Ante-natal Care Practices in Some Selected Rural Areas of Bangladesh

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ABSTRACT

Background & Methodology: This descriptive cross sectional study was conducted to assess the antenatal care practices in some selected rural areas of Bangladesh for a period of six months starting from July to December 2014. The study populations were all married women of reproductive age, who had at least one child and had delivered the last child within two years from the period of data collection. A total of 353 women were selected by convenient type of non probability sampling. A semi-structured pre-tested questionnaire was used which include socio-demographic profile and practice regarding antenatal care.

Results: Out of 353 respondents, more than fifty percent of the respondents 271(76.8%) received ante-natal services and of them 157(57.9%) received more than three ante natal care. Only 82(23.2%) respondents did not receive ante natal services. The major reasons for not attending ante natal check up were due to healthy and thought of as not necessary 60 (73.2%), pregnancy is an ordinary issue 20 (24.4%), inability to afford cost 14(17.1%) and feel embarrassed and far distance 24 (24.2%). A significant association was found between education of the respondents and ante-natal service received (P=0.00) and between occupation of the husband and ante-natal service received by the respondents (P = 0.01) and between knowledge on ante-natal services (p=0.00).

Conclusion: The monthly family income, age of the respondents and number of living children did not show any significant association on bi-variate analysis. So, the findings of the study suggested that education of the mothers is an important determinant of ante-natal visits during pregnancy. Therefore, information, education and communication on ante-natal services must be intensified in order to reach the rural mothers.

Key Words: Ante natal care, ante natal visit, rural area, Bangladesh.

Introduction

Antenatal care (ANC) is the care a woman receives throughout her pregnancy in order to ensure that both the mother and child remain healthy. Almost 90% of maternal deaths occur in developing countries and over half a million women die each year due to pregnancy and childbirth related causes[1]. The risk of maternal mortality and morbidity as well as neonatal deaths can be reduced substantially through regular and proper antenatal care check-up and delivery under safe and hygienic conditions. Studies demonstrating the high levels of maternal mortality in developing countries and research identifying causes of maternal death have repeatedly emphasized the need for prenatal care and availability of trained personnel to attend to women during labor and delivery[2]. In developing countries, women often encounter serious health risks during pregnancy either for themselves (e.g. anemia, edema, eclampsia etc) or for their children (e.g. sepsis and pneumonia, birth asphyxia and injuries, tetanus, congenital anomalies, with low birth weight etc). Maternal health refers to the health of the mother during pregnancy, childbirth, and the postpartum period[3]. Maternal health services usually are preventive and patients are not usually ill, 4 resulting in the underuse of services. The use of maternal healthcare services is

important for the early detection of mothers who are at a high risk of morbidity and mortality during pregnancy[3]. In developing countries, these problems are even more prevalent due to the current socioeconomic conditions and inaccessibility to health facilities[5]. The wide disparity in the maternal healthcare indicators might explain the wide difference in the maternal mortality ratio (MMR) between the developed and the developing countries. Of the 210 million women who become pregnant each year, 30 million, or about 15%, develop complications, which are fatal in 1.7% of cases[6]. Available information suggests that about 12,000 women in Bangladesh die due to pregnancy-related complications[7]. These complications can be managed and treated if timely and appropriate care is sought from facilities with necessary skilled care providers[8,9]. Proper ANC is one of the important ways in reducing maternal and child morbidity and mortality. Unfortunately, many women in developing countries do not receive such care[3]. According to the WHO recommendation, every pregnant woman should receive at least four ANC visits during pregnancy[10]. The use of ANC in developing countries is low compared to developed countries (97%)[4]. The Bangladesh Demographic and Health Survey (BDHS) 2011 showed that 55% of women with a birth in the three years preceding the survey received ANC at least once from any provider[5]. More than half (55%) of the women received care from a medically-trained provider, such as doctor, nurse, midwife, family welfare visitor, community skilled birth attendant, medical assistant or sub-assistant community medical officer[5]. In rural Bangladesh, the majority (81.6%) of the women had only one ANC visit, while 14.6%, 3% and 0.8% had two, three and more than three visits respectively[7].

Bangladesh has made a significant improvement towards achieving the Millennium Development Goal (MDG) target the 5 of 75% reduction in the MMR between 1990 and 2015[8]. The present study highlights the practices of antenatal care among the women of Dhamrai upazilla, Saver, Dhaka and identifies some demographic and socioeconomic factors that affect the status of antenatal visit.

Methodology

This descriptive cross sectional study was conducted to assess the antenatal care practices in some selected rural areas of Bangladesh for a period of six months starting from July to December 2014. The study population were all married women of reproductive age, who had at least one child and had delivered the last child within two years from the period of data collection. A total of 353 women were selected by convenient type of non probability sampling. House to house visit was done for data collection in Choto-Chondrial, Boro-Chondrial and Kalampur villages of Dhamrai upazilla, Savar, Dhaka. Unmarried women and those women who refused to participate were excluded from the study. A semi-structured pre-tested questionnaire was used which include socio-demographic profile and practice regarding antenatal care. Informed verbal consent was taken from each respondent. Face to face interview was taken to collect data. Only the fully completed questionnaire was entered into the computer for final analysis. Data entry and analysis were done by using SPSS-version 17. Descriptive statistics like mean and percentage were used. Chi square test was used for comparison between the groups. A p-value of <0.05 was taken as statistically significant.

Result

Out of 353 respondents, majority 207(58.6%) of the respondents were within the age group of 18-25 years. Minimum age of the respondents was 17 years and maximum age was 40 years. (Mean $\pm$ SD$=24.43\pm4.1$). Most 296 (83.9%) of the respondents were literate and Only 57(16%) respondents were illiterate. On the other hand according to the educational status of the respondent's husband, most 294 (82.9%) of them were literate and only 59 (16.7%) were Illiterate. Most 306(86.7%) of the respondents were housewives. According to the occupation of husband, 79 (22.4%) were agriculture workers, 81(22.9%) were day laborers, 131(37.1%) were service holder and rest 62(17.6%) were involved in other profession. The mean family income was taka 14229.58$\pm$13448. (Table: 01) More than fifty percent of the respondents 271(76.8%) received ante natal services and only 82(23.2%) respondents did not receive ante natal services. The major reasons for not attending ante natal check up were due to healthy and thought of as not necessary 60 (73.2%), pregnancy is an ordinary issue 20 (24.4%), inability to afford cost 14(17.1%) and feel embarrassed and far distance 24 (24.2%). (Table: 02). More than fifty percent 157(57.9%) respondents received more than three ante natal visit and 114(42.1%) respondents received up-to three visits. Majority of the 226 (38.6%) respondents received antenatal services at 3rd trimester, 214 (36.5%) received antenatal services at 2nd trimester and 146 (24.9%) respondents received antenatal services at 1st trimester (Table: 03). Mass media

was cited as the main source of information 172 (19.3%) (Table: 04). Out of 271 respondents, 111(31.4%) received ANC services from upazilla health complex followed by 69 (19.5%), 46 (13%), 33 (9.3%) and 12 (3.4%) received ANC services from private clinic, provincial hospital, health centre and NGO clinic respectively. (Figure: 01) Significant association has been observed between education of the respondents and ANC service received (P=0.00) and between occupation of the husband and ANC service received by the respondents (P = 0.01). The monthly family income, age of the respondents and number of living child did not show any significant association on bi-variate analysis except knowledge on ANC service (P=0.00) (Table: 05)

Table 1: Scio-demographic characteristics of the respondents (n=353)

Age	Frequency	Percent
<18 years	247	70.0
18 -25 years	104	29.5
> 25 years	2	.6
Total	353	100.0
Mean ±SD=24.43±4.1, Min-17years, Max-40years		

Education	Respondent Frequency (%)	Husband Frequency (%)
	57(16.1)	59(16.7)
Primary level	169(47.9)	106(30.0)
Secondary level	107(30.3)	146(41.4)
Higher secondary and above	20(5.7)	42(11.9)
Total	353(100.0)	353(100.0)

Occupation	Respondent Frequency (%)	Husband Frequency (%)
Housewife	306(86.7)	0(0)
Agriculture worker	5(1.4)	79(22.4)
Day laborer	10(2.8)	81(22.9)
Service holder	31(8.8)	131(37.1)
Other	1(0.3)	62(17.6)

Income in group	Frequency	Percent
<5000 Tk	17	4.8
5000 - 15000 Tk	235	66.6
15000 - 25000 Tk	73	20.7
> 25000	28	7.9
Total	353	100.0

Out of 353 respondents, majority 207(58.6%) of the respondents were within the age group of 18-25 years. Minimum age of the respondents was 17 years and maximum age was 40 years. (Mean ± SD=24.43±4.1) Regarding Educational level, majority 169(48.0%) of the respondents were educated up-to primary level and 107(30.3%) were educated up-to secondary level. Only 57(16%) respondents were illiterate. On the other hand according to the educational status of the respondent's husband, 106(30.0%) were educated up to Primary, 146 (41.4%) were educated up to secondary level and only 59(16.7%) were Illiterate. Most 306 (86.7%) of the respondents were housewives. According to the

occupation of their husbands 79(22.4%) were agriculture workers, 81(22.9%) were day labourers, 131(37.1%) were service holder and rest 62(17.6%) were involved in other profession. Majority 210 (59.5%) respondents had monthly family income between taka 5000 to taka 15000 per month. The mean income of the respondents was taka 14229.58±13448. (Table: 01)

Table 2: Ante-natal care practices (n=353)

Variable	Frequency	Percent (%)
Received ANC service		
	82	23.2
No	271	76.8
Reasons for not received ANC service		
Yes		
Too busy	10	12.2%
Healthy, unnecessary	60	73.2%
Feel embarrassed	12	14.6%
r distance from ANC service	12	14.6%
Pregnancy is ordinary issue	20	24.4%
Fa		
Inability to afford cost	14	17.1%
Others	4	4.9%

More than fifty percent of the respondents 271(76.8%) received ANC services and only 82(23.2%) respondents did not receive ante natal services. The reasons for not received ANC services due to respondents were healthy and not necessary 60 (73.2%), pregnancy is ordinary issue 20 (24.4%), poor (lack of money) 14(17.1%) and feel embarrassed and far distance 24(24.2%). (Table: 02)

Table 3: Distribution of the respondents according to number of ante-natal visit and time

Number of ante -natal visit		
Up to three times	114	42.1
More than three times	157	57.9
Mean ± SD= 1.21±0 .796		
Completed months during ante natal visit according to trimester		
1st trimester	146	24.9%
2nd trimester	214	36.5%
3rd trimester	226	38.6%

More than half 157(57.9%) of the respondents received more than three visit and 114(42.1%) respondents received antenatal services up-to three visit. Majority of the 226(38.6%) respondents received antenatal services at 3rd trimester, 214(36.5%) received antenatal services at 2nd trimester and 146(24.9%) respondents received antenatal services at 1st trimester. (Table: 03).

Table 4: Distribution of the respondents by Source of information   (n=353)

Source of information	Responses Frequency**	Percent
VHVs/TBAs	119	13.4%
Health personnel	126	14.2%
Friends	104	11.7%
Community Leader	46	5.2%
Mass media (radio, TV, poster, brochure)	172	19.3%
Mothe r	168	18.9%
Husband	155	17.4%

**Multiple responses

Mass media (television, poster, brochure or radio) was cited as the main source of information 172 (19.3%). Among rest, 168(18.9%) respondents gathered information from their mother, 155(17.4%) gathered information from their husband, 119(17.4%) from VHVs/TBAs, 126(14.2%) from health personnel, 104(11.7%) from their friends and 46(5.2%) respondents gathered information from community leader respectively. (Table: 04)

Table 5: Bi-variate table

	ANC		Total	P value
Education	No	yes		
Illiterate/no schooling	40(70.2%)	17(29.8%)	57(100.0%)	0.00
Primary level	32(18.9%)	137(81.1%)	169(100.0%)	
Secondary level	9(8.4%)	98(91.6%)	107(100.0%)	
Higher secondary and above	1(5.0%)	19(95.0%)	20(100.0%)	
Total	82(23.2%)	271(76.8%)	353(100.0%)	
Occupation of the husband	ANC		Total	
	No	yes		
Agriculture worker	31(39.2%)	48(60.8%)	79(100.0%)	0.01
Day laborer	19(23.5%)	62(76.5%)	81(100.0%)	
Service holder	21(16.0%)	110(84.0%)	131(100.0%)	
Other	11(17.7%)	51(82.3%)	62(100.0%)	
Total	82(23.2%)	271(76.8%)	353(100.0%)	
	ANC		Total	
Knowledge on ANC	No	yes		
Yes	18(6.4%)	262(93.6%)	280(100.0%)	
No	64(87.7%)	9(12.3%)	73(100.0%	**0.00**
Total	82(23.2%)	271(76.8%)	353(100.0%)	

Significant association has been observed between education of the respondents and ANC service received (P=0.00) and between occupation of the husband and ANC service received by the respondents (P = 0.01) and between knowledge on ANC service (P=0.00) (Table: 05)
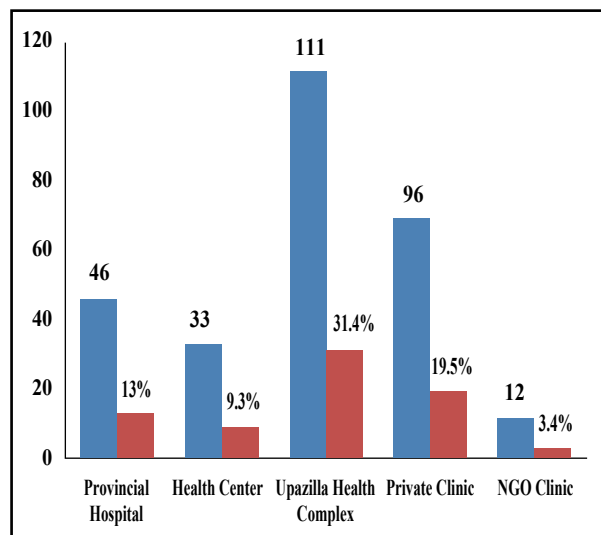

Figure 1: Distribution of the respondents by place from where ANC service received (n=271)

Out of 271 respondents, 111(31.4%) received ANC services from upazilla health complex followed by 69(19.5%), 46(13%), 33(9.3%) and 12(3.4%) received ANC services from private clinic, provincial hospital, health centre and NGO clinic respectively. (Figure: 01)

Discussion

The study was aimed to assess the antenatal care practices in some selected rural areas of Bangladesh. In the study, the mean ages of the respondents were 24.43 (SD ±4.1) years. The age distributions of the respondents in the study were consistent with the other studies[7,8,9]. Most 296 (83.9%) of the respondents were literate and only 57(16.1%) were illiterate. As SVRS 2011, 58.8% populations were literate and 42.2% were illiterate which was quite similar with the study[11]. Majority 306(86.7%) of the respondents were housewives and only 11.7% respondents were employed which was not similar with Bangladesh Economy 2015. It is due to gender inequality of Bangladesh in case of occupation. According to the occupation of the husbands, most of them were involved in some income generation which is similar with the Bangladesh Economy 2015[12]. In the study, the average monthly family income was Taka 14229.58 (SD±13448)

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which is almost consistent with Bangladesh Household Income and Expenditure Survey, 2010 (average monthly urban household income is BDT=16,477)[13].

In the study, more than fifty percent 271(76.8%) respondents received ante-natal services and only 82(23.2%) respondents did not receive ante natal services. This finding was consistent with the findings of several studies done in Bangladesh[14,15] Less than one third 82(21.7%) of the respondents did not received ante natal services because 60(73.2%) respondents thought to be healthy and not necessary to receive ante-natal services, 20(24.4%) respondents thought that pregnancy is an ordinary issue. Only 14 (17.1%), 24(24.2%) respondents did not receive ante-natal services due to poverty (lack of money) and feel embarrassed and far distance respectively. A study done in Southern Ethiopia[16] and the Kham District, Laos3 had reported the similar findings. More than half 157(57.9%) of the respondents received more than three ante natal services and 114 (42.1%) respondents received only three ante natal services. Similar findings were found in the study conducted in Bangladesh[14] and in India[17]. The study done in three rural districts of Bangladesh showed that 25% respondents who received antenatal check-up had their first visit in the first trimester of pregnancy, 48% in the second trimester, and 27% waited until the last trimester of pregnancy[18]. But in our study, majority of the 226 (38.6%) respondents received antenatal services at 3rd trimester, 214 (36.5%) received antenatal services at 2nd trimester and 146(24.9%) respondents received at 1st trimester. This is because of they thought the pregnancy complications occur mainly in the 3rd trimester of pregnancy. More than fifty percent 144(53%) respondents received ANC services from upazilla health complex/government hospital and 127(47%) respondents received ANC services from non government organization(private clinic, provincial hospital, health centre and NGO clinic). This finding was consistent with the study finding conducted in Tangail district of Bangladesh[14] and study conducted in Nigeria[19]. The study done in rural area of Punjab noted that 625 (66.1%) of the respondents reported of home delivery and 320 (33.9%) reported of institutional delivery[20] . This statistics was not similar with our study findings that is more than fifty percent 197(55.8%) respondents delivered at hospital and 153(43.3%), respondents delivered at home. This is because Damrai Upazilla is a semi urban area and very close central level of health care services which is situated in Dhaka city. So, every health care facility is available here. Another study conducted in a Nigerian village showed the similar result[21].

Conclusion

The findings of the study suggested that education of the mothers is an important determinant of ANC visits during pregnancy. Therefore, information, education and communication on ANC must be intensified in order to reach the rural mothers.

Recommendation

Increased use of ANC can prevent perinatal mortality and thereby can play a significant role in achieving the Millennium Development Goal 4 in countries where under-five mortality has already reduced substantially.

Conflict of interest: no.

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