to nine and 19 percent from four to six times. It is important to mention here that most of the ANC users had ANC card. This

suggests that they do not have traditional perception that everything should go as it is natural; they do not feel the necessity of monitoring the progression of foetus and to give special care to a pregnant woman. The expansion of female education and building awareness about complications of pregnancy are attributed to this positive development (increasing the number of the ANC users). The positive relationship between level of education and using ANC services many times found. The number of mothers with primary level of education using ANC services seven times was 10 whereas the figure for illiterate mothers was three. Similarly 11 and five mothers of the former group used ANC services eight and nine folds while the figures for the latter group were three and one respectively (Table 5).

More education creates awareness about using appropriate services at the proper time which influences mothers' decisions for receiving ANC services several times. Nevertheless, the inverse relationship between level of income and using ANC services found which is unusual compared to other studies (NIPORT *et al.*, 2005; 2009; 2012). Table 6 shows that mothers with low monthly income (less than Tk. 5000) used ANC services

Table 5. Relationship between level of education and different times the ANC service was used

Educational qualification	Times of ANC services									Total
	1	2	3	4	5	6	7	8	9	
Illiterate	5	2	6	3	0	1	3	3	1	24
Primary	9	6	11	6	5	3	10	11	5	66
Secondary	0	0	2	0	0	1	1	0	1	5
Higher secondary	0	0	1	0	0	0	0	0	0	1
Total	14	8	20	9	5	5	14	14	7	96

Table 6. Relationship between level of income and different times the ANC service was used

Levels of income	Times of the ANC users									Total
	1	2	3	4	5	6	7	8	9	
<5,000	6	5	12	4	1	2	7	6	5	48
5,000-10,000	7	3	8	5	3	2	7	7	2	44
10,001-15,000	1	0	0	0	1	0	0	1	0	3
>15,000										
Total	14	8	20	9	5	4	14	14	7	95

more times compared to mothers having more income (between Tk. 5000 and 10000). The regular visits of the community health worker at lower level income households could be one of the main reasons for finding this unusual picture.

The percentage of community health worker providing ANC services to the respondents was 96 whereas that of doctor was 52. One of the main reasons for more availability of the community health worker in service provision is that both government and private organizations, including NGOs, have been taking steps for providing basic healthcare services by community people, particularly trained community health worker, at people's doorsteps. Most of the respondents received ANC services at their homes because of the availability of the community health workers at their communities, as described before. Other places where the respondents also received ANC services were clinic (50 respondents mentioned), health centre (38) and hospital (18). All information suggests that the ANC services are now readily available at mothers' doorsteps.

More than three quarter mothers went for tetanus toxoid, weighing their bodies and measuring blood pressure whereas three in four for ultrasound. The percentage of mothers going for blood and urine test was 66 and 72 respectively. No information about test for iron deficiency, jaundice and vaginal position was available. Around seven in ten respondents knew about five dangerous signs of pregnancy which is followed by 13

and 12 percent knowing four and six dangerous signs respectively. This indicates that mothers in the study areas are very aware of dangerous signs of pregnancy. The availability of the community health worker, easy access to different types of people like community health worker and print and electronic media are attributed to this development of knowledge of common people relating to pregnancy and its complications. The highest number of mothers (96%) received information regarding dangerous signs of pregnancy from the community health worker. Most of the mothers were informed about dangerous signs of pregnancy when they were three to five months pregnant.

Selection of birth place, mode and attendants

The number of mothers delivering babies in the institutional set-up was 61 of them 36 delivered babies at clinic whereas the rest (25) mothers delivered in hospitals. This indicates that mother's preference for delivering babies at facility centres is more than that at home. The availability of competent health personnel, huge supply of medicine and blood facilities and readily available information regarding where and when a mother should be sent from both electronic and print media influence people's decision about the selection of place for childbirth, here hospital and clinic. 87% mothers delivered babies normally. This suggests that getting admission into hospital for delivering babies does not

Table 7. Relationship between level of education and selection of birth place

Educational status	Place of last delivery (%)			
	Home	Hospital	Clinic	Total (%)
Illiterate	12	6	7	25
Primary	27	16	26	69
Secondary	0	2	3	5
Higher secondary	0	1	0	1
Total	39	25	36	100

Table 8. Relationship between level of income and selection of birth place

Level of income	Place of last delivery (%)			
	Home	Hospital	Clinic	Total (%)
<5,000	21	14	15	50
5,000-10,000	16	9	20	45
10,001-15,000	2	2	0	4
>15,000	-	-	-	-
Total	39	25	35	99

necessarily mean that babies are delivered by Caesarean process. This data does not support the conventional argument that health personnel at facility centres always prefer caesarean to normal baby delivery. However, mothers still prefer *Dai* (traditional birth attendant with or without training) or relatives as attendants during the delivery period. The number of mothers delivering babies with the assistance of *Dai* was highest (42) compared with doctors (39), relatives (36) and nurse (27) (Total number is over 100 as some respondents used assistance from more than one attendant.).

A positive relationship between level of education and selection of birth place found. The more education respondents had the more preference they gave for delivering babies in hospitals or clinics. The percentage of mothers with primary level of education choosing hospital or clinic as a birth place was 42 whereas that selecting home was 27. Conversely, the same number of illiterate mothers selected either home or facility centres as birth places (Table 7). This suggests that higher education can cause making preference for delivering baby at facility centres. No difference between two income groups in preference for institutional delivery found (Table 8). However, a slight difference between two income groups in giving preference for home delivery revealed; low income category (below Tk. 5000) gave more preference than higher income category (between

Tk. 5000 and 10000). The figure for the former and latter groups was 21 and 16 respectively (Table 8).

Similarly, a positive relation of educational level with selection of delivery mode found; the number of mothers with no education delivering babies by Caesarean section was three while the figure for mothers having primary level of education was seven though the number of mothers with primary education delivering babies normally was three times more than that of illiterate mothers. However, no difference between two income groups in selecting delivery mode found.

Moreover, a positive relationship between mother's level of education and selection of birth attendants found. Mothers with primary level of education preferred all types of attendants more compared with illiterate mothers. The figures for nurse, doctor, *dai* and relatives used as birth attendants by the former group were 17, 23, 31 and 23 while the figures for four attendants used by the latter group were 6, 11, 10 and 9 respectively (Table 9). Conversely, no difference between two income groups in selecting attendants found in Table 10.

The number of female family member making decision about delivering baby was 50 followed by both husband and wife (18) and husband alone (17). This indicates that still women, particularly female family members, play key role in making decision regarding the selection of baby delivery place, mode and attendant.

Table 9. Relationship between level of education and selection of birth attendants

Educational status	Types of attendants during the last baby delivery				Total
	Nurse	Doctor	Dai	Relatives	
Illiterate	6	11	10	9	36
Primary	17	23	31	23	94
Secondary	3	5	1	4	13
Higher-secondary	1	0	0	0	01

Table 10. Relationship between level of income and selection of birth attendants

Level of income	Types of attendants during the last baby delivery				Total
	Nurse	Doctor	Dai	Relatives	
<5,000	14	17	21	17	69
5,001-10,000	10	19	21	15	65
10,001-15,000	02	02	00	04	08
>15,000					

Perception and awareness about complications of baby delivery

36 out of 100 respondents faced complications during the baby delivery period. That means, one-third mothers faced troubles in delivering babies. Most of the mothers with complications (19 of 36) had more bleeding problem whereas delay in delivering babies and placenta occurred in six cases each. In this regard, mothers and their families preferred doctors to others for the consultation of the complication owing to the reliability of their knowledge and competence. However, three mothers having complications never consulted anybody. This means that some people still do not feel the necessity of seeking treatment of these complications; these, they believe firmly, are banished in a natural way. Doctor was the sole decision maker about whether these complications need to be treated or not.

DISCUSSION

Perception, belief and attitudes on medicalisation of pregnancy and childbirth

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 Ahmed (1981: 144) 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."

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, can deliver babies with assistance from relatives or traditional birth attendants, like *Dai*, and do not disturb 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. One study found that rural pregnant mothers did not use

professional assistance during delivery from their existing perception—‘service not needed’—unless there was any serious obstetric difficulty. It also reported that this perception sometimes works as a barrier to seeking professional help in emergency situations (Gayen and Raeside, 2007).

However, the present study found that mothers are rather influenced by bio-medical approach of pregnancy and childbirth, main focus of which is to treat pregnancy and childbirth as an illness that requires medical interventions, than by traditionally developed perception about pregnancy and childbirth that it is a natural process which does not require any medical interventions and special care. Almost all of the women (94%) used contraceptives for avoiding unwanted pregnancy. It is worthy mentioning here that the well-known types of contraceptives were female types like pill. This reflects that male domination is still prevalent in the study areas. We always argue that our society is modernized; yes it is true. But this modernisation process fails to change mindset of men, particularly men with low level of education. In some cases, men force women to take pill to maintain their domination and to enjoy sexual pleasures.

Conversely, people are used to adopting no method or measure for being pregnant. In other words, poor women generally use no medical treatment for becoming pregnant. As almost all of the women studied got married at their earlier ages, naturally they could wait longer period for being pregnant. It should be mentioned here that becoming pregnant at earlier ages is always risky which might push mothers’ lives at danger. Slightly over half of the mothers studied became pregnant accidentally. Only six out of 100 mothers used something for being pregnant.

The scenario of receiving healthcare services after being pregnant is totally different. Almost all of mothers had ANC card and received the ANC once from a provider. This data is higher than data at national level suggesting that 68 percent mothers received the ANC at least one time. Around one in four mothers of the study went four to six times for receiving ANC services which is similar to the national level data (NIPORT *et al.*, 2012). The main purposes for visiting ANC centres, the study found, were to do different tests (7 in 10), undertake ultrasound (8 in 10) get tetanus toxoid injection (9 in 10) and weigh bodies and measure blood pressure (8 in 10) each. The national data indicates that , in 2007, the highest number of mothers went for measuring blood pressure (90.9%) which is followed by weighing bodies (88.1%), taking urine sample (64%) and blood sample (52%) and ultrasound (50.8) (NIPORT *et al.*, 2009).

The availability of the community health workers at people’s doorsteps, of facilities for doing various tests, providing free services from either government or NGOs, huge supply of medicine relating to pregnancy and building awareness about bad consequences of troubles

in baby delivery through print and electronic media are attributed to the expansion of the coverage of ANC. Seven in ten mothers of the study knew about five dangerous signs of pregnancy which is quite higher than national level data. The percentage of mothers informed about complications of pregnancy was 40.6 in 2007 (NIPORT *et al.*, 2009). This knowledge helps make a right decision at the right time. Only 36 mothers of 100 faced complications during delivery period, among those, one in two had more bleeding problem.

All these information suggests that couples use contraceptive for avoiding unexpected pregnancies. However, no rigorous intervention or treatment is used for being pregnant. Once a mother becomes pregnant, she is used to receiving the ANC services at least once from a provider and gaining knowledge about dangerous signs of pregnancy and childbirth related complications from different sources. That means, medicalisation process starts from marriage for not getting pregnant unwillingly and is acute between pregnancy and childbirth periods.

Changes in selection of place, mode and attendance of child delivery

Bangladesh is emerging as a middle income country where adult literacy rate is 56% and life expectancy at birth is 67 years (WDR, 2012). Bangladesh has also made tremendous achievements in other indicators of health over the last few decades (Ahmed and Khan, 2011; Anderson, 2012). The population growth rate has come down from 3 (1975) to 1.58 (2012) percent, the fertility rate has declined from 6 to 2.55, the contraceptive prevalence rate rose to 56 from 7.7 percent in 1975, the infant mortality rate has slowed down from 100 to 48 per 1000, and maternal mortality rate has reduced from 5.7 (2007) to 2.4 (2012) .

The Bangladesh government has been formulating various development projects and programs, the benefits of which we can see few years after these projects or programs were implemented. Many private organizations, particularly NGOs and donor agencies, have also been formulating and implementing projects at grass roots level. Both government and non-governmental interventions have caused in reducing the gap between rural and urban as well as between poor and rich in terms of accessibility to maternal healthcare services. There has been an increase in the availability of and accessibility to information owing to huge expansion of print and electronic media, including satellite television and mobiles, which influences people’s mindset about various matters, here pregnancy and childbirth. So that mothers and their families try to make appropriate decision about the selection of proper place, mode and attendant during baby delivery period.

In this regard, mothers prefer to deliver babies in such a place where medical and other facilities as well as skilled birth attendants are readily available. Six in ten

mothers of the study sample delivered babies in facility centres. There has also been an increase in the number of babies delivered in facility centres in urban areas at national level. The figure for 2011 is around 50 percent whereas it was 30.7 percent in 2007 and 22 percent in 2004 (NIPORT *et al.*, 2005; 2009; 2012). Four in ten cases of the study were attended by either doctors or dais or both whereas three in ten by nurses which is similar with national data. The percentage of births attended by a qualified doctor is 38.4 at present (NIPORT *et al.*, 2012). The current study nullifies the idea generated that once a mother is admitted in facility centres, either she has serious problems of delivering babies or baby is delivered by Caesarean section. Babies were delivered normally in around nine in ten cases be it at home or in facility centre.

Only 21 percent mothers of the study admitting into facility centres delivered babies through Caesarean section which is slightly lower than national data. The percentage of mothers delivering babies through Caesarean section is 28.9 in 2011 (NIPORT *et al.*, 2012). One of the main reasons is that most of the mothers studied are poor, resultantly unable to bear the expenses relating to Caesarean delivery that influences doctor's preference for normal to Caesarean delivery. The huge expansion of NGO pro-poor services is another reason for reducing caesarean section delivery rate. As NGOs bear major part of expenditure relating to baby delivery and delivering babies through caesarean section is expensive, doctors of NGOs may be instructed not to do caesarean section delivery unnecessarily.

In sum, there has been an increase in the preference for institutional delivery with the assistance of a skilled birth attendant. Huge expansion of female education, changing mind-set of the people, particularly household head (husband or father/in-law) through information flow by electronic and print media, the availability of medical facilities and providers—medicalisation process—at people's doorsteps can be attributed to this change.

CONCLUSION

Though Bangladesh is a traditional society, some traditional rituals and practices relating to pregnancy and childbirth are not followed as a religious doctrine. Raising awareness about bad consequences of these rituals and practices is one of the main reasons for this situation. This change has introduced medical model (Females become passive agents and males become dominant due to their expertise in handling complicated cases) in place of social model of childbirth (Woman is an active agent and females deliver babies by themselves with the assistance of other women). Mothers here used medical interventions for avoiding unwanted pregnancy and for avoiding complications between pregnancy and child delivery. This suggests that mothers are willingly or

unwillingly entering into the MoP&C process and follow the bio-medical pathway to avoid all kinds of pregnancy-related complications. The question may ask whether this bio-medical approach is sufficient enough to reduce the prevailing high MMR in Bangladesh. Answering to this question is really difficult. However, it appears, unless social problems are properly addressed, high MMR cannot be reduced as expected. For instance, like other Bangladeshi areas, girls' marriage at earlier age is prevalent here. Raising awareness among poor households about bad consequences of early marriage on women health through different social channels is one of the most effective ways of preventing child marriage. Giving due attention to direct and indirect causes of high MMR and adopting a bio-social approach rather a bio-medical approach are therefore the right paths to achieve the 5th MDG at the right time (2015). Lastly, the study found positive results of two propositions formulated earlier; socio-economic condition in Bangladesh is apparently conducive to the introduction and implementation of medical interventions and all these interventions help reduce the gap between urban poor and non-poor in the availability of and accessibility to maternal healthcare services.

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