

## AN EVALUATION OF ANTENATAL CARE PROVIDED AT A COMMUNITY HEALTH CENTRE IN JAUNPUR DISTRICT, UTTAR PRADESH: A CROSS SECTIONAL STUDY

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### ABSTRACT

**Background:** Antenatal care is the systemic medical supervision of women during pregnancy. Its aim is to preserve the physiological aspect of pregnancy and labour and to prevent or detect, as early as possible, all that is pathological. Early diagnosis during pregnancy can prevent maternal ill health, injury, maternal mortality, infant mortality and morbidity. **Methodology:** It was thus decided to carry out a community based longitudinal study in an urban area at Community health centre, Shahganj, Jaunpur district to observe the effects of the time of antenatal registration, number of antenatal visits, iron folic acid supplementation on the birth weight of the new born. A total of 150 cases were studied who attended the hospital and the information was collected using a pre-tested questionnaire. **Results:** Out of total 150 pregnant females studied, low birth weight was found in 18.2%. The birth weight of the infant was seen to improve significantly after increasing the number of antenatal visits. Women who had no iron and folic acid supplementation had a higher percentage of low birth weight babies. Lower haemoglobin levels were found to be significantly associated with low birth weight.

### INTRODUCTION

Women's health and behavior in pregnancy affect her baby. A poor diet, smoking, intake of alcohol, certain drugs and severe illness can hold back the baby's development. Hence, during pregnancy, regular checkups with the doctor are essential to ensure your health and health of your baby. This is antenatal care and it is absolutely necessary because it makes sure that you and your baby are fit and healthy.

Antenatal checkups prevent most medical problems or help in early detection like weight gain, pre-eclampsia, gestational diabetes or urinary tract infection. After conformation of pregnancy the woman must be registered and at least 3 ANC check-ups should be ensured for the progress of pregnancy, assessment of risk factors and ongoing assessment of fetal well being and complications.

ANC consists of obstetric history, which includes age of woman and number of years since marriage, details on personal history and medical history (any systemic illness, number of previous pregnancy or abortion). Examination includes recording of blood pressure, height and weight measurement, screening for anaemia as well as abdominal examination to identify fetal presentation

to detect proper growth and development of the baby including any IUGR/ multiple births.

### MATERIAL AND METHODS

The study was conducted at Community Health Centre, Shahganj, District Jaunpur for six months i.e. June to December 2014. A mother clinic was started at the CHC premises and 150 ante natal mothers were registered at the clinic and their records were maintained till term. This clinic offered the standard services of an ante natal clinic such as examination by a doctor, urine examination, hemoglobin determination, patient education, distribution of iron tablets, treatment of any medical problem when detected and immunization against tetanus. Over and above these the clinic concentrated on various aspects of nutrition.

At their first visit then women were shown mounted specimens of fetuses of different gestational ages; the causes of foetal death at various stages of pregnancy were discussed. They were told about the importance of frequent ante natal visits and importance of various examinations like blood and urine tests.

The husbands of all the registered pregnant women were encouraged to come to the clinic at their convenience and meet the doctor. The performance of the clinic was assessed by comparing the following parameters of the woman attending the clinic. The number of ante natal visits, the period of gestation at the first visit, hemoglobin at the first visit and term, the outcome of pregnancy.

## RESULTS

Out of 150 registered patients majority (70%) were Hindus and rest were Muslims. The average per capita monthly income of 68.6% families was less than 100 (Table-1).

Age distribution shows that most of the patients 62 were in between 20-25 yrs. Only 4 patients were in the age group 36-40 years (Table-2). Majority of the females were educated upto high school (44%). About 11% females were illiterate (Table-3).

The prevalence of low birth weight was found to be 18.2 %. The birth weight of the infants was seen to improve significantly with more number of ante natal visits (Table-4).

**Table-1:** Distribution of patients according to religion (n=150)

Religion	No.	%
Hindu	105	70.0
Muslim	45	30.0
<b>Total</b>	<b>150</b>	<b>100.0</b>

**Table-2:** Distribution according to age group of the patients

Age groups (yrs)	No.	%
20-25	62	41.33
26-30	78	52.0
31-35	06	4.0
36-40	04	2.66

**Table-3:** Shows the distribution according to the educational status.

Educational Status	No.	%
Graduate	09	6.0
Intermediate	33	22.0
High School	66	44.0
Middle	15	10
Primary School or Literate	16	10.67
Illiterate	11	7.33

**Table-4:** Period of antenatal registration and birth weight of new born

Period of gestation in weeks	Antenatal registration		Birth weight > 2.5 kg		Birth weight < 2.5 kg	
	No.	%	No.	%	No.	%
< 12	26	17.33	17	65.3	9	34.6
13-24	79	52.66	69	87.3	10	12.65
>25	45	30.0	37	82.2	8	17.8

**Table-5:** Relationship of number of ANC visits to birth weight of new borns.

No of ANC visits	No.	Birth weight > 2.5 kg		Birth weight < 2.5 kg	
		No.	%	No.	%
1-4	29	22	75.86	07	24.13
5-10	85	60	70.58	15	29.41
>10	36	31	86.11	05	13.89

The birth weight of the infant was seen to improve significantly with number of ante natal visits. This suggests that regular ANC visits, with early ANC registration has a beneficial effect on the birth weight probably due to better ante natal care.

**Table-6:** Relationship of iron and folic acid supplementation on the birth weight of new borns

No of days of supplementation	No.	Birth weight > 2.5 kg		Birth weight < 2.5 kg	
		No.	%	No.	%
<100 days	124	108	87.9	16	12.9
>100 days	26	21	57.69	05	19.2

Women who had no iron and folic acid supplementation had a higher percentage of low birth weight babies. The percentage of low birth weight babies decreases with increase in supplementation. The prevalence of low birth weight in woman with less than 100 days supplementation was 12.9% while women who had taken supplements for more than 100 days the incidence was 19.2% , suggesting that supplements should be given at least for 3 months to have a positive result on the birth weight.

**Table-7:** Relationship of haemoglobin of pregnant women to birth weight of the newborn.

Hb (gm%)	No.	%	Birth weight > 2.5 kg	Birth weight < 2.5 kg
			No.	No.
<8.0	23	15.4	18	06
8-10	102	68.0	76	14
>10	25	16.6	17	07

The lower hemoglobin levels were found to be significantly associated with low birth weight.

## CONCLUSION

Antenatal care appears to have a strong beneficial effect on the birth weight of the new born. It was observed that early antenatal care registration and more number of ante natal care visits were significantly associated with better weight of the new born. Women with more than 3 months of supplementation showed a lower incidence of low birth weight. At present and for many years to come the general practitioner must play a greater role in this regard.

The study brings out what can be done by meticulous antenatal care given even in largely illiterate and low socio economic section of the population. If services were delivered based upon a broader concept of women's health and with a view to empowering women to look after their own health needs, there would be ultimately reduction in the high levels of maternal and neonatal mortality. The ultimate bonus would be healthier families and all the attending benefits resulting from this desirable achievement.

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