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A study on compliance of antenatal care among the mothers attending immunisation clinic of Murshidabad Medical College and Hospital, West Bengal

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Abstract: ***Introduction:*** *Maternal death is more common in developing countries than developing countries. Though the death rate is declining, there are new targets set to accelerate the decline. One of the main way to reduce the maternal death is through proper Antenatal care.*
Objective: *To determine number of antenatal visits and to assess the knowledge and practice regarding antenatal care among mothers.*
Methodology: *A cross sectional study was conducted in Murshidabad Medical College and Hospital, of West Bengal state with the sample of 154 using pretested questionnaire.*
Results: *Out of 154 participants, awareness about antenatal care is present for 35.7% and 90.26% had more than 3 antenatal visit. Around 40.9% had awareness about IFA tablets and TT immunisation. Around 41.6% had gender preference and 27.3% had preference for male child.*
Conclusion: *Community awareness should be created to improve early registration and antenatal care.*
Keywords:*Antenatal care, IFA tablets, TT immunisation, Gender preference, Family planning*

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I. Introduction

Pregnancy associated death remain high in developing countries. According to WHO, Giving quality antenatal care will reduce pregnancy related diseases and deaths and thus protecting both antenatal mother and the baby.[1]Along with the medical care including screening and preventive measures, during antenatal visit, the mother can receive emotional support and advice. Though the pregnancy related death have been dropped since 1990, it still remains high. Daily at least 830 women die globally from pregnancy related preventable death and 99% of them are from developing countries[2]. WHO also reported that a developing country women dying from the pregnancy related death is 33 times higher during her lifetime than those who are in developed countries[3]Though the death is declining, to accelerate the decline, a new target has been set under Sustainable Development Goal which is to reduce the maternal mortality ratio globally to less than 70 per 1 lakh live births. One of the major challenges to the public health system is the maternal healthcare. One of the main way to reduce is by getting proper antenatal care. Many studies have shown the positive relationship between maternal outcomes and antenatal care.[6]Global estimates indicate that only half of all pregnant women receive recommended amount of antenatal care. Mothers of lower socio-economic status consider visiting antenatal clinic as the mean loss of daily wages.WHO's one of the main priority is to improve the maternal health.On recognising the importance of antenatal care, WHO recommended at least 4 antenatal visit. Antenatal care will give opportunity to identify high risk mothers, to monitor and support them. Many studies have showed the relationship between Antenatal care and pregnancy outcomes.As of 2015, 3, 03,000 women died of maternal cause globally[3.] In India as o 2015, the MMR was 174 per 1 lakh live birth[4]. According to NFHS 4 only 21% had full antenatal visit in India.[5]

The objective of the study is to determine number of antenatal visits and to assess the knowledge and practice regarding antenatal care among mothers.

II. Material And Methods:

2.1 Study type and setting: The study was a cross sectional study conducted in Murshidabad Medical College and Hospital, of West Bengal state.

2.2 Study duration: The study was carried out for a period of one month (April - May 2017)

2.3 Sampling and Study population: The mothers attending immunisation clinic for children atMurshidabad Medical College and Hospital was included in the study.A total of 154 mothers attended the clinic during the study period.

2.4 Data collection procedure: After obtaining written informed consent, the data was collected by interviewing all the mothers who were willing to participate in the study using a semi-structured questionnaire.

2.5 Study tool: A pretested, validated study questionnaire was used.The questionnaire includedsocio-demographic profile and knowledge about antenatal visits, tetanus immunisation, nutritional factors, contraception.

2.6 Statistical Analysis:Data was entered in Microsoft Excel and analysed with Statistical Package for Social Sciences (SPSS IBM) version 21.0. Data entered into excel sheet was checked at regular intervals and validation was done. The qualitative variables are described in of proportions and quantitative variables are described in mean, range and standard deviation measures.

2.7 Ethical consideration and confidentiality: Before start of the study, institutional ethical committee approval was obtained. Study participant's confidentiality was maintained in all the phases of the study.

III. Results

Totally 154 mothers were included in the study. Majority of study participants were in the age group of 22-25 (41.56%). Mean (SD) of age of mothers was 26 (±11) years.

TABLE 1: Profile of study participants (N=154)

S.No.	Socio-demographic profile	N	%
1.	**Age group(in years)**		
	18-21	63	40.9
	22-25	64	41.56
	26-29	20	12.99
	>= 30	7	4.55
2.	**Education**		
	Illiterate	13	8.4
	Primary	4	2.6
	Middle	97	63
	Higher secondary	26	16.9
	Graduate and above	14	9.1
3	**Socioeconomic Status***		
	Upper class	2	16.2
	Upper middle class	46	29.9
	Lower middle class	34	22.1
	Upper lower class	38	24.7
	Lower class	11	7.1
4	**Number of children**		
	1 child	90	58.4
	2 children	44	28.6
	3 children	17	11
	4 children	3	1.9
5	**Place of Delivery**		
	Hospital	149	96.8
	Home	5	3.2

*According to BG Prasad classification

TABLE 2 Distribution according to the knowledge of the study participants (N=154)

On assessing the knowledge regarding antenatal care, only 40.9% had the knowledge about the Iron and Folic Acid (IFA) tablets and Tetanus Toxoid (TT) immunisation.

S.no.	Variables	N	%
1	**Knowledge regarding antenatal visit**		
	Yes	55	35.7
	No	99	64.3
2	**IFA tablets should be taken during pregnancy**		
	Yes	63	40.9
	No	91	59.1
3	**Knowledge about TT immunization**		

	Yes No	63 91	40.9 59.1
4	**Extra calorie required during pregnancy** Yes No	 99 55	 64.29 35.71
5	**Adequate sleeping/ rest required during pregnancy** Yes No	 60 94	 38.96 61.04
6	**Substance abuse during pregnancy is harmful** Yes No	 101 53	 65.58 34.42
7	**Advice on family planning during postnatal visit** Given Not given	 77 77	 50 50

TABLE 3: Distribution of study participants according practice during antenatal visit (N=154)

S no	Variables	N	%
1	**Antenatal visits made** <3 >=3	 15 139	 9.74 90.26
2	**Number of IFA tablets taken during pregnancy** 0 1-99 >100	 9 59 86	 5.8 38.3 55.8
3	**Number of TT doses taken** <2 2	 16 138	 10.4 89.6
4	**Extra calories taken during pregnancy** Yes No	 73 81	 47.4 52.6
5	**Sleep duration at night** <8hrs >=8 hrs	 108 46	 70.11 29.9
6	**Sleep duration at noon** <2 hrs >=2 hrs	 94 60	 61 39
7	**Substance abusepresent** Yes No	 4 150	 2.6 97.4
8	**Currently using family planning methods** Yes No	 90 64	 58.44 41.56

TABLE 4: Distribution of study participants according to preferences to gender: (N=154)

S. No.	Gender preference	N	%
1.	**Gender preference** Yes No	 64 90	 41.6 58.4
2.	**Preference to have** Male child Female child	 42 22	 27.3 14.3

IV. Discussion

The present study conducted at the Immunisation clinic of Murshidabad Medical College and Hospital included 154 subjects. Most of the participants were between the age group of 22-25 years.According to a study done by Mithra et al in urban area of South India around 73.2 % were aware of the importance of IFA tablets during pregnancy and only 58.7 % consumed all the IFA tablets given to them.[7]In our study only 40.9% knew about the importance of IFA tablets and 55.8% had more than 100 tablets. A similar study done by ParthaPratim pal et al in a rural area of India, showed that around 60 % consumed the IFA tablets regularly and adequately.[8]Due to the increased demand, consumption of IFA tablets during pregnancy reduces the Iron deficiency anaemia among pregnant women and thereby reducing anaemia related death during pregnancy.A study done by N Chandhiok et al in rural areas of India, showed that among those who had antenatal care, 91.3% had awareness about the importance of TT immunisation during pregnancy.[9]But in our study only 40.9 % had the awareness about TT. A study done by Mathews et al in rural Karnataka, showed around 97.5 had TT administered.[10]In our study around 89.6% had 2 doses of TT. Neonatal tetanus is more common in less than 6 months age group. Providing tetanus vaccination during pregnancy reduces this.Due to the changing hormone levels, fatigue and sleep problems are more common during pregnancy. It is thus necessary to adequate rest and

sleep during pregnancy for positive outcomes. In our study only 38.96% were aware about the importance of sleep and rest during pregnancy. Substance abuse such as tobacco, caffeine have found to be associated with low birth weight babies, preterm babies and birth anomalies. In our study around 65.6% had awareness that addiction is harmful during pregnancy.

A study done by N Kumar et al in India showed that around 39.4% had a gender preference and around 55.7% had male preference.[11]A study done in a tertiary care hospital in Goa showed that around 23.1 % had a male preference.[12] Similarly in our study around 41.6 % had gender preference and 27% had male preference.

V. Conclusion

Mother and Child is considered as one unit. Utilisation of proper utilisation of antenatal care reduces both maternal and neonatal mortality. A healthy mother gives birth to a healthy child. There is a need to register early and proper antenatal visits which should be emphasized by enhancing community awareness.

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