



ORIGINAL RESEARCH PAPER

Preventive & Social Medicine

ASSESSMENT OF UTILIZATION OF ANTE-NATAL SERVICES IN FIELD PRACTICE AREA OF RURAL HEALTHCENTRES OF AIIMS RISHIKESH, UTTARAKHAND

KEY WORDS:

Dr Ankita Rahul	Junior Resident, Department of Community and Family Medicine, AIIMS Rishikesh
Dr Mahendra Singh*	Associate Professor, Department of Community and Family Medicine, AIIMS Rishikesh*Corresponding Author
Dr Pragya Pandey	Junior Resident, Department of Community and Family Medicine, AIIMS Rishikesh
Dr. Prakash Kumar	Junior Resident, Department of Community and Family Medicine, AIIMS Rishikesh
Dr Abhishek Sadasivan	Junior Resident, Department of Community and Family Medicine, AIIMS Rishikesh

ABSTRACT

INTRODUCTION The process of childbearing needs to be given special attention, as it affects the overall health, especially the reproductive health of the woman, and her new born. The place of delivery takes place is also important aspect of reproductive health care. Poor access and utilization of antenatal and other health services continue to contribute to high maternal mortality rate along with other socioeconomic factors. **METHODS** A Community-based cross-sectional study was conducted in the field practice area of Rural health centres (PHC Raiwala and PHC Thano) of AIIMS Rishikesh. Study was conducted for one and a half year. All pregnant women who were residing in PHC Thano & PHC Raiwala in Calendar year 2020. **RESULTS** Majority of the mothers were aged between 25-29 years (45.3%) and were Hindus (90.91%) by religion. In our study, only 11 (4.4%) women had utilized full ANC during pregnancy. early registration was done only by 54.8 percent of women, about 56 percent female took only upto 60 tablets of IFA, blood test was done 80 percent of female

INTRODUCTION

Maternal and child health (MCH) services plays important role in minimizing the risks related to pregnancy and childbirth. Maternal and child mortality rates cannot be healed by a single intervention, previous studies show that providing skilled assistance at the time of delivery, postnatal intranatal and antenatal care, and putting a strong healthcare system in place can help in reducing maternal and child deaths²¹

Despite continuous work to reduce maternal mortality burden globally, it has remained an ongoing tragedy in many low-income countries, especially in Africa . Africa has the highest maternal deaths in the world and sub-Saharan Africa contributes 1 in every 16 pregnant women compared with 1 in 2800 in the developed countries²⁰

Majority of the maternal deaths associated with pregnancy complications and child birth result from lack of access to and receipt of routine health care and emergency health care services and this is particularly so in sub-Saharan and south Asian countries.¹⁰

An estimated 90% of maternal deaths can be prevented with timely medical intervention, ensuring quick access to appropriate services when obstetric emergencies arise is one of the most important reasons of safe motherhood in developing countries¹¹

In India, the most important barrier in the utilization of MHC services are the low educational status of women and poor economic condition, for example, in Kerala degree of utilization of MHC services are very high, wherein, Bihar, Chhattisgarh and Rajasthan have lower utilization of MHC services compared to the Indian average.¹²

Mother who had check-up in first trimester in urban area is 63.1 % whereas in rural area it is 48.7 % with total coverage of the state is 53.5 by NFHS-4, which is 10 % more than NFHS-3.

Institutional delivery doubled in ten year according to NFHS-4 data. Mother who received financial assistance under JSY (Janani Suraksha Yojana) are 54.2 %in rural area of Uttarakhand.⁹

AIIMS Rishikesh has adopted two rural health centres: PHC Raiwala and PHC Thano to serve rural population of Uttarakhand. One of the important components of these health centres have to provide “Maternal Health Services”.

The present study was conducted to know the utilization of antenatal,” in rural area and to know the factors affecting the utilization of these services.

Methodology:

It was a community based cross sectional study conducted in rural health centres (PHC Raiwala and PHC Thano) of AIIMS Rishikesh for a period of 18 months. All pregnant women who gave consent and delivered in calander year 2020 residing in PHC Thano & Raiwala for the past 1 year were included in the study. A semi structured questionnaire which contained three sections i.e. socio-demographic section, structured checklist for utilization of MHS and structured checklist for factors affecting utilization of MHS. Total population of Raiwala is approximately 33,000 and Thano is 26,000. In the study we have to choose 250 pregnant women, As per PPS, 140 and 110 pregnant women who delivered in last one year were chosen from PHC Raiwala and PHC Thano respectively. Data was analysed by using SPSS version 24.

Results:

In our study, approx 45.3% of women's were in the 25-29 years age group and Mean age of women were 23.70±3.17 years. 46.6% pregnant women were belong to joint family and 53.4% were belong to nuclear family. Most of the women (225, 90%) were Hindu by religion, 17(16.8%) were Muslim. about 12.8% women are illiterate. 42 (19.8%) of the women had studied up to middle class and 51 (22.5%) were completed graduation and above. Most of the women 239

(96.2%) were housewives. Only 11 (3.8%) women were working. Majority of the women belonged Middle and Lower middle to socioeconomic class (36.4% and 23.6% respectively).

In our study, majority of women 102 (40.6%) were primi-para followed by 100 (40.2%) were 2nd para. Only 9 (3.2%) were grand multiparous (parity ≥4). In our study, it is observed that mean age at marriage was 21.79±2.7 years. Out of 250, 3 (1.2%) women were married before the legal age of 18 years. Majority of women 168 (67.2%) had their first pregnancy between 20-24 years of age and 12 (4.8%) women had first time pregnant in their teenage (15-19 years) as shown in table 1.

In our study, 85 (33.5%) women had four or more antenatal visits. 35 (14.1%) women had two and 116 (46.8%) women had three antenatal visit. In our study, 100% of women registered their pregnancy in any health facility. 54.8% of them were registered their pregnancy in 1st trimester. In our present study, only 11 (2.9%) women had taken 100 or more IFA tablets. In our study weight were taken in 223(89.2%) women, height measurement was taken in only (29.2%) women. In our study it was found that only haemoglobin and routine urine examination was done during pregnancy.

Table 1. Maternal Characteristics among study participants.

Maternal Characteristics		Frequency	Percentage
Parity	1	102	40.6
	2	100	40.2
	3	39	15.7
	4	9	3.2
Age at marriage	15-18	17	6.8
	19-21	108	43.2
	>21	125	50.0
Age at first pregnancy	15-19	12	4.8
	20-24	168	67.2
	25-29	63	25.2
	≥30	7	2.8

Table 2. Utilization of Maternal Health Services among study participants.

UTILIZATION OF MHS		Frequency	Percentage
Number of Antenatal visit	0	3	1.2
	1	11	4.4
	2	35	14.1
	3	116	46.8
	4	85	33.5
Time of Antenatal registration	1 st trimester	137	54.8
	2 nd Trimester	107	42.8
	3 rd Trimester	6	2.4
Number of IFA consumed	Nil	11	4.4
	< 30	59	23.6
	30-59	140	56.0
	60-99	29	13.2
	≥ 100	11	2.9
CLINICAL EXAMINATION			
Weight measurement	Done	223	89.2
	Not done	27	9.6
Height measurement	Done	73	29.2
	Not done	117	70.8
Blood pressure	Done	191	76.4
	Not done	59	23.6

Abdominal examination	Done	72	28.8
	Not done	178	71.2
INVESTIGATION			
Hemoglobin	Done	200	80
	Not done	50	20
Routine Urine examination	Done	72	28.8
	Not done	178	71.2
Others (HIV, VDRL, TSH)	Done	0	0
	Not done	250	100
ANTENATAL ADVICE			
Diet	Received	179	71.6
	Not received	71	28.4
Danger sign	Received	105	42.2
	Not received	144	28.4
Intra-natal care	Received	126	50.6
	Not received	123	49.4
Families planning	Received	74	29.6
	Not received	176	70.4

In our study family planning advice was given in only 29.6% women, advice regarding danger sign were given in 42.2% women.

Table 3 Association of barriers in utilization of antenatal services.

Barriers	ANC Registration in first trimester		P value
	Yes (%)	No (%)	
Literacy	Yes	56.8	0.536
	No	50	
Type of families	Joint	57.3	0.538
	Nuclear	53.4	
Parity	1	50.5	0.126
	2	60.4	
	3	61.5	
	4	25	
	ANC visit		
	<4 (%)	≥4 (%)	
Socioeconomic class	Upper	43.7	0.064
	Upper middle	57.1	
	Middle	63	
	Lower middle	77.6	
	Lower	67.9	
Parity	1	61.4	0.243
	2	63.4	
	3	76.9	
	4	87.5	

The study revealed that, the time of antenatal registration was not seen to be affected by the literacy, type of families and ANC registration in first trimester have no statistical significant relation, it was found that that as parity increase they were in a practice of delaying in antenatal registration but it was not statistically significant, it was observed that as the socioeconomic status increase women who had ≥4 ANC visit increase but it was not statistically significant, it was seen that increase is parity and ≥4 ANC visit is not statistically significant.

Discussion

In the present study majority (62.12%) of the mothers belonged to 20 - 24 years of age group (were 23.70±3.17 years.), were Hindus 225 (90%), and housewives 239 (96.2%).

Most of the mothers belonged to III and IV (36.4% and 23.6% respectively) socioeconomic class according to modified B. J. Prasad classification 2020 and came from (46.6%) joint families. The mean age of the mothers of the present study was almost similar to the study conducted by Paudel et al (2014)²⁷ (24.14±3.21 years). Studies conducted by Malik et al (2013)²⁹, Paudel et al (2014)²⁷ and Metgud et al (2009)³⁰ also observed that majority of the mothers (77.8%, 54.6%, and 53.08% respectively) belonged to 20 - 24 years age group.

In our study 30 female were illiterate (12.8% of females had never attended school, and only 20.4% had completed 10 or less years of education), but the literacy rate is higher than the data of NFHS-4

(female literacy rate of 76.5% in uttarakhand). This signifies that a lot more is to be done to increase the female literacy rate as education increases awareness and equips the female to take better care of herself and her family.

It was observed in the present study that in spite of 100% antenatal registration and 97.98% tetanus toxoid coverage the proportion of mothers who had full antenatal check-up (minimum 4 antenatal visits, minimum one TT and minimum 100 IFA tablets taken during pregnancy) remained low (26.26%). The main reason for slow rate of full ANC was the low performance in IFA consumption (deficit of 97%) and limited number of antenatal visits. In DLHS12-13⁴⁹ where full antenatal coverage was 17.1% for Uttarakhand and for 30.3%. Dehradun Here too in this study main reason for poor ANC coverage was the low percentage of IFA consumption (Uttarakhand: 21.4% and Dehradun: 32.4%) and limited ANC visits.

Conclusion

The results of the present study revealed that utilization of ANS was poor as majority of them had not received full antenatal care. The prime reason for non/partial utilization of ans was noncompliance of IFA tablets and lack of knowledge about the importance of all the four antenatal visits. The impression about ANC provider from this study was that care from government source was approached more often than from private services.

It was happy to note that majority of the mothers had institutional delivery, which was probably due to the introduction of JSY. ANMs/ Nurses conducted most of the deliveries.

Thus, there is a lot of scope for improvement of services, which would lead to improvement of the status of maternal health ultimately ensuring a healthy mother and child.

RECOMMENDATION

1. Promotion of female literacy and empowerment will improve utilization of MHS.
2. Information, Education and Communication (IEC) activities should be conducted to educate the mothers to create awareness about various facilities available.
3. Holding out-reach sessions on MCH once in every fortnight on a fixed day is essential to improve coverage of services, especially in remote areas and difficult areas.
4. Strengthening of the infrastructure at the sub-centre level will help in increasing institutional deliveries.
5. Importance of antenatal, intra-natal and PNC should be emphasized to mothers through mothers meeting, meetings of Mahila Swasthya Sangha and Mahila Mandal at village level.
6. All practitioners whether allopathic or AYUSH should be

trained in maternal health.

7. Measures to improve accessibility and transportation to health facilities in remote areas must be taken with the help of ambulance and private vehicle.

8. Counseling for early registration should also get priorities, as it would be the first step for sufficient ANC visits to the health facility.

9. The awareness of beneficiaries about JSY is only limited to cash incentive for institutional deliveries. But they are not aware of other aspects of the scheme like complete antenatal checkup, provision of iron and folic acid tablets, Tetanus toxoid immunization, post natal care and exclusive breast feeding. It is required to create better awareness regarding all aspects of JSY so that people may avail all the benefits of the scheme, which will certainly help in reducing maternal as well as infant morbidity and mortality.

LIMITATIONS

- Since the study being the cross sectional, only associations can be examined, causal relationship cannot be.
- The quantitative assessment of service utilization doesn't comment on the quality of services available and satisfaction/feedback of client.
- Few other variables which could have potentially influence the pattern of MHC utilization were not taken into account like distance of health facility from residence of participants etc.