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Original Article

Knowledge and Practice on Antenatal Care among Rural Mothers

Tasmeeha Ahmed Chowdhury[1], Muiz Uddin Ahmed Choudhury[2], Sadia Rahman Chowdhury[3], Sumaya Maria[4], Md Arifur Rahman[5]

[1,3]Assistant Professor, Department of Community Medicine, Jalalabad Ragib-Rabeya Medical College, Sylhet.

[2]Associate Professor, Department of Community Medicine, Jalalabad Ragib-Rabeya Medical College, Sylhet.

[4,5]Lecturer, Department of Community Medicine, Jalalabad Ragib-Rabeya Medical College, Sylhet.

ABSTRACT

Antenatal care (ANC) includes care during pregnancy, and it should begin in the early stages of pregnancy. It allows management of pregnancy, detection and treatment of complications, and promotion of better maternal and child health. This cross-sectional study was conducted in the village of Phulbari, Golapganj, Sylhet, Bangladesh from January to December 2018 with the aim of assessing the level of knowledge and practice of antenatal care among 384 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. Purposive sampling was used for data collection, and data were collected via face-to-face interviews with a semi-structured, pretested questionnaire and analyzed using the Statistical Package for Social Science (SPSS) version 17. The mean age of women was 26.44±5.42 years and the average monthly income was 8915.89±5078.85 Tk. The reproductive history of the women revealed that the mean age at marriage, first child birth, and parity were 19.21±2.41 years, 20.40±2.58 years, and 2.23±1.17, respectively. Among the mothers, 38% knew about the recommended four antenatal visits, while 19% had no knowledge about antenatal visits. More than half of the mothers (59%) didn't know that they had to go for an antenatal visit in the first trimester. Regarding antenatal care, among 384 respondents, 301 (78.4%) had a good knowledge score, while 83 (21.6%) had a poor knowledge score, and 272 (70.9%) had a good practice score, while 112 (29.1%) had a poor practice score. Of the 384 responders, 147 (38.3%) gave birth in medical facilities and 237 (61.7%) did so at home. In hospital deliveries, 140 (95.3%) of the mother received ANC, compared to 176 (74.3%) in home deliveries. The difference was statistically significant (p=0.004). A total of 82.3% of rural mothers received antenatal care during their last pregnancy. Women in rural settings are vulnerable due to poor antenatal health care and are exposed to the risk of pregnancy and childbirth. Appropriate health education activities, continuous database upgrade of pregnant mothers, and improved domiciliary services may increase the level of knowledge and practice of antenatal care among rural women, which may improve maternal health and decrease maternal and infant morbidity and mortality.

Keywords: *Knowledge, Practice, Antenatal care.*

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INTRODUCTION

Antenatal care (ANC) includes clinical assessment and interventions (if needed) of the expectant mother during the period of pregnancy, which are used to achieve the optimum result for the mother and foetus. It is a key entry point for pregnant women to receive multiple ranges of health services such as nutritional maintenance, prevention or treatment of anaemia, prevention, detection, and treatment of malaria, tuberculosis, and sexually transmitted infections[1].

Address of Correspondence: *Dr. Tasmeeha Ahmed Chowdhury, Assistant Professor, Department of Community Medicine, Jalalabad Ragib-Rabeya Medical College, Sylhet. Mobile: 01732337709; Email: tasmeeha_18@yahoo.com.*

Despite having made noticeable gains in maternal and neonatal mortality reduction over the last decades, Bangladesh still suffers from high rates of these deaths. Additionally, the most recent Bangladesh Maternal Mortality Survey (BMMS-2016) reports that advancements in the reduction of maternal mortality have slowed down. The utilization of key maternal and newborn health care (MNH) services still remains alarmingly low. In fact, from a statistical standpoint, only 37% of the pregnant women seem to attend 4 or more ANC contacts, 47% of the births take place in health facilities, and 48% get any sort of postnatal care from skilled professionals in healthcare within the first two days of delivery[2].

A number of factors have been found to be associated with the utilization of antenatal care, which is directly related to social, cultural, and economic factors. Socioeconomic aspects aside, women's education, birth order, and living standard index have also played roles in affecting their decisions to choose healthcare facilities[3]. Regular attendance at ANC is fundamental for maternal mortality reduction, yet millions of women in third world countries do not receive it[4]. Globally, around 10% of pregnant women will potentially develop complications that will demand highly skilled obstetric care to prevent death or life-threatening problems. Every day, about 14,000 women lose their lives as a result of complications from pregnancy and childbirth[5].

Understanding maternal knowledge and the practices of the community regarding care during pregnancy and delivery is required for programme implementation[6]. Knowledge can be defined as a woman's understanding of antenatal care components, including pregnancy registration, alarming signs during pregnancy, prophylactic iron and folic acid tablet intake while pregnant, and employing family planning methods. Practices refer to observable actions of pregnant women that play a role in her deciding to go to a hospital for an antenatal check-up after being aware of the danger signs during pregnancy, how she makes the arrangements to visit the hospital and how she adapts the family planning strategies after marriage, in her previous and current pregnancies[5].

Data related to this major issue is scarce in Sylhet. This study was conducted to determine the level of knowledge and practice related to prenatal care among the mothers and to assess the awareness of their own health during pregnancy. This may be useful for further planning of health intervention programmes.

MATERIALS AND METHODS

This descriptive cross-sectional study was conducted to assess the knowledge and practices of antenatal care among rural mothers for a period of 12 months starting from January to December 2018 in a village named Phulbari under Golapgonj Thana in Sylhet District, Bangladesh. The study population consisted of married women of reproductive age who had at least one child and had delivered the last child within two years of the period of data collection. A total of 384 mothers were enrolled for the study, and a purposive sampling technique was applied to select the mothers from the village. Mothers in Fulbari willing to participate and fulfil the selection criteria were recruited. The data was collected through a face-to-face interview using a semi-structured questionnaire. Collected data were entered and analyzed by SPSS version 17. Data was analyzed and presented as frequency, percentage, mean, and standard deviation. A Chi-square (χ^2) test was done with a probability of <0.05 considered as statistically significant. Knowledge of ANC includes knowledge of the importance of ANC, the time of ANC, the location where ANC is given, the minimum number of ANC visits, the necessity of the TT vaccine, alcohol and smoking during pregnancy, and sleep and rest during the antenatal period.

There were 14 questions marked one each aimed to judge the respondents' knowledge level about antenatal care. For the purpose of this study, knowledge level has been categorized into two types depending on answers scored in the questionnaire[7].

Good Knowledge: Having a score equal to or more than 7 out of 14.

Poor Knowledge: Having a score less than 7.

Practice of ANC: Mother's ANC practise includes whether or not ANC was received, the number of visits, the location of ANC, immunisation against TT vaccine, history of taking medication, history of any investigation, and sleep and rest during the antenatal period.

There were 9 questions marked one each aimed to judge the respondents' level of practices regarding antenatal care. The practise level has been classified into two types for study purposes based on the answers scored in the questions[7].

Good practice: Having a score equal to or more than 5 out of 9.

Poor practice: Having a score less than 5.

RESULTS

The mean age of the mothers was 26.44±5.42 years and majority (72.9%) of the mothers were from age group 20-30 years. The most (94%) of the mothers were housewives. The mean age at the marriage was 19.21±2.41 years and 61.4% of the mothers were married before the age of 18. The mean age at first child birth and mean parity were 20.40±2.58 years and

Table-I: *Socio demographic characteristics of the respondents (N=384)*

Variables	Frequency	Percentage
Age in years		
Below 20	47	12.2
20-30	280	72.9
30-40	54	14
>40	3	0.9
Educational status		
Illiterate	88	22.9
Primary	197	51.3
Secondary	93	24.2
Graduate	6	1.6
Occupation		
Housewife	362	94
Day labourer	11	3
Cultivation	11	3
Economic status		
Low income	287	74.7
Middle income	97	25.3
Age during marriage (years)		
<18	236	61.4
19-30	148	38.6
Age at first child birth (years)		
<18	197	51.4
19-30	184	47.9
>30	3	0.7

2.23±1.17, respectively, and the most (51.4%) of the mothers delivered babies before the age of 18. The mean monthly income was 8915.89±5078.85 Taka and most of the respondents 287 (74.7%) came from low socioeconomic status (Table-I).

Among the mothers, 38% knew about the recommended four antenatal visits, while 19% had no knowledge about antenatal visits. More than half of the

Table-II: *Knowledge regarding antenatal care (N=384)*

Variables	Frequency	Percentage
Recommended antenatal visits		
Once	19	4.9
Twice	35	9.1
Three times	111	29
Four times	146	38
Don't know	73	19
Visit in first trimester		
Yes	157	41
No	227	59
Place of visit		
NGO	146	38
Upazilla health complex	58	15
Private clinic	153	40
At home by trained dai	27	7
TT vaccination		
Yes	312	81.3
No	72	18.7
Iron and folic acid tablets		
Yes	280	72.9
No	104	27.1

mothers (59%) didn't know that they had to go for an antenatal visit in the first trimester. Most of the (81.3%) mothers had knowledge about vaccination against tetanus during pregnancy, and 72.9% of the mothers knew to take iron and folic acid tablets during pregnancy (Table-II).

The mean knowledge score of the mothers was

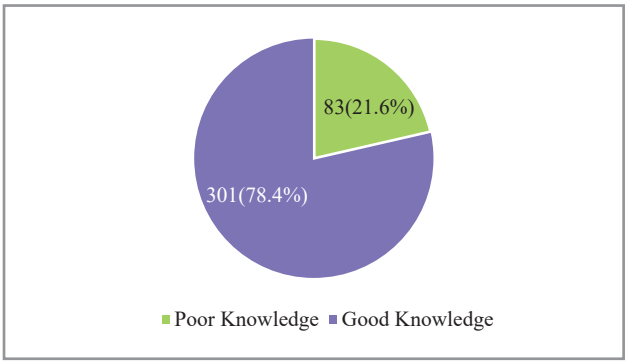

Figure-1: *Distribution of the mothers according to knowledge score (N=384)*

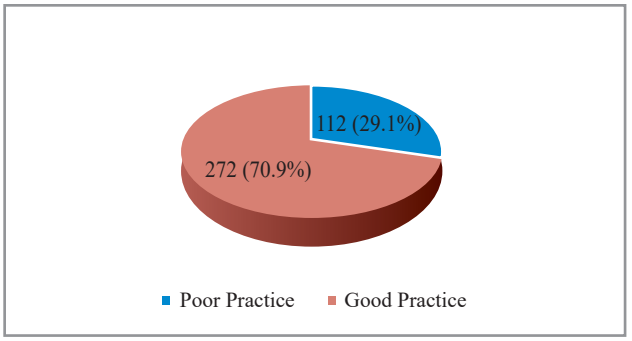

Figure-2: *Distribution of the mothers according to practice score (N=384)*

9.33±2.94. Among 384 respondents, 301 (78.4%) had a good knowledge score, while 83 (21.6%) had a poor knowledge score regarding antenatal care (Figure-1). The result revealed that the mean practice score was 6.13±2.69. Among the total respondents, 272 (70.9%) had a good practice score, while 112 (29.1%) had a poor practice score (Figure-2).

Table-III: *Association between economic status and utilization of antenatal care by the respondents (N=384)*

Economic status	ANC received		Total (%)	p-value
	No (%)	Yes (%)		
Low income	61 (21.3)	226 (78.7)	287(100)	0.085
Middle income	7 (7.2)	90 (92.8)	97 (100)	
Total	68 (17.7)	316 (82.3)	384(100)	

Table-IV: *Association between antenatal care used by the mothers and their place of delivery (N=384)*

Place of delivery	ANC received by the mothers		Total (%)	p-value
	No (%)	Yes (%)		
Institutional	7 (4.7)	140 (95.3)	147 (100)	0.004
Home	61 (25.7)	176 (74.3)	237 (100)	
Total	68 (17.7)	316 (82.3)	384 (100)	

Utilization of antenatal care did not differ significantly (p=0.085) among different economic status of the families (Table-III). Of the 384 responders, 147 (38.3%) gave birth in medical facilities and 237 (61.7%) did so at home. In hospital deliveries, 140 (95.3%) of the mother received ANC, compared to 176 (74.3%) in home deliveries. The difference was statistically significant (p=0.004). A total of 82.3% of rural mothers received antenatal care during their last pregnancy (Table IV).

DISCUSSION

Antenatal care is an important issue which has been given priority in recent health policy as well as at an individual level. The mean age of the mothers interviewed was 26.44±5.42 years. This finding is similar to the study by Shahjahan et al. in which the mean age was 24±4.92 years[8]. The mean monthly income was 8915.89±5078.85 Taka and 74.7% of the respondents came from low socioeconomic status. A study in Japan provides evidence that family income is one of the most significant predictors of the utilisation of ANC services. Women with a high income were 2.6 times more likely to have received ANC than women with a low income[9]. In the present study, there was no significant relationship between monthly income and utilization of ANC, but still, the study shows that the percentages of women with middle-income families utilize more antenatal care than low-income families. In this study, the mean knowledge score of the respondents was 9.33±2.94. The proportion of respondents with good knowledge was 78.4% and poor knowledge was 21.6%. Rosliza and Muhamad found different results in their survey. The mean knowledge score of the respondents was 13.5±2.7 and the proportion of respondents with good knowledge was 44.2% with 95% a confidence interval of 34.7 to 53.7 percent[7]. This disparity could be related to differences in socioeconomic status and educational attainment between the two research populations.

The present study revealed that 59% of the respondents had inadequate knowledge regarding the importance of coming early, that is, in the first trimester for their first antenatal check-up. This study revealed that 82.3% of rural mothers received antenatal care during their last pregnancy. This proportion of utilization of ANC is much higher than the study done by Ye et al., where only 46.1% had received ANC service[10]. This dissimilarity between these results may be due to time and other relevant factors.

The findings of our study showed that 61.7% had their last delivery at home, which is nearly similar (66.8%) to a survey in Northern Bangladesh[6]. The present study showed that women who received antenatal care had delivered their last child at an institution, which was statistically significant.

CONCLUSION

There were quite a few gaps in the knowledge and practices of antenatal care in this study. The practice of home delivery is still common among the respondents, and a high proportion of them came late for their first antenatal check-up. To improve community knowledge and practises of ANC, information, education, and communication initiatives should be strengthened through community campaigns and mainstream media.

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