Original Article

Socio Demographic Determinants of Delivery Practice in Rural Women of Bangladesh

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Abstract

Background: *Every year, world wide, 200 million women become pregnant. The development of urban areas allowed women to receive more care and treatment. However, in rural areas such measures are not available to every woman. Data on delivery practice of rural woman may help the social and public health planners and decision makers to minimize and prevent maternal mortality and morbidity ensuring safe motherhood.* ***Objective:*** *The aim of the study was to observe the delivery practice of rural women of Bangladesh.* ***Materials and method:*** *A cross-sectional study was conducted and data were collected from Dhamrai upazila, Dhaka, Bangladesh in April 2008. Total 159 women of reproductive age group at least having one child were selected purposively to elicit information on various demographic, socioeconomic, cultural and selected programmatic variables including maternal health care and delivery practices.* ***Results:*** *Among the respondents about 55% were literate. Majority (80%) of the respondents delivered at home and most of the them (71%) felt that home delivery was comfortable where as about 29% of the respondents were compelled to deliver at home due to family decision and financial constraint. Among the deliveries about 82% occurred normally and 18.2% were by cesarean section. A considerable percentage of deliveries (49%) were attended by traditional birth attendants. Blade was used for cutting umbilical cord in majority of the cases (74%) who delivered at home. Most of the respondents (90%) took ante natal check up and about 74% were vaccinated by tetanus toxoid.* ***Conclusion:*** *The results of the study suggest that a lot of work is still to do for the policy makers and health planners to target, plan, develop and deliver maternal health services to the rural women of Bangladesh.*

Keywords: *Socio-demography; delivery practice; rural.*

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Introduction

Although most pregnancies end with the birth of a live baby, on many occasions, childbirth is a time of pain, fear, suffering, and even death. Pregnancy and childbirth related complications are among the leading causes of maternal mortality in Bangladesh.[1]

The health and family planning program of Bangladesh has made remarkable progress in the last two decades as evident from the decline in fertility rate, infant and child mortality rates. However, the maternal mortality ratio (MMR) is still high (1.94 per 1000 live births).[2]

In any community, mothers and children constitute a priority group. In developing countries they comprise approximately 70% of population. Mothers and children not only constitute a large group, but they are also a vulnerable or special risk group.[3] Maternal mortality is one of the most important health challenges the world is facing today. More than 20 million women experience ill health as a result of pregnancy each year. The risk of a woman dying as a result of complication related to pregnancy in developing countries can be as much as 100 times that of women in Western Europe or North America.[4]

Though the safe mother hood initiative has been priority in recent years, maternal morbidity and mortality still remain a major public health issue in most developing countries. Child birth is a time of transition and social celebration in many societies. Women's progression from birth to child bearing is influenced by economy, religion, kinship system and the complexity of communications and medical technology.[5] In some societies, there is a continuum between traditional and modern care, with some households operating at the traditional end, others at the modern end, with the majority somewhere in between.[6] Women are most in need of skilled care during delivery and immediate post partum period, when roughly seventy five percent of all maternal death occurs. Traditional birth attendants, whether trained or untrained can neither predict nor cope with serious complications. Public hospital, private hospital and maternity clinic provide modern delivery care.[7] Research consistently shows that high cost is an important constraint to service utilization particularly for the poor.[8]

Materials and method

This cross sectional study was conducted in April, 2008 to get information on various demographic, socioeconomic variables, including delivery practices among 159 married rural women of reproductive age group at least having one child, who were selected purposively residing in Dhamrai upazila in Dhaka district. A pre designed questionnaire containing the combination of closed ended and open ended questions was applied to get data. Data was collected by face to face interview by going door to door in the village. Data processing and analyses were done using SPSS (Statistical Package for Social Sciences) version 17. The results were expressed as proportions. Verbal consent was taken from all the study subjects.

Results

Out of 159 respondents, 71(44.6%) were between 21-25 years of age, 87(54.7%) were literate and 90(56.6%) were housewife. Regarding their husbands' occupation, majority (40.3%) were service holder followed by 26.4% being garments worker. Highest percentage of the respondents' (46.5%) monthly family income was up to Tk. 10,000 and 64% of the respondents lived in nuclear family. Regarding age of the marriage of the respondents, 42.1% was up to 21-25 years which is same with their age of first pregnancy.

Table I: Distribution of respondents by their socio demographic characteristics (N=159)

Variables		Variables	Proportion (%)
Age			
	Up to 20 yrs	11	6.9
	21-25 yrs	71	44.6
	26-30 yrs	54	34.0
	> 30 yrs	23	14.5
Educational Status			
	Illiterate	72	45.3
	Primary level	57	35.9
	Secondary level	19	11.9
	Higher secondary and above	11	6.9
Occupation			
	Housewife	90	56.6
	Day laborer	05	3.1
	Service holder	43	27.0
	Garments worker	21	13.2
	Unemployed	05	03.1
Husband's occupational status			
	Day laborer	06	03.8
	Rickshaw puller	09	05.7
	Garments worker	42	26.4
	Business man	33	20.8
	Service	64	40.3
Monthly family income			
	Upto Tk. 10000	74	46.5
	Tk. 10001 – 20000	63	39.6
	Tk. > 20000	22	13.9

Family living status			
	Joint family	57	36.0
	Nuclear family	102	64.0
Age of the marriage			
	Up to 20 years	58	36.5
	21-25 years	67	42.1
	>25 years	34	21.4
Age at first pregnancy			
	< 20 years	26	16.4
	21-25 years	67	42.1
	26-30 years	55	34.6
	> 30 years	11	6.9

Among the respondents 89.9% took ante natal care. Place of delivery of the majority (80.5%) of respondents were home and in most cases (40.3%) decision were taken either by husband or mother in law. About 82% women had normal vaginal delivery. Vaccination with tetanus toxoid was done in 73.6% respondents. Traditional birth attendants conducted most of the deliveries (49.2%) and 71.2% respondents delivered at home as they felt it comfortable. Majority of the respondents (74.2%) used blade for cutting the umbilical cord.

Table II: Distribution of respondents by their delivery pattern (N=159)

Variables		Variables	Proportion (%)
Antenatal care			
	Yes	143	89.9
	No	16	10.1
Place of delivery			
	Institutional	31	19.5
	Home	128	80.5
Decision maker in family	Husband	64	40.3
	Both	31	19.5
	Mother-in-Law	64	40.3
Nature of delivery			
	Normal vaginal	130	81.8
	Caesarean section	29	18.2
Tetanus toxoid received			73.6
	Yes	117	26.4
	No	42	
Conduction of delivery	Trained birth attendant	37	28.9
	Traditional birth attendant	63	49.2
	Relatives	28	21.9
Reason for delivery			
	Comfortable	91	71.2
	Family decision	13	10.1
	Financial problem	06	4.7
	Hospital is far	13	10.1
	Other	05	3.9
Instruments forcutting the umbilical cord			
	Blade	95	74.2
	Scissor	20	15.6
	Other	13	10.2

Discussion

A cross sectional study was carried out among 159 married rural women at least having one child. The aim of the study was to address the socio-demographic variables related to delivery practice among the Bangladeshi rural women. The study revealed that literacy rate of the respondents was about 55% of whom 57(35.9%) had primary level of education. This is little bit higher than that of previous national literacy rate of female which was 48.8%.[9]

Among the respondents, 143(89.9%) took ANC in last pregnancy which was much higher than that of previous study done by Bangladesh Demographic and Health survey where ANC coverage was 15.4%.[10] This difference may be due to that this study was conducted in a selected rural area and the location is close to the capital city.

Regarding the place of delivery it was evident that the practice of home deliveries was higher than that of hospital deliveries (80.5% vs. 19.5%). In a similar study conducted among the urban women of Nepal showed that planned home deliveries were 58.3%, which was much less than present study.[11] Majority of the respondents (71.1%) felt that home delivery was comfortable and 28.9% were compelled to deliver at home due to family decision, financial constraint and other causes. In a similar study conducted among the urban women of Nepal shows that 25.7% home delivery was conducted due to comfort and 21.4% due to convenience and 18% due to lack of transport .[11]

The result of the study showed that a considerable percentage of deliveries (49.2%) were attended by traditional birth attendants. Trained birth attendnt was involved only in 28.9% cases which is almost same (30.1%) as revealed by another study conducted in a union of Mirsarai, Chittagong.[12]

Among the deliveries 130(81.8%) occurred normally and only 29(18.2%) were assisted and the results are also similar to that of the study conducted in Mirsarai.[12]

In home delivery umbilical cords were cut in majority of cases (74.2%) by blade and 15.6% by scissors. In a similar study in Nepal only 16.2% women used a clean home delivery kit. It may be due to increased awareness about ensuring safe mother hood by using clean home delivery kit by trained birth attendant.[13]

Prominent role in decision making was of husband in 40.3% and of mother-in-law in another 40.3%. Similarly, in another study, husband's advice was the dominant feature for home or institutional delivery of 48.8% respondents.[14]

During ante natal period, 73.6% of the respondents took tetanus toxoid vaccine which supports the BBS report on tetanus toxoid vaccination coverage of 67.7% in Bangladesh.[15]

Various studies had been undertaken on pregnant women in the world and Bangladesh, but the information on delivery practice among the rural women at the community level is still inadequate. In our study, we were interested to examine the current behavior of rural women regarding delivery and child birth from the perspective of the women themselves and their families. It can be recommended that, more emphasis should be given at MCH based health care at the grass root level to facilitate safe and comfortable delivery practice, trained traditional birth attendants should be developed to prevent pregnancy complications and female education about pregnancy, safe delivery, place of delivery, vaccination should be promoted.

References

1. National Institute of population Research and Training. Bangladesh demographic and health survey 2011. Dhaka: National Institute of population Research and training, 2011.
2. NIPORT, ORC Macro, JHU and ICDDR,B: Bangladesh Maternal Health Services and Maternal Mortality Survey 2001.
3. Park k. Park's textbook of preventive and social medicine. 19th ed. India: Bhanot Publishers; 2007.p.143.
4. Estimation of Maternal mortality in 2000 – annual report, Geneva WHO, 2003.
5. Lauderdale J. Childbearing and transcultural nursing care issues. In: Andrews M, Boyle J, editors. Transcultural concepts in nursing care. 3rd ed. Philadelphia: Lippincott; 1999.p.81-106.
6. Pillsburry B, Brownlee A, Timyan J. Understanding and evaluating traditional practices: a guide for improving maternal care. Washington: International center for Research on women. 1990.
7. Hossain L, Hoque MM. Determinants of choices of delivery care in urban slums of Dhaka city. Pakistan journal of social science. 2005;3(3):469-75.
8. Celik Y, Hotchkiss D. The socio-economic determinants of maternal health care utilization in turkey. Soc Sci Med. 2000;50(12):1797- 806.
9. Sample vital registration system (SVRS) 2007, Statistical pocket book of Bangladesh 2010; p.370.
10. Health and demographic survey 2000, Statistical pocket book of Bangladesh 2010; p.386.
11. Chandrashekhar T, Hari SJ, Binu VS, Sabitri G. Home delivery and new born care practices among urban women in western Nepal: a questionnaire Survey. BMC pregnancy childbirth. 2006; 6:27.
12. Parveen AK, Quaiyum MA, Islam A, Ahmed S. Complications of pregnancy and childbirth: Knowledge and practices of women in Rural Bangladesh [WP131, 2000]. ICDDR,B: Centre for Health and Population Research. 2000; WP131:1-22.
13. Bolam A, Manandhar DS, Shrestha P, Ellis M, Malla K, Costello AM. Factors affecting home delivery in the Kathmandu valley, Nepal. Health policy plan. 1998;13:152-58.
14. Beun MH, Wood SK. Acceptability and use of clean home delivery kits in Nepal: a quantitative study. J Health Popul Nutri. 2003;21:367-73.
15. Health and demographic survey 2000, Statistical pocket book of Bangladesh 2010; p.385.