



A CROSS SECTIONAL STUDY OF FACTORS AFFECTING UTILIZATION OF ANTENATAL SERVICES IN RURAL FIELD PRACTICE AREA OF KATIHAR MEDICAL COLLEGE KATIHAR.

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ABSTRACT

INTRODUCTION: Antenatal care plays an important part in Maternal Health care services. Antenatal care visit provides the opportunity of Assess the risks.

OBJECTIVES: The utilization of Antenatal care services by recently delivered mothers.

MATERIAL AND METHODS: A Cross sectional study was conducted in field practice area of Katihar Medical College since June 2018 to December 2019.

RESULT: Some mothers had received two doses of tetanus toxoid injection and IFA Tablets and some didn't receive.

CONCLUSION: Study Show poor utilization of maternal health care services.

KEYWORDS : Antenatal care, factor, Health care, Maternal mortality, utilization.

INTRODUCTION:

Antenatal care visit provides the opportunity to assess the risks and also to detect and treat conditions that may lead to various pregnancy related complication. The United Nations estimate that 529000 women die each year from complications during pregnancy and childbirth. Each year about 6 million women become pregnant; 5 million of these pregnant result in child birth^[1],

Antenatal care refers to the care that is given to an expectant mother from the time that conception is confirmed until the beginning of labor^[2]. Adequate utilization of antenatal health care services is associated with improved maternal and neonatal health outcomes. Antenatal care is expected to have impact on the development of the fetus and the infant as well as the mother and this can only be achieved through early booking and regular attendance of antenatal care centre.

The Trend of maternal mortality in developing countries has been increasing and various international organizations have reported that an important factor related to maternal and infant mortality has been linked to lack of antenatal care^[3]. According to Federal Ministry of health^[4], some of the dangers of pregnancy and childbirth can be avoided if the pregnant woman attends antenatal regularly, in order to decrease these mortality rates, regular antenatal care has to be instituted or reinforced which can only be achieved through identifying factors causing poor utilization of antenatal care services.

As per WHO recommendations for visit ANC should be necessary for lowering the risk of pregnancies. Antenatal care (ANC) services are considered to be the key element in the primary health care delivery system of a country, which aims for a healthy society.

As per the National data, health indicators including utilization of antenatal care services Were as poor as 60% in rural India^[5]

Knowledge, awareness and motivational regarding the utilization of antenatal care services are very much essential to improve the scenario n of maternal health.

OBJECTIVES:

To assess the utilization of antenatal care services by recently delivered mothers in Rural field practice area of Katihar Medical Collage.

MATERIAL AND METHODS:

A community based cross sectional conducting in Rural field practice area of RHTC Hajipur of Katihar Medical Collage Katihar during June 2018 to December 2019. A total of 300 recently delivered mothers were interviewed with the help of predesigned pretested and semi structured questionnaire.

Data were collected by personal interview and analysed by appropriate statistical methods. The proforma asked about the age of the mothers at birth parity, religion, type of families, educational status and occupational status, socioeconomic status (Modified BC Parsad Classification 2016) and household decision-making autonomy as predictor variables of maternal health care seeking behaviour. All the information regarding antenatal check-up (ANC) immunization status and iron and folic acid tablets consumption during pregnancy, place of delivery, mode of delivery were recorded^[6].

Data were collected and entered in Microsoft-office Excel and analyzed by using SPSS-version 18. Criteria of significance used in the study were $P < 0.05$.

RESULTS:

In the study out of 300 enrolled as shown in Table1, 79.7% were belonged to Muslim religion and were belonged to OBC categories, most of the women (66%) live in nuclear families. Almost 50% of mothers were in the age of group of 26-30 years. Concerning the educational status of the mothers 69% were illiterate, 15% had attended Primary School, 8% had attended Middle school, 5% had attended Matric Higher secondary 10+2 had attended 2% and only 1% were graduate Majority (89%) of mothers, house wife by occupation followed by 05% cultivators and 9% daily wage earners.

Among than 2% were service holders among study population 46% of the mothers belonged to lower middle class family followed by 26.3% were belonged to

Table-1 Sociodemographic profile of the study population

Sociodemographic profile	N (%)
Age of mother at last birth (years)	
<19	37 (12.3%)
19-25	76 (25.3%)
26-30	149 (49.7%)

>30	38 (12.7%)
Religion	
Hindu	61 (20.4%)
Muslim	239 (79.6%)
Castes	
General	52 (17.34%)
OBC	239 (79.6%)
SC	6 (2%)
ST	3 (1%)
Type of Family	
Nuclear	198 (66%)
Joint	102 (44%)
Educational status of mother	
Illiterate	207 (69%)
Primary school	45 (15%)
Middle school	24 (8%)
Matric	15 (5%)
Higher secondary 10+2	6 (2%)
Graduate	3 (1%)
Occupational status of mother	
House wife	267 (89%)
Cultivator	15 (5%)
Daily wage earner	9 (3%)
Service	6 (2%)
Shop keeper	3 (1%)
Socioeconomic status (per capita income on Rs)	
Upper high (>=6186)	15 (5%)
High (3093-6185)	31 (10.3%)
Upper middle (1856-3092)	79 (26.3%)
Lower middle (923-1855)	138 (46%)
Poor (<927)	37 (12.4%)
Place of delivery	
Govt institution	239 (79.6%)
Private institution	31 (10.3%)
Home	30 (10%)
Mode of delivery	
Normal	237 (79%)
CS	42 (14%)

Others	21 (7%)
Parity	
<2	209 (69.6%)
>2	91 (31%)

Upper middle-class family and 12.4% were belonged to poor socioeconomic class.

Majority (79.6%) of the mothers had delivered their children at Govt. Hospital followed by 10.6% at Private hospital and 10% at home. Majority (79%) of the children had delivered normally followed by 14%. By CS and 7% by assisted vaginal delivery. Majority of the mothers (69.6%) had single child followed by 30.4% had more than two children.

All study population (100%) as shown in Table-2 out of 300 The women were registered during the antenatal

Table-2 Distribution of study population according to the pattern of utilization of antenatal care services.

Pattern of utilization of Antenatal care services	N=300(%)
Peace of conduction of ANC	
Sub center	136 (45.3%)
State Dispensary / PHC	50 (16.6%)
BPHC/CHC	43 (14.3%)
Civil hospital / District hospital	39 (13%)
Medical collage	25 (8%)
Private practioner	07 (2.3%)
Timing of Registration	
<12 weeks	159 (53%)
12-24 weeks	135 (45%)
>24 weeks	06 (2%)
Numbers of antenatal visits	
None	0 (0)
1-3 visits	97 (32.3%)
>3 visits	203 (68.7%)
Immunization status (TT)	
Not immunized	06 (2%)
Partially immunized	24 (8%)
Fully immunized	270 (90%)
Intake of IFA tablets	
None	06 (2%)
<100	79 (26.3%)
≥100	215 (71.6%)

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 ie. Received only one dose of TT vaccine.

Among the study population 71.6% of women consumed 100 or more IFA tablets followed by 26.3% of women received < 100 IFA tablets

As shown in Table no. 3, considering more than three Antenatal visits as adequate, 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 and the association was found statistically significant (P<0.0006). Among 239 Muslim utilization of antenatal care

Table-3 Sociodemographic profile of study population and number of antenatal visits.

Sociodemographic profile	no. of Antenatal visits		p-value
Age of mothers at last birth(years)	1-3 visits (97%)n%	>3visits (203)n%	<0.0006
<19(37)	16 (43.2%)	21 (56.8%)	
19-25 (76)	20 (26.3%)	56 (73.7%)	
26-30 (149)	39 (26.1%)	110 (73.9)	
>30 (38)	22 (57.8%)	16 (42.2%)	
Religion			0.004
Muslim (239)	68 (28.4%)	171 (71.6%)	
Hindu (61)	29 (47.5%)	32 (52.5%)	
Casts			
General (52)	20 (20.8)	32 (15.7)	
OBC (239)	75 (77.31)	167 (80.78)	
SC (6)	2 (2.0)	4 (1.97)	
ST (3)	0	3 (1.47)	
Type of family			
Nuclear (198)	59 (29.7%)	139 (70.3%)	
Joint (102)	38 (37.2%)	64 (62.8%)	
Educational status of the mothers			0.1
Illiterate (207)	64 (30.9%)	143 (69%)	
Primary school (45)	15 (33.34%)	30 (66.67%)	
Middle school (24)	9 (37.5%)	15 (62.5%)	
Matric (15)	6 (40%)	9 (60%)	
10+2 (6)	2 (33.34%)	4 (66.66%)	
Graduate (3)	1 (33.34%)	2 (66.66%)	
Occupation status of mother			0.1
House wives (267)	87 (32.58%)	180 (67.4%)	
Cultivator (57)	6 (40%)	9 (60%)	
Daily wage earners (9)	3 (33.33%)	6 (66.67%)	
Service (6)	1 (16.67%)	5 (83.34%)	
Shopkeeper (3)	0 (0%)	3 (100%)	
Socioeconomic status (percapital income in Rs)			.0005
Upper high (5156 above) (15)	5 (33.3%)	10 (66.7%)	

High	7 (22.5%)	24 (77.5%)	
Upper middle	12 (16.1%)	67 (84.9%)	
Lower middle	60 (43.4%)	78 (56.6%)	
Poor	13 (35.1%)	24 (64.9%)	
Place if delivery			<0.0001
Govt institute (239)	65 (27.1%)	174 (77.9%)	
Private institute (31)	11 (35.4%)	20 (64.6%)	
Home (30)	21 (70%)	9 (30%)	
Graduate (3)	1 (33.34%)	2 (66.66%)	
Occupation status of mother			0.1
House wives (267)	87 (32.58%)	180 (67.4%)	
Cultivator (57)	6 (40%)	9 (60%)	
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Upper high (5156 above) (15)	5 (33.3%)	10 (66.7%)	
High	7 (22.5%)	24 (77.5%)	
Upper middle	12 (16.1%)	67 (84.9%)	
Lower middle	60 (43.4%)	78 (56.6%)	
Poor	13 (35.1%)	24 (64.9%)	
Place if delivery			<0.0001
Govt institute (239)	65 (27.1%)	174 (77.9%)	
Private institute (31)	11 (35.4%)	20 (64.6%)	
Home (30)	21 (70%)	9 (30%)	
Mode of delivery			<0.0001
Normal (237)	53 (22.3%)	184 (77.7%)	
CS (42)	29 (69%)	13 (31%)	
Others (21)	15 (71.5%)	6 (28.5%)	
parity			
<2 (209)	78 (37.3%)	131 (62.7%)	
>2 (91)	19 (20.8%)	72 (79.2%)	
Mode of delivery			<0.0001
Normal (237)	53 (22.3%)	184 (77.7%)	
CS (42)	29 (69%)	13 (31%)	
Others (21)	15 (71.5%)	6 (28.5%)	
parity			
<2 (209)	78 (37.3%)	131 (62.7%)	
>2 (91)	19 (20.8%)	72 (79.2%)	

Services were found to be better in OBC category (80.78%) as compared to Other categories ($P < 0.05$) and nuclear families (70.3%) as compared to joint Families (62.8). concerning the educational status of mothers, utilization of Antenatal care services was found to be better in women with higher Educational status (66.6%) as compared to lower educational status (69%). Utilization of ANC services were found to be better in house wives (67.41%) as Comparison to mothers with others occupational status. Utilization of antenatal care services were found to be better in women belonged to upper middle class families (84%) followed by high class families (77%) as compared to lower class families ($P < 0.0005$)

Concerning the place of delivery of Delivery of the women who had delivered their children at govt hospital (77.9%) As compared to CS (31%) ($P < 0.0001$) and women with than two children (79.2%) Were found to be better utilization of antenatal care services as compared to Women with less than two children (62.7%) ($P < 0.005$)

As shown in table-4 out of 97 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.

Table-4 Reasons for inadequate utilization of antenatal services.

Reason for wadequate utilization of antenatal care services	(N=97)%
Unawareness	21 (21.6%)
Unwillingness	22 (22.6%)
Family constrains	10 (10.3%)
living in remote area	26 (26.8%)
Transportation problems	18 (18.5%)

DISCUSSION:

Study was conducted in rural area of UTHC Hajipur of Katihar Medical Collage Katihar, the utilization of antenatal care services among the women having the children of less than one year of age. The study was conducted during the period of June 2018-December 2019.

The most (50%) of the women instudy were in the age group of 26-30 years where Gupta et al in a study found that 58% of women in the age group of 20-26 years [7]. In the present study majority (79.6%) of the study population were Muslim and 69% were illiterate. 8% had attended middle school, 5% had attended matric which is comparable to the findings of Srivastava A, Gupta et al who had reported 37% and 27% of illiterate women respectively [8]. However, this result is in similar with the Coverage Evolution.

Survey report of 2012-13 from Assam [9] this may be due to better of literacy rate amongst the women in Hajipur Katihar district in the present study 79.6% women had delivered in Govt. Hospital followed by 10% had delivered at home. The findings in the present study is found to be better than the similar study conducted by Srivastava revealed that 50.4% A et al had delivered at Government hospital followed 32% at home.

The study conducted by

Arsart MA found that 65.1% currently married women and 46% of recently delivverd women registered in the first trimester of

pregnancy^[10] Saraswathy G in a similar study find the similar result (54%)^[11] In the present study 53% of the women registered in the first trimester and 45% were registered in 2nd

trimester and only 2% of women were registered in 3rd trimester of pregnancy.

In the present study 68.7% of the women had more then three antenatal visits. The findings of this study are bit higher than the Bui TT Ha 53.9% of the women had more than three antenatal visits^[12]

In the present study 90% of the women were immunized with TT. According to study by Khatib et al, all the participants had received tetanus toxoid injection; while according to the study by Shidhaya 68.9% had received tetanus toxoid injection^[13,14]

Utilization of ANC services were found to be better in multigravidae (79.2%) as compared to primigravidae (62.9%). This result is contrast to the findings of Shrivastava A, Verma D and Singh RK which are reported better ANC utilization amongst the primigravidae^[15,16]

CONCLUSION:

The present study indicates that utilization of ANC was associated with women's age, education, educational status, occupation status, religion, place of delivery, mode of delivery and parity. Utilization of ANC services are very importance as it influences the well being of the mother as well as her children. Government shield make efforts for increasing the awareness among the women especially those women living in remote areas for better utilization of the antenatal care services for better and healthy outcome of pregnancy.

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