

# Awareness about Antenatal Care Services among Rural Pregnant Women

Zafreen F<sup>1</sup>, Rahman MM<sup>2</sup>, Rahman L<sup>3</sup>, Wahab MA<sup>4</sup>

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## Abstract

**Introduction:** Antenatal care (ANC) is the care of a pregnant woman required to ensure a healthy pregnancy and safe childbirth. According to the World Health Organization to achieve the full life-saving potential for pregnant women and babies, minimum four ANC visits are essential. Quality and quantity of ANC visit depends on socio-demographic characteristics, knowledge, awareness and attitude of the individual. To get the benefits from ANC services awareness among pregnant women and their family members are very important.

**Objective:** To evaluate the awareness about ANC services among the pregnant women of a rural community of Bangladesh.

**Materials and Methods:** This descriptive cross-sectional study was conducted among the pregnant women attending the outpatient department of Kaligonj Upazila Health Complex, Gazipur, Bangladesh from January to March 2017. Data were collected by face-to-face interview of the respondents using a structured questionnaire. Chi-square ( $\chi^2$ ) test was done to see the association among the respondents' socio-demographic characteristics with awareness about ANC services.

**Results:** Respondents' age range was 16-40 years and 61.9% were below 25 years and 71.1% married before 20 years. More than half (66.5%) of the respondents' found aware about pregnancy danger sign, safe delivery and benefits of antenatal care services. This study found a significant ( $p < 0.05$ ) association between socio-demographic characteristics of respondents and awareness about ANC services.

**Conclusion:** Overall knowledge and awareness status on different component and benefits of ANC services were below the national standard. To improve the community awareness and practice on ANC services community campaign is recommended.

**Key-words:** Antenatal care, Pregnant women, Awareness.

## Introduction

Antenatal care (ANC) is the care a pregnant woman requires in order to ensure a healthy pregnancy and safe child birth<sup>1</sup>. A pregnant woman is supposed to have regular antenatal check-ups with a midwife or a doctor who specializes in pregnancy and birth<sup>2</sup>. According to World Health Organization (WHO), at least four visits providing essential evidence-based interventions-a package often called 'focused antenatal care'; are required to achieve the full life-saving potential that ANC promises for women and babies<sup>3</sup>. The ANC visits not only identifies the risk of pregnancy outcome and their intervention, but also persuade pregnant mother to opt for skilled attendance at birth and encourage them to have healthy behaviours such as early breastfeeding, early postnatal care and planning for optional pregnancy spacing<sup>4</sup>. Among the four recommended ANC visits the first one is advised at 8-12 weeks, the second one at 24-26 weeks, the third one at 32 weeks and the fourth one at 36-38 weeks of pregnancy<sup>5</sup>. The practice of having ANC during pregnancy is low in developing countries<sup>6</sup>. In Bangladesh, the percentage of women receiving at least one ANC visit rose from 51% to 79% during the years 2011 to 2014 but this percentage is low in a rural area and the population having less education<sup>7</sup>.

To implement the knowledge, awareness, attitude and practice of Antenatal care intervention among pregnant women, ANC has been considered as a package comprising the following interlocking systems including- interventions, early screening, administration of preventive prophylactic therapy and curative treatment of the various detected risk conditions effectively on the basis of reduced maternal complications<sup>2</sup>. However, the major goal of ANC service is to ensure the birth of a healthy baby with minimal risk for the mother<sup>8</sup>. During pregnancy, the concern of the mother's health is the utmost important<sup>9</sup>. Common conditions that affect the mothers' health are malnutrition, gestational diabetes mellitus (GDM), infection, preeclampsia and eclampsia<sup>10</sup>. By providing adequate information through ANC, it is possible to improve maternal health and safe delivery.

1. Dr Farzana Zafreen, MBBS, MPH, Associate Professor & Head, Department of Community Medicine, Medical College for Women and Hospital, Uttara, Dhaka 2. Major General Md Mahbubur Rahman, MBBS, MMed, MCPS, DPH, Commandant, Armed Forces Medical College, Dhaka 3. Lt Col Latifa Rahman, MBBS, MPH, MPhil, Associate Professor of Community Medicine, Armed Forces Medical College, Dhaka 4. Lt Col Md Abdul Wahab, MBBS, MD, Associate Professor of Biochemistry, Armed Forces Medical College, Dhaka.

At least four ANC visit is essential to increase awareness regarding nutritional status, pregnancy risk factors, a probable disease that might affect the health of the pregnant mother, safe delivery, knowledge about exclusive breastfeeding, proper weaning and birth spacing<sup>7,11</sup>. Proper ANC services and management can help to reduce maternal mortality rate (MMR) in Bangladesh. To get the benefits from ANC services, awareness among pregnant women and their family members are very important. This study was designed to see the awareness about ANC service among rural pregnant women attending outpatient department (OPD) of an Upazila Health Complex. Findings of this study might be beneficial for the healthcare policy maker to take special measure to ensure ANC services among rural pregnant women.

### Materials and Methods

This descriptive cross-sectional study was conducted among the rural pregnant women attending the OPD of Kaligonj Upzilla Health Complex, Gazipur, Bangladesh from 01 January to 31 March 2017. Total 260 pregnant women of 16-40 years of age who attended the OPD during the study period were included in this study. All information was collected by face-to-face interview with a structured questionnaire. Informed written consent was taken from all the participants and from the hospital authority. The collected data were processed and analyzed by using computer software 'SPSS 20.0'. Data were presented as frequency and percentage. Chi-square ( $\chi^2$ ) test was done to see the association among the participants socio-demographic characteristics with knowledge and awareness about ANC services;  $p < 0.05$  considered as significant.

### Results

A total of 260 pregnant women's information regarding socio-demographic characteristics, reproductive health history and knowledge regarding antenatal care services were collected. Age of the respondents were ranged from 16 to 40 years but most of them 161(61.9%) were below 25 years. Majority 161(61.9%) of the respondents were primary level educated but 136(52.3%) of their husbands were secondary level educated. Among the respondents 128(49.2%) were housewife and 116(44.6%) were garments worker but 126(48.5%) of their husbands were garments worker and 112(43.1%) were day labourers. Majority 162(62.3%) of the respondents' monthly family income was less than 10,000 Taka (Table-I). Most 185(71.2%) of the respondents' age of marriage were below 20 years. Majority 148(56.9%) of the respondents had experience of previous pregnancy and among them, 75(50.7%) had delivery at their home and 65(43.9%) experienced various types of complication (Table-II).

**Table-I:** Distribution of respondents by their socio-demographic characteristics (n=260)

Characteristics		n	%
Age Group (in years)	16-20	95	36.6
	21-25	66	25.4
	26-30	54	20.7
	31-35	35	13.5
	>36	10	3.8
Religion	Islam	232	89.2
	Hindu	24	9.2
	Others	4	1.6
Respondents' Education Status	Primary	160	61.5
	Secondary	77	29.6
	Others	23	8.9
Husbands' Education Status	Primary	75	28.8
	Secondary	136	52.3
	Others	49	18.9
Respondents' Occupation Status	Housewife	128	49.2
	Garments Worker	116	44.6
	Others	16	6.2
Husbands' Occupation Status	Day Laborers	112	43.1
	Garments Worker	126	48.4
	Others	22	8.5
Monthly Family Income (BDT)	≤ 10000	162	62.3
	10000-20000	87	33.5
	> 20000	11	4.2

**Table-II:** Distribution of respondents by reproductive health history

Characteristics		n	%
Age of Marriage	16-20	185	71.1
	21-25	72	27.7
	26-30	03	1.2
Gestational Age	≤ 12 Weeks	54	20.8
	13 - 26 Weeks	83	31.9
	27- 32 Weeks	77	29.6
	> 32 Weeks	46	17.7
Number of Previous Live Birth	None	112	43.1
	One	103	39.6
	Two	38	14.6
	Three or more	7	2.7
Place of Previous Delivery	Home	75	50.7
	Health Centre	42	28.4
	Hospital	31	20.9
Complications in previous Pregnancy	Yes	65	43.9
	No	83	56.1
Type of Complications* in Previous Pregnancy	GDM	28	43.1
	Pre-eclampsia	25	38.5
	Eclampsia	16	24.6
	Perennial	21	32.3

\*Multiple response

Among the respondents, 173(66.5%) were found aware about antenatal care services and 141(54.2%) knew about requirement of minimum 4 visits of ANC. Half of the respondents had no awareness about blood and urine examination during ANC visit and birth spacing.

Maximum respondents 183(70.4%) had knowledge and awareness regarding rest, extra food and proper hygiene. Regarding awareness about pregnancy danger sign and safe delivery was found 122 (46.9%) and 142(54.6%) respectively. Only 115(44.2%) found aware about exclusive breastfeeding, 87(33.5%) about colostrums feeding and 155(59.6%) about proper weaning (Table-III).

Association among respondents' socio-demographic characteristics and awareness about ANC service were done by Chi-square ( $\chi^2$ ) test. Respondents' education and husband's education level, respondents' occupation and husband's occupation status, monthly family income and age of marriage had significant ( $p < 0.05$ ) association with respondents' awareness status about ANC services but no significant association ( $p > 0.05$ ) was found with age (Table-IV).

**Table-III:** Distribution of respondents by awareness about ANC services (n=260)

Characteristics	n		%
	Yes	No	
Awareness about ANC	173	87	66.5
Awareness about at least 4 ANC visit and their time	141	119	54.2
Awareness about Blood & Urine Examination	129	131	49.6
Awareness about Rest, Extra Food & Proper Hygiene	183	77	70.4
Awareness about Danger Sign	122	138	46.9
Awareness about Safe Delivery	142	118	54.6
Awareness about Exclusive Breast Feeding	115	145	44.2
Awareness about Colostrums Feeding	87	173	33.5
Awareness about Proper Weaning	155	105	59.6
Awareness about Birth Spacing	128	132	49.2

**Table-IV:** Association of respondents' socio-demographic characteristics and awareness about ANC services (n=260)

Characteristics	Awareness about ANC		Total	Statistics
	Yes	No		
Age of the Respondents in Years	≤ 25	87	74	$\chi^2 = 0.01$ $p > 0.05$
	> 25	54	45	
	Total	141	119	
Education Status of the Respondents	Primary	75	85	$\chi^2 = 6.42$ $p < 0.05$
	Secondary & Others	63	37	
	Total	141	119	
Respondents Husband's Education Status	Primary	30	45	$\chi^2 = 8.6$ $p < 0.05$
	Secondary & Others	111	74	
	Total	141	119	
Occupation Status of the Respondents	Housewife	57	71	$\chi^2 = 8.8$ $p < 0.01$
	Garments Workers & Others	84	48	
	Total	141	119	
Respondents Husband's Occupation Status	Day Laborer	49	63	$\chi^2 = 8.7$ $p < 0.01$
	Garments Workers & Others	92	56	
	Total	141	119	
Respondents' Monthly Family Income (in Taka)	≤ 10000	80	82	$\chi^2 = 4.07$ $p < 0.05$
	> 10000	61	37	
	Total	141	119	
Respondents' Age of Marriage (in Years)	< 20	85	100	$\chi^2 = 17.7$ $p < 0.001$
	≥ 20	56	19	
	Total	141	119	

## Discussion

This study found the majority (62%) of the respondents' age was below 25 years and no significant association between age and awareness about ANC services. This finding is consistent with the study on a rural population of Bangladesh done by Begum N et al<sup>11</sup> but another study from a rural population of Tamil Nadu, India<sup>5</sup> revealed maternal age is one of the important predictors for ANC. Most (61.5%) of the respondents' education status was up to primary level whereas 71.2 % of their husband's education status was secondary level and above. Respondents' education and their husband's education status were significantly associated with respondents' awareness about ANC service. These findings conform to other similar studies in Bangladesh<sup>11-13</sup>.

Most (49.2%) of the respondents were housewives but 44.6% respondents and 48.4% of their husband were garments workers. Respondents' and their husband's occupation had a significant association with respondents' awareness about ANC services, which conforms to WHO reports<sup>1,7,9</sup>. Majority (54.2%) found aware about four ANC visits during their pregnancy. This finding is lower as compared to the findings in another study done in Tanzania<sup>2</sup> where 70% of women took four ANC visits during pregnancy but consistent with other studies<sup>7,11,13</sup>. Among the respondents' 46.9% was aware about pregnancy danger sign and 54.6% was aware about safe delivery which was similar to others studies<sup>11,13</sup> but a study in Indonesia<sup>12</sup> found that about 63.4% of the respondents had awareness about pregnancy danger signs.

About 71% of the respondents' age of marriage was below 20 years and age of marriage had a significant association with awareness about ANC services, those who were more aged during marriage had more aware about ANC services. This finding conforms to WHO reports<sup>1,7,9</sup> and similar studies at home<sup>11,13</sup> and abroad<sup>2,5,6,10</sup>.

## Conclusion

It is concluded from the study that the overall knowledge and awareness level on different component and benefits of ANC services in the study area was below the national standard. Respondents' age of marriage, education, occupation, monthly family income, husband's education and occupation have a significant impact on awareness about ANC services. To get full benefit, community intervention about awareness and practice on ANC services is recommended.

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