

Community Based Cross- Sectional Study to Assess the Utilization Pattern of Antenatal Health Care Services among Married Women of Reproductive Age Group in a Rural Area of Bihar

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Abstract

Background: ANC services is important to ensure safe motherhood. The present study was conducted to assess the utilization of ANC services in rural area. **Subjects and Methods:** The present study was community based cross-sectional in nature conducted upon 180 currently married women having children of less than one year of age and living in the area covered by rural training center of the institute. Sociodemographic profile and details of utilization of ANC services were noted. **Results:** Most of the respondents belonged to the age group of 20-30 years. 37.2% of them were illiterate and 58.9% lived in nuclear family. 53.9% had institutional delivery and 42.2% had more than two children. 42.8% of mothers registered their pregnancy before 12 weeks. Only 17.2% mothers had four or more ANC visits. 87.2% of them were fully immunized against tetanus but only 11.1% consumed 100 or more IFA tablets. Lack of awareness was responsible in 28.2%, lack of transport in 16.8%, unwillingness in 34.2% and other reasons in 20.8% cases among the mothers not utilizing ANC services properly. **Conclusion:** Utilization of ANC services is poor in this area.

Keywords: ANC services, Cross-sectional study, Utilization.

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Introduction

It has been estimated that every year, 5 lakh women die globally as a result of pregnancy and childbirth worldwide. It has been found that about 88%-98% of these deaths are preventable by proper care and handling during pregnancy and labour.^[1] 50 million women in India suffer from maternal morbidity due to acute complications from pregnancy.

Quality antenatal, intranatal, and postnatal care is the single most important factor to prevent maternal and infant morbidity and mortality. WHO has recommended a minimum of four antenatal care (ANC) visits to ensure safe motherhood.^[2]

However, utilization of maternal healthcare services is low. In India more than one in five mothers received no antenatal care. Almost two-thirds of women in Bihar did not receive any antenatal care. Common reasons include high illiteracy among females, early marriages, ignorance, low quality as well as high cost of service, social structure, detrimental health beliefs, personal characteristics, and malnutrition.^[3]

Various authors have explored the factors associated with poor utilization of maternal healthcare services.^[4-11] No such study has been conducted in this area. Hence, the present study was proposed.

Aims & Objectives

The present study was conducted to assess the utilization of ANC services in rural area of Bettiah, Bihar.

Subjects and Methods

Study setting:

The present study was conducted at the Department of PSM, Government Medical College, Bettiah, Bihar. The institute caters to population of West Champaran and adjoining area of Nepal.

Study Design:

The present study was community based cross-sectional in nature.

Study subjects:

Study subjects included currently married women having children of less than one year of age.

Inclusion criteria:

The currently married women having children of less than one year of age and living in the area covered by rural training center of the institute were included in the present study.

Exclusion criteria:

Seriously ill patients and those who refused to give consent were excluded.

Sampling:

Sample size was calculated using the formula

Sample size = 4 pq/d²

NFHS-4 reported that 13% women had minimum four ANC in rural areas of Bihar.^[3] Considering precision of 5%, the sample size was calculated to be 180. Thirty AWCs were randomly selected and from each, 6 mothers were randomly included.

Data collection procedure:

CDPO of the block was informed and consent was taken. AWCs were approached and informed about the study and their help was taken. Pre-tested proforma was used for data collection which included questions regarding background information and details of ANC.

Data analysis:

Data was entered in Microsoft Excel and analyzed using SPSS software. Percentage, proportions and contingency tables were used for description of the data. P value <0.05 was considered as statistically significant.

Ethical consideration & permission:

Approval from Institutional Ethics Committee was obtained. Informed consent was taken from the patients. Confidentiality of records was maintained.

Results

A total of 180 subjects were included in the present study. [Table 1] shows sociodemographic details. Most of the respondents belonged to the age group of 20-30 years. 37.2% of them were illiterate and 58.9% lived in nuclear family. 53.9% had institutional delivery and 42.2% had more than two children.

Table 1: showing sociodemographic details

Sociodemographic factor	Frequency	%
<20	29	16.1
20-30	112	62.2
>30	22	12.2
Illiterate	67	37.2
Primary	52	28.9
Secondary and above	61	33.9
Hindu	146	81.1
Muslim	34	18.9
Nuclear	106	58.9
Joint	74	41.1
Institutional	97	53.9
Home	83	46.1
<2	104	57.8
>2	76	42.2

[Table 2] shows the utilization of ANC services. 42.8% of mothers registered their pregnancy before 12 weeks. Only 17.2% mothers had four or more ANC visits. 87.2% of them were fully immunized against tetanus but only 11.1%

consumed 100 or more IFA tablets.

Table 2: showing utilization of ANC services

ANC Services	Frequency	%
Registration of pregnancy		
-<12 weeks	77	42.8
-12-24 weeks	65	36.1
->24 weeks	38	21.1
No. of ANC visits		
-Nil	34	18.9
-1-3	115	63.9
->3	31	17.2
TT immunization		
Nil	5	2.8
Partial	18	10
Fully immunized	157	87.2
Consumption of IFA tablets		
Nil	40	22.2
<100	121	67.2
100 and above	20	11.1

[Table 3] shows the reasons behind non-utilization of ANC services. Lack of awareness was responsible in 28.2%, lack of transport in 16.8%, unwillingness in 34.2% and other reasons in 20.8% cases among the mothers not utilizing ANC services properly.

Table 3: showing reasons behind non-utilization of ANC services (n=149)

Reason	Frequency	%
Not knowing	42	28.2
Not willing	51	34.2
No transport	25	16.8
Others	31	20.8

Discussion

Antenatal care services are one of the key components of MCH services for ensuring safe motherhood and healthy newborn and infants. Poor utilization of these lead to delay in identification of high-risk cases and further morbidity and mortality.

The present study included 180 currently married women having children of less than one year of age and living in the area covered by rural training center. Most of the respondents belonged to the age group of 20-30 years. 37.2% of them were illiterate and 58.9% lived in nuclear family. 53.9% had institutional delivery and 42.2% had more than two children. Kakati et al found that 79.6% mothers belonged to Hindu religion and most of them (46.6%) belonged to OBC categories. Most of the women (66%) lived in nuclear families. Almost 50% of mothers were in the age group of 26-30 years. 17.6% were illiterate, 21.6% had attended primary school, 23.4% had attended middle school, 10.6% had attended higher secondary school and only 3.6% were graduate. Majority (53.3%) of mothers, house wife by occupation followed by 21% cultivators and 12.3% daily wage earners.^[1] Murthy et al found that 88.5% were in 20-34 years age group. Teenage pregnancies were 54%. 88.5% were housewives and 11.5% were working mothers (maximum was coolie workers). 84.5% women were literates. 75.5% husbands were literates. 80% mothers

were staying in joint family.^[7]

42.8% of mothers registered their pregnancy before 12 weeks. Only 17.2% mothers had four or more ANC visits. 87.2% of them were fully immunized against tetanus but only 11.1% consumed 100 or more IFA tablets. Kakati et al found that all (100%) the women were registered during the antenatal period and among them 53% were registered during first trimester and 45% were registered during second trimester. Among the registered women 68.7% had more than three antenatal visits followed by 31.3% had less than three antenatal visits. Majority of the women (90%) were fully immunized with TT vaccine followed by 8% were partially immunized i.e., received only one dose of TT vaccine. 71.6% of women consumed 100 or more IFA tablets followed by 26.3% of women received <100 IFA tablets. 73% of women in the age group of 19-30 years had adequate ANC followed by 56.8% of women in the age group of <19 years had adequate ANC and 42% of women in the age group of >30 years had adequate ANC.^[1] Murthy et al found that 90% mothers had undergone more than 3 ANC check-ups. All women had taken TT injection and IFA tablets. 94% mothers had consumed more than 100 IFA tablets during pregnancy. Women who were not taking IFA tablets regularly were due to vomiting (58.33%) and abdominal discomfort (41.67%).^[7]

Lack of awareness was responsible in 28.2%, lack of transport in 16.8%, unwillingness in 34.2% and other reasons in 20.8% cases among the mothers not utilizing ANC services properly. Kakati et al found that among the women who did not attend the ANC, 26.7% of women were reported being residence in remote areas followed by 22.6% were reported of unwillingness of ANC. Among them 21.6% of women were not aware about the need of antenatal care services and 18.6% had reported with difficulty in transportation.^[1] On enquiring about the reasons for inadequate utilization of ANC services, Shora et al found that the three major responses were nonawareness, financial constraints and non-availability of transport facilities.^[2]

Conclusion

The present study found that utilization of ANC services was inadequate in this area. Only 42.8% of mothers registered their pregnancy before 12 weeks and only 17.2% mothers had four or more ANC visits. There is need to create awareness regarding importance of these services to improve the situation.

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