

A study of Ante Natal Care Service Utilization & Factors Affecting Them in Rural Bidar, Karnataka.

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Abstracts: Aim: To study Ante Natal Care Service (ANC) Utilization & Factors Affecting Them in Rural Bidar, Karnataka. **Objectives:** 1. To study the ANC utilization of study population. 2. To study the factors influencing the utilization of ANC services in study population. **Materials & Method:** A cross-sectional, observational, epidemiological study was carried out among 57 women who recently delivered during last three month in Kamthana PHC of Bidar Taluka, Karnataka. **Results:** Adequate utilization of ANC services was only 61.4%. It means that 22 (38.6%) pregnant women had underutilized or not utilized the services. Education, religion, type of family & head of the family were significantly associated with utilization of ANC services. Main reasons for underutilization of ANC services were financial, obstacles from family members, unavailability of transport facilities & tradition. **Conclusion:** Developing "Friendly Maternal Care" services will improve ANC service utilization. [Parineeta M NJIRM 2014; 5(1) :31-36]

Key Words: ANC, factors affecting ANC service utilization, rural area.

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Introduction: Each year in India, roughly 28 million women experience pregnancy & 26 million have a live birth. Of these, an estimated 67,000 maternal deaths & one million new born deaths occur each year. Thus, pregnancy-related mortality & morbidity continues to have a huge impact on the lives of Indian women.¹

Global maternal Mortality is currently estimated to be 210 per lakh live births. Maternal Mortality Ratio (MMR) in India has shown an appreciable decline from 254/100,000 live births in the year 2004-06 to 212/100,000 live births as per Government of India in Annual report to The people on Health, 2011.² The focus on maternal mortality was sharpened when reduction in maternal mortality became one of the eight goals for development of Millennium Declaration.³ The target for MDG 5 is to reduce MMR by three quarters from 1990 to 2015.⁴

Most maternal deaths & pregnancy complications can be prevented by quality antenatal, natal & post-natal care. Safe motherhood means ensuring that all women receive the care they need to be safe & healthy throughout pregnancy, childbirth & soon after childbirth.⁵

Current utilization of any antenatal care services in India is only 77% (72% in rural areas & 82% in

urban areas).⁶ Despite of existence of many national health programs for improving maternal & child health, maternal mortality & morbidity continues to be at higher side. This may be due to many reasons such as early marriages, illiteracy, & ignorance, lack of health services & unavailability of transport facilities. One of the important reasons for the same is non-acceptance or non-utilization/underutilization of maternal health care services, especially amongst rural population.

For effective implementation of maternal health care related programs, understanding of the factors affecting the utilization of maternal care during pregnancy is required. Therefore, the present study was carried out to find out factors influencing utilization of maternal care services in rural Bidar, Karnataka.

Material and Methods: Present cross sectional, observational, epidemiological study was carried out in BIDAR District having three towns which have maternal mortality rate high in number. The present statistics say that Bidar district has Maternal Mortality Rate of 221 per lakh. Among these three towns, KAMTHANA was chosen. The Primary Health Centre of Kamthana is 24x7 PHC, is 10 kms away from BIDAR Taluka in the NORTH WEST direction. The population of KAMTHANA is 38,400 & PHC covers the total area. Farming is

their major occupation as the land is fertile. The purposive sample was chosen as recently delivered woman in last three months i.e. January, February and March 2011 in the Kamthana primary health centre. The total number of women who delivered in this area was 105 but most of them had come to their maternal home for delivery & had left soon after that. So the interview was carried out only with those women who reside within the confines of the Primary Health Centre Of Kamthana being served by ASHA workers & this number comes out to be 57. The beneficiaries fulfilling inclusive criteria formed the study group. INCLUSION CRITERIA were those who recently delivered i.e. during January, February and March 2011, residing in the area of PHC & those who gave consent to participate in the study. EXCLUSION CRITERIA were recently delivered women but not residing in & around the area of the PRIMARY HEALTH CENTRE of KAMTHANA & the women who have not given the consent to participate in the study.

By taking inclusion and exclusion criteria into consideration total 57 mothers were interviewed using predesigned, pre tested semi-open Performa. Relevant information about the ANC service utilization was recorded along with Sociodemographic data. Adequate utilization of services was considered, if the pregnant women had fulfilled the following criteria.

1. ANC registration at any time
2. Minimum three ANC visits
3. Received required TT injections
4. Consumption of minimum 100 IFA

The data collected was checked for completeness, internal consistency & accuracy. The data was analyzed using SPSS (statistical package of social sciences) version 11.

Results: In the present study, total 57 pregnant women were interviewed out of which 31(54.44%) were between 21-25 years of age. Most of the women were Hindu. 20(35%) of women were illiterate. 31(54.4%) women were living in joint family. Head of the family is one who runs the households, upper hand in taking decisions in these families. In this study less number of families were run by husband i.e. 31.6% where as higher numbers of families were run either by father-in-law or mother-in-law or brother-in-law i.e. who fall

in the category of others. 56.14% women were house wife. Majority of women were belonging to lower socio-economic group (77.5%) according to revised B.G. Prasad's classification [Table 1].

Table 1: Sociodemographic Profile of Pregnant Women

Variable	No.	Percentage
Mother's age		
15-20 yrs	14	24.57
21-25 yrs	31	54.44
26-30 yrs	10	17.54
>30 yrs	02	03.54
Religion		
Hindu	35	61.40
Muslim	17	29.82
Mother's Education		
Illiterate	20	35
Primary	05	8.8
Middle School	14	24.6
High School	18	31.6
TYPE OF FAMILY		
Joint	31	54.4
Nuclear	26	45.6
HEAD OF THE FAMILY		
Husband	18	31.6
Others	39	68.4
Women's Occupation		
House Wife	32	56.14
Laborer	17	29.82
Cultivator	04	7.02
Other	04	7.02
Socioeconomic status		
Class I	01	1.75
Class II	12	21.05
Class III	29	50.87
Class IV	15	26.63
Class V	0	0

A total of 57 mothers were interviewed in the study. 29 (50.9%) pregnant women were registered in the first trimester. The figure increased to 49 (85.9%) if time of registration was ignored. It was observed that least utilized services were ANC checkups & iron folic acid consumption. The utilization rates for these services were 22.8% & 56.1% respectively. 89.5% mother had received two TT injections. Majority (91.2%) of the pregnant women delivered in the hospital & rest at home &

80.7% women had three PNC visits at home by HWs [Table 2].

Table 2 ANC service utilization by mothers (N=57)

ANC services	Yes		No	
	No.	%	No.	%
ANC registration	49	85.9	8	14.1
ANC registration in 1 st trimester	29	50.9	20	49.1
At least three ANC visits	13	22.8	36	77.2
Received required T.T inj.	51	89.5	6	10.5
Received & consumed full course IFA	32	56.1	25	43.9

It was observed that in the present study only 35 (61.4%) pregnant women utilized minimum four ANC services (ANC registration, at least three ANC visits, taken required TT injection & Received & consumed full course IFA). It means that 22 (38.6%) pregnant women had underutilized or not utilized the services. There are many Sociodemographic factors which affect ANC service utilization as shown in [Table 3].

It was observed that adequate utilization of services was significantly associated with religion, education, type of family & head of family of the pregnant mother ($p < 0.05$). But it was not associated with age of mother & socioeconomic status of pregnant mother [Table 3].

Table 3 Socio demographic factors affecting adequate ANC service utilization (minimum four services)

Socio demographic Variables	Utilization (n=35)		Inadequate utilization (n=22)		Total (N=57)
	No.	%	No.	%	
Mother's age					
15-20 yrs	10	71.4	04	28.6	14
21-25 yrs	17	54.8	14	45.2	31
26-30 yrs	07	70	03	30	10
>30 yrs	01	50	01	50	02
$X^2 = 1.58$; df =3; P value= 0.66; Non Significant					
Religion					
Hindu	30	85.7	05	14.3	35
Muslim	05	22.7	17	77.3	22
$X^2 = 20.03$; df =1; P value= 0.000; Significant					

Mother's Education					
Illiterate	05	25	15	75	20
Literate	30	74.1	07	25.9	27
$X^2 = 14.94$; df =1; P value= 0.000; Significant					
Type of family					
Joint	14	45.2	17	54.8	31
Nuclear	21	80.8	05	19.2	26
$X^2 = 6.14$; df =1; P value= 0.013; Significant					
Head of the family					
Husband	17	94.4	01	5.6	18
Other	18	46.2	21	53.8	39
$X^2 = 10.17$; df =1; P value= 0.001; Significant					
Socioeconomic status					
Higher	12		1		13
Lower	23		21		44
$X^2 = 5.20$; df =1; P value= 0.225; Non Significant					

Main reasons for inadequate utilization of ANC services were financial, unavailability of transport facilities, obstacles from family members those who were in joint families & tradition [Table 4].

Table 4 Main reasons for inadequate utilization of ANC services (n=22)

Reasons	No.	%
Financial	10	45.5
Obstacles from family members those who were in joint families	5	22.7
Unavailability of transport facilities	4	18.2
Tradition	3	13.6

DISCUSSION: Present study was carried out in at Kamthana PHC situated in Bidar District of Karnataka state. Total 57 women were interviewed who delivered at KAMTHANA PRIMARY HEALTH CENTRE in last three months i.e. January, February and March 2011 who reside within the confines of the PRIMARY HEALTH CENTRE of KAMTHANA.

Proper antenatal care ensures at the end of pregnancy, healthy mother and a healthy baby. In India ANC services consist of a set of a professional pregnancy checkups, tetanus & other immunizations, supply of iron and folic acid tablets, blood pressure check up & consultation & information regarding delivery methods & services, nutrition & post natal care. Provision of high

quality antenatal care services means early registration (to confirm pregnancy) & check-up of woman at least before twenty weeks of gestation followed by minimum three ANC visits.

The timing of first antenatal care is imperative for the mother's health & for the fetus & it should be done as early as possible in the first trimester. In this study 50.9% women registered in 1st trimester which is lower than DLHS III data of Karnataka.⁷

According to NFHS III data 76% of pregnant women received two doses of TT & 65% received full course of IFA tablets while in our study the majority (89.5%) had received two TT injections while IFA tablet consumption is lower in our study i.e. 56.1%.⁶ Nutritional deficiencies, particularly Iron deficiency anemia are often exacerbated during pregnancy, because of the additional nutrient requirements of foetal growth. All the pregnant women should be motivated by health workers to consume at least 100 tablets of iron and folic acid during pregnancy.

In the present study, adequate ANC utilization rate was 61.4% which was higher compared to DLHS III data of Karnataka.⁷ Reports of coverage evaluation survey carried out throughout sampled districts of India showed more utilization of antenatal care, averaging 75% across the country.⁸

Education plays a significant role in availing both antenatal as well postnatal cares by pregnant women. In this study education of mother was significantly associated with utilization of ANC services. Similar results were observed in a study done by Sachin Mumbare & Rekha Rege on Antenatal care services utilization, delivery practices & factors affecting them in tribal area of North Maharashtra⁹, in a study done by Manish K Singh, JV Singh, N Ahmad, Reema Kumari, A Khanna on Factors influencing utilization of ASHA services under NRHM in relation to Maternal

Health in Rural Lucknow¹⁰ & in a study by Paras Agarwal, M.M Singh, Suneel Garg on Maternal Health Care Utilization Among Women In Urban Slum In Delhi.¹¹

As cultural beliefs and ideas about pregnancy have an influence on women's use of ANC, it would be appropriate to explore how issues in Muslim culture & belief may act as barriers to use of some reproductive healthcare services. In our study it was found that ANC service utilization was low among Muslims as compared to Hindus & it was statistically significant. Similar results were obtained in a study by Mishra V.¹² However contrast results were found in a study by Bhattia & Cleland wherein they mentioned that Muslims were much more likely to seek routine ANC in India.¹³ In contrast, the study by Navaneetham K. & Dharmalingam A in India¹⁴ & study by Overbosch et al.¹⁵ in Ghana found that religion was not a statistically significant predictor of antenatal check-ups.

The present study explores some reasons for inadequate utilization of ANC services. These were financial problems, obstacles from family members, transport problems & tradition.

Many studies identified cost as a barrier for poor people in developing countries. Cost of accessing care (travel cost, service fees, equipment cost) is an important determinant of whether to seek care or not, especially where distances to healthcare facilities are large (WHO 1998).¹⁶

Women's autonomy was positively related to use of ANC in rural north India.¹⁷ Social support from family members significantly affected use of ANC. Older women, especially mothers-in-law did not consider ANC essential during pregnancy & often discouraged their daughters-in-law from attending ANC in rural Bangladesh (Chowdhury et al).¹⁸ Women who felt family to be unsupportive were

twice as unlikely to attend ANC as other women. Similar results were obtained in our study where one of the reasons for inadequate utilization of ANC services was disagreement from family members.

Transportation to distant healthcare facilities may discourage women because of both the time taken & costs involved. Pregnant women may find it difficult to travel in rural areas especially when the condition of the roads is poor. Transportation was one of the reasons for inadequate utilization of ANC services. Similar results were obtained in a study by Bedics.¹⁹

Traditional beliefs and fear are strong in some communities & may explain low ANC utilization which was also found in our study. In some cultures, male involvement has not been recognized as important in reproductive health. Men generally do not accompany their partners to ANC or attend the birth of their children.²⁰

Conclusion: Health education to all pregnant women by Health workers regarding Antenatal care & making them aware about availability of government services & schemes, will definitely improve utilization of Ante Natal Care services. For this better orientation & ongoing training programs are to be designed which would help the Health workers to understand the needs of the pregnant women and take necessary actions to meet those needs & also build that rapport among themselves for "Friendly Maternal Care" services.

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