Health Factors Associated with Antenatal Care among Women in Rural Bangladesh
Fakhria Alam¹, Gulnar Begum², Md. Alauddin³

¹Senior Consultant, Department of Gynaecology & Obstetrics, 250 bedded General Hospital, Jamalpur, Bangladesh
²Senior Consultant, Department of Radiology and Imaging, 250 bedded General Hospital, Jamalpur, Bangladesh
³Junior Consultant (Anaesthesiology), Sherpur District Hospital, Mymensingh, Bangladesh

DOI: 10.36347/sjams.2020.v08i07.011 | Received: 22.06.2020 | Accepted: 30.06.2020 | Published: 12.07.2020

*Corresponding author: Dr. Fakhria Alam

Abstract

**Introduction**: One of the MDG5 tactical goals is to improve access to prenatal and postpartum programs that effectively reduce the morbidity associated with postpartum maternal health. Proper antenatal care is a very few of the pillars of Harmless Motherhood Initiatives, an international effort thrown by the World Health Organization (WHO) and other cooperating agencies in 1987 intended to lessen the quantity of deaths related to pregnancy and childbirth. Aim of the Study: the aim of this study is to identify the factors associated with antenatal care among women in rural area. **Material & Methods**: This is a cross sectional study conducted in the department of Obstetrics & Gynecology of 250 bedded General Hospital, Jamalpur, Bangladesh during the period from January 2018 to December 2018. A total number of 174 ever-married reproductive aged women with at least one child were selected for this study. In this study the method of direct interview was used for data collection. Attention was given to record factual and true statement made by the respondents. The fieldwork was commenced on from 1st November 2016 and was completed 10th February 2018. **Results**: Age range of the study participants were from 16 to below 40 years, where almost half of the respondents (44.82%) were aged 20-24 years, 10.91% were aged <=19 years and only 8.04% are aged <40 years. The socio-demographic characteristics of the study participants shows, majority (60.92%) were aged between 16-19 years at the time of their marriage, and 39.65% of the total participants were aged between 18-20 years at their first delivery; 72.41% have one child; 82.76% of the total participants were from rural area and the rest 17.24% were from urban area. Of the total patient 87.94% have currently used contraceptive and 74.13% have previously used contraceptive; majority (33.9%) had been on oral pill, 32.18% were using condoms, and 25.31% had no adopted methods; no. of antenatal visits shows that, 82.7% had visited less than 4 times and the rest 17.3% had visited more than 4 times; majority (60.9%) selected hospital as the place of antenatal visits and only 1.18% selected NGO as the place of antenatal visits; 67.24% had normal delivery and most of the patients (93.11%) continued breastfeeding. **Conclusion**: Public health policies intended to reduce maternal morbidity and mortalities in Bangladesh should consist of strategies that will advance maternal health care service (MHCS) and true standardize postnatal healthcare service. Mothers is highlighted as a significant component in motherly healthcare as per suitable care will lead to effective pregnancy outcome and healthy babies. One of the most significant roles of ANC is to offer health info and services that can significantly recover the health of women and their infants [5]. Moreover, ANC during pregnancy seems a helpful impact on the use of postnatal healthcare services [6]. All pregnant women are suggested to go for their first antenatal check-up in the first trimester for recognizing and dealing any medical complication also to screen them for any risk factors that might disturb the advancement and result of their pregnancy. Experiential evidence shows that four visits are sufficient for basic pregnancies and more are

INTRODUCTION

Antenatal care is a vital element of safe delivery [1]. Proper antenatal care is a very few of the pillars of Harmless Motherhood Initiatives, an international effort thrown by the World Health Organization (WHO) and other cooperating agencies in 1987 intended to lessen the quantity of deaths related to pregnancy and childbirth [2]. Even though confident obstetric emergencies cannot be predicted through antenatal screening, females can be educated to recognize and take actions on warning sign leading to theoretically serious situations [3]; this is one approach to drop maternal mortality [4]. The care of antenatal mothers is highlighted as a significant component in motherly healthcare as per suitable care will lead to effective pregnancy outcome and healthy babies. One of the most significant roles of ANC is to offer health info and services that can significantly recover the health of women and their infants [5]. Moreover, ANC during pregnancy seems a helpful impact on the use of postnatal healthcare services [6]. All pregnant women are suggested to go for their first antenatal check-up in the first trimester for recognizing and dealing any medical complication also to screen them for any risk factors that might disturb the advancement and result of their pregnancy. Experiential evidence shows that four visits are sufficient for basic pregnancies and more are
required only in cases of difficulties [7]; hereafter the World Health Organization currently acclaims at least four ANC visits in the course of pregnancy. Numerous studies have observed issues affecting ANC utilization [8-12] but none has methodically summarized them in developing countries. Only one assessment has inspected interventions, which increase use of ANC [13]. According to the Perinatal Care Manual recently edited by the Ministry of Health Malaysia, primigravida women are advised to go for a total of ten visits during their pregnancy and for multigravida women, the total recommended antenatal visit is seven sessions [14].

**OBJECTIVES**

**General Objective**
- To identify the factors associated with antenatal care among women in rural area

**Specific Objectives**
- To assess the initiatives to increase access to antenatal care for ultra-poor population of Bangladesh
- To identify more about antenatal care services and present conditions in rural Bangladesh

**METHODOLOGY AND MATERIALS**

This is a cross sectional study conducted in the department of Obstetrics & Gynecology of 250 bedded General Hospital, Jamalpur, Bangladesh during the period from January 2018 to December 2018. A total number of 174 ever-married reproductive aged women with at least one child were selected for this study. In this study the method of direct interview was used for data collection. Attention was given to record factual and true statement made by the respondents. The fieldwork was commenced on from 1st November 2016 and was completed 10th February 2018.

**Inclusion Criteria**
- Ever-married and reproductive aged group.
- Age between 16-40 years

**Exclusion Criteria**
- Age not less than 16 years or above 40 years
- Not given consent
- Severely ill women

**RESULTS**

A total number of 174 ever-married reproductive aged women with at least one child were selected for this study. Age range of the study participants were from 16 to below 40 years, where almost half of the respondents (44.82%) were aged 20-24 years, 10.91% were aged <=19 years and only 8.04% are aged <40 years (Figure-1). Table-1 shows the socio-demographic characteristics of the study participants where we see, majority (60.92%) were aged between 16-19 years at the time of their marriage, and 39.65% of the total participants were aged between 18-20 years at their first delivery; 72.41% have one child, 19.54% have two children and 8.05% have three children; 82.76% of the total participants were from rural area and the rest 17.24% were from urban area; majority of them were educated up to secondary level and only 6.91% were higher educated. Education, occupation and monthly income of the respondents and respondent’s husband are also shown in Table-1. Distribution of Health-related Variables of the study participants shown in Table-2 describes that, majority (78.74%) of the participants had normal BMI; of the total patient 87.94% have currently used contraceptive and 74.13% have previously used contraceptive; majority (33.9%) had been on oral pill, 32.18% were using condoms, and 25.31% had no adopted methods; no. of antenatal visits shows that, 82.7% had visited less than 4 times and the rest 17.3% had visited more than 4 times; majority (60.9%) select hospital as the place of antenatal visits and only 1.18% selected NGO as the place of antenatal visits; 67.24% had normal delivery and most of the patients (93.11%) continued breastfeeding. Table-3 shows the patterns of antenatal care visits according to the health-related variables. From the distribution of Iron and Folic Acid intake of the study participants (Table-4) we see most of the participants (86.78%) consumed Iron or Folic Acid tables and majority (64.94%) of them consumed 100-149 Iron or Folic Acid.

![Fig-1: Age distribution of the study participants (n=174)](image-url)
Table-1: Distribution of the socio-demographic characteristics of the study participants (n=174)

| Socio-demographic variable | n   | %    |
|----------------------------|-----|------|
| Age at Marriage            |     |      |
| <16 years                  | 12  | 6.89 |
| 16-19 years                | 106 | 60.92|
| >19 years                  | 56  | 32.19|
| Age at First Delivery      |     |      |
| <18 years                  | 45  | 25.87|
| 18-20 years                | 69  | 39.65|
| >20 years                  | 60  | 34.48|
| CEB                        |     |      |
| One child                  | 126 | 72.41|
| Two child                  | 34  | 19.54|
| Three child                | 14  | 8.05 |
| Place of previous delivery |     |      |
| Hospital                   | 90  | 51.72|
| Home                       | 69  | 39.65|
| PHC                        | 15  | 8.63 |
| Place of Residence         |     |      |
| Urban                      | 30  | 17.24|
| Rural                      | 144 | 82.76|
| Educational Status of Respondents | | |
| Illiterate                 | 25  | 14.36|
| Primary educated           | 35  | 20.11|
| Secondary educated         | 102 | 58.62|
| Higher educated            | 12  | 6.91 |
| Educational Status of Respondent’s Husband | | |
| Illiterate                 | 16  | 9.19 |
| Primary educated           | 21  | 12.06|
| Secondary educated         | 114 | 65.52|
| Higher educated            | 23  | 13.23|
| Occupation of Respondent’s Husband | | |
| Job                        | 6   | 3.44 |
| Business                   | 48  | 27.58|
| Farmer                     | 97  | 55.74|
| Day Labor                  | 23  | 13.28|
| Monthly Income of Family   |     |      |
| ≤ 6000 taka                | 71  | 40.80|
| 6000-8000 taka             | 73  | 41.95|
| >8000 taka                 | 30  | 17.25|

Table-2: Distribution of Health-related Variables of the study participants (n=174)

| Health related variables | n   | %    |
|--------------------------|-----|------|
| Body Mass Index (BMI)    |     |      |
| Underweight              | 17  | 9.77 |
| Normal                   | 137 | 78.74|
| Overweight               | 20  | 11.49|
| Currently Used Contraceptive | | |
| Yes                      | 21  | 12.06|
| No                       | 153 | 87.94|
| Previously Used Contraceptive | | |
| Yes                      | 129 | 74.13|
| No                       | 45  | 25.87|
| Adopted Method           |     |      |
| Oral pill                | 59  | 33.9 |
| Condom                   | 56  | 32.18|
| IUD                      | 2   | 1.14 |
| Injection                | 13  | 7.47 |
| No adopted method        | 44  | 25.31|
| No. of Antenatal Visits  |     |      |
| ≤4 visits                | 144 | 82.7 |
| ≥4 visits                | 30  | 17.3 |
| Place of Antenatal visits|     |      |
| Hospital                 | 106 | 60.9 |
| Clinic                   | 57  | 32.75|
| Community health center  | 9   | 5.17 |
| NGO                      | 2   | 1.18 |
| Nature of Delivery       |     |      |
| Non-caesarean            | 117 | 67.24|
| Caesarean                | 57  | 32.76|
| Breastfeeding            |     |      |
| No                       | 12  | 6.89 |
| Yes                      | 162 | 93.11|
| Total                    | 174 | 100  |

Table-3: Patterns of Antenatal Care Visits According to the Health-Related Variables (n=174)

| Characteristics  | < 4 visits | ≥4 visits | P value |
|------------------|-----------|-----------|---------|
| BMI              |           |           |         |
| Underweight      | 15(88.23%)| 2(11.77%) | 17(100.0%)|
| Normal           | 122(89.05%)| 15(10.95%)| 137(100.0%)|
| Overweight       | 12(60%)   | 08(40%)   | 20(100.0%)|
| Place of Residence|         |           |         |
| Rural            | 119(82.63%)| 25(17.37%)| 144(100.0%)|
| Urban            | 23(76.66%) | 7(23.34%) | 30(100.0%) |
**DISCUSSION**

A total number of 174 ever-married reproductive aged women with at least one child were selected for this study. Risk of complications in second pregnancy is generally much inferior if the first pregnancy and birth was uncomplicated than if it was not [15]. Many women have earlier reported less ANC visits than nulliparous perhaps because they had experienced previous pregnancies [16, 17]. There was no statistical evidence for late initial visit attendance of ANC among multiparous women as found in previous studies in Vietnam [17, 18]. In this study, of the total patient 87.94% have currently used contraceptive and 74.13% have previously used contraceptive; majority (33.9%) had been on oral pill, 32.18% were using condoms, and 25.31% had no adopted methods; no. of antenatal visits shows that, 82.7% had visited less than 4 times and the rest 17.3% had visited more than 4 times; majority (60.9%) selected hospital as the place of antenatal visits and only 1.18% selected NGO as the place of antenatal visits; 67.24% had normal delivery and most of the patients (93.11%) continued breastfeeding; majority of respondents live in rural area which is 82.76%. The educational background of the respondents is concerned that respondents have the values of early pregnancy may play vital role. Income generating work chances should be increased for women so that they can be financially independent to seek better health care services. Initiatives to increase access to antenatal for ultra-poor population. Availability of health care facilities and skilled health professionals need to be ensured in the rural areas of Bangladesh so that women do not seek care from non-qualified unskilled doctors, pharmacy or traditional healers.

**LIMITATIONS OF THE STUDY**

This cross-sectional study was conducted in a single community. It was also based on respondent’s personal report on satisfaction. So, the results might not reflect the actual scenarios of the whole community.

**CONCLUSION AND RECOMMENDATIONS**

The indication from this study advises that public health policies intended to reduce maternal morbidities and mortalities in Bangladesh should consist of strategies that will advance maternal health care service (MHCS) through: Increasing maternal education in all regions especially rural areas. Health campaigns against early marriage and awareness program to inform teenage and young women about the dangers of early marriage and awareness programs which will increase the rate of child marriage and will decrease the rates of early marriage and pregnancy. Social change is crucial to fulfill these needs.

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**Table-4: Distribution of Iron and Folic Acid intake of the study participants (n=174)**

| Variables                        | n  | %   |
|----------------------------------|----|-----|
| Status of Iron and Folic Acid intake |    |     |
| Yes                              | 151| 86.78 |
| No                               | 23 | 13.22 |
| Total                            | 174| 100  |
| Number of Iron and Folic Acid intake |    |     |
| ≤50                              | 17 | 09.77 |
| 50-99                            | 24 | 13.80 |
| 100-149                          | 113| 64.94|
| 150-200                          | 14 | 08.04 |
| ≥200                             | 6  | 3.45 |
| Total                            | 174| 100  |
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