



STUDY TO ASSESS THE CHARACTERISTICS OF PMSMA/ HRP DAY BENEFICIARIES VISITING A RURAL HEALTH CENTRE OF MEERUT

Community Medicine

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ABSTRACT

Pregnancies are usually uneventful. In India, many women don't give importance to early antenatal care leading to undetected high risk pregnancies (HRP). The impact of separate HRP days help antenatal women identify high risk signs early thereby helping in reducing delays in maternal care. This observational study was conducted to assess various characteristics of beneficiaries visiting rural health centre of Meerut on HRP Days making a sample of 183 antenatal women. It was found that 90.70% of antenatal women attending HRP days were high risk pregnancies. Anemia was most common (81.4%) cause of high risk pregnancy. Number of pregnancies and abortions were significantly associated with marriage age of women. Detecting high risk pregnancies during HRP days is an effective measure. Initiatives like PMSMA can help detect avoidable high risk signs like anemia and can go long way in reducing maternal mortality ratio.

KEYWORDS

High Risk Pregnancy, PMSMA/HRP Day, Anemia, Antenatal, MCP, MCTS

INTRODUCTION

Every women need health care and attention during pregnancy. This care helps pregnant women to be healthier and have fewer problems in childbirth. Prenatal care should come from the woman herself, from her family and the community, and from a midwife. Most midwives know that women who have good care during pregnancy are more likely to have safer births and healthier babies (1).

The central purpose of antenatal care is to identify "high risk" cases as early as possible from a large group of antenatal mothers and arrange for them skilled care, while continuing to provide appropriate care for all mothers. These cases comprises- elderly primi, short statured primi, malpresentation, (APH) Ante Partum Hemorrhage / threatened abortion, preeclampsia & eclampsia, anemia, twins/ hydramnios, previous still birth/ IUD (Intra Uterine Death)/ MRP (Manual Removal of Placenta), grand multipara, prolonged pregnancy, precious cesarean/ instrumental delivery, associated with general/ systemic diseases, infertility treatment and three or more spontaneous continuous abortions (2). The increasing number of births has a deleterious effect on the health along with nutritional problems of both mother and child (3).

The Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA) is thus being introduced to ensure quality Antenatal care to over 3 crore pregnant women in the country. Under this campaign, a minimum package of antenatal care services are provided to the beneficiaries on the 9th day/ HRP Day (High Risk Pregnancy) of every month at the Pradhan Mantri Surakshit Matritva Clinics to ensure that every pregnant woman receives at least one checkup in the 2nd or 3rd trimester of pregnancy by a doctor. Identification and line-listing of high risk pregnancies based on obstetric/ medical history and existing clinical conditions are done with special emphasis given on early diagnosis, adequate and appropriate management of women with malnutrition conditions like Anemia as these pregnancies need extra and specialized care (4).

As India resolved towards achieving the Sustainable Development Goals (SDGs), steps in reducing maternal mortality becomes an important leading edge. Most maternal deaths can be prevented by providing antenatal care during pregnancy and skilled care during childbirth (5, 6). In the light of this knowledge, PMSMA plays an important role as an add on government initiative to our current mainstream programme under MCH. Hence, the present study was conducted to find out the characteristics and utilization pattern by female coming to rural health center of Meerut during HRP days.

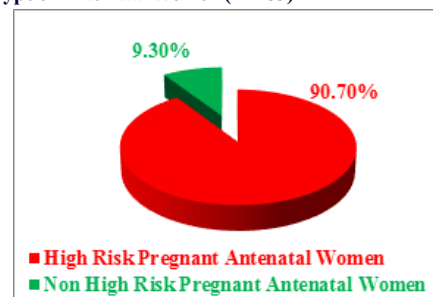
MATERIAL AND METHODS

The present observational study was conducted when the principal investigator had volunteered to participate in the HRP days being organized at a Rural Health Center in Meerut. Data was collected

through pre-structured, pre-tested and pre-validated interview schedule after approval from ethical committee of medical college, permission from MOIC of the center, written consent from all the participants after explaining the purpose of study and ensuring the confidentiality of information. As total enumeration was practiced, all the eligible, willing and consenting HRP Day beneficiaries were included in the study making a sample of 183. All the antenatal women in their first trimester were excluded as PMSMA focuses on antenatal women in 2nd and 3rd trimester of pregnancy. The collected data was entered in Microsoft excel and analyzed using SPSS software version 19.0.

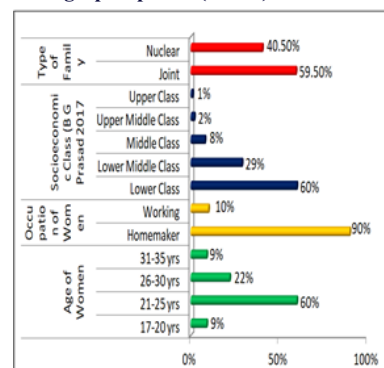
RESULTS

Fig. 1: Type of Antenatal Women (n=183)



It was observed that from all the antenatal women visiting the rural health center for HRP day under PMSMA, 90.7% were actually high risk pregnancies and 9.3% of them were not categorized as under high risk pregnancy indicating that most of the antenatal women were sieved at ground level itself by health workers in an appropriate way distinguishing high risk and non high risk pregnancy (Fig.2).

Fig 2: Socio demographic profile (n=183)



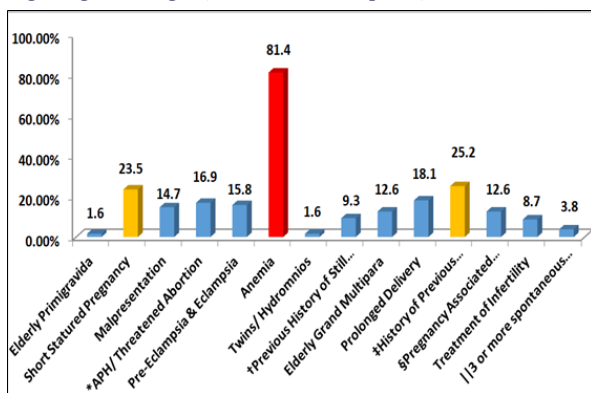
Majority of antenatal women in the present study were in the age group of 21-25 years (60%). The least were from the age group of 17-20 years and 31-35 years (9% each). Also, majority of them were homemakers (90%), had joint family (59.5%) and belonged to lower socio economic class according to B G Prasad 2017 socioeconomic class (Fig.1).

Table 1 is illustrating about HRP Day Characteristics and utilization services of antenatal women. Among the characteristics, majority of the antenatal women (80.8%) were accompanied by ASHA on HRP Days. HRP Day information was disseminated by ASHA to around half (53%) of antenatal women. There were more multigravid antenatal women (60.1%) with maximum having two or less children. Among the utilization of services, most of the HRP Day beneficiaries visited the center to take IFA (Iron and Folic Acid) tablets (80.3%) and about half of them for Tetanus Toxoid (TT1 and TT2) injection (55.7%). Although 69.9% of the HRP Day beneficiaries had MCP (Maternal and Child Protection) card but only 19.7% had MCTS (Maternal and Child Tracking System) number.

Table 1: Other Characteristics and Utilization of services (n=183)

Characteristics	Sub Category	Frequency	%
Female Health Worker Accompanied	ASHA	148	80.80%
	No one	35	19.20%
HRP days information given by	Family/ On her Own	62	33.8%
	ASHA	97	53.0%
	Neighbor/ Friends/Other	24	13.2%
No. of Pregnancy	Primigravida	44	24.0%
	Multigravida	110	60.1%
	Grand multigravida	29	15.8
No. of Abortions	0	120	65.6%
	<3	54	29.5%
	≥3	9	4.9%
No. of Children	0	73	39.9%
	1-2	67	36.6%
	≥3	43	23.5%
Utilization of Services			
Purpose of Visit (n=183 for each response)	Regular Check up	100	54.60%
	TT1 & TT2	102	55.70%
	IFA tablets	147	80.30%
	Inv/ Test	66	36.10%
MCP Card	Yes	128	69.9%
	No	55	30.1%
MCTS Number	Yes	36	19.7%
	No	147	80.3%

Fig.3 High Risk Signs (n=183 for each response)



*APH- Ante Partum Hemorrhage †Previous History of Still Birth/Intra Uterine Death/Manual Removal of Placenta ‡History of Previous Cesarean Section/ Instrumental Delivery §Pregnancy Associated with General Diseases ||3 or more spontaneous Consecutive Abortion.

Fig. 3 is representing different types of HRP Day Beneficiaries. Anemia was the most common High Risk Sign found in 81.4% of the HRP Day beneficiaries. History of Previous Cesarean Section or Instrumental Delivery (25.2%) and Short Statured Primigravida (23.5%) was among the other common HRP signs. Elderly Primigravida (1.6%) was the least common HRP sign observed among the beneficiaries visited the rural health center in the present study.

Table 2: Association of number of pregnancy with age of women at marriage (n=183)

Age at Marriage (years)	No. of Pregnancy			Total
	Primi-gravida	Multi-gravida	Grandmulti-gravida	
	No. (%)	No. (%)	No. (%)	No. (%)
< 18	9 (34.6)	9 (34.6)	8 (30.8)	26 (100)
18-20	28 (22.6)	78 (62.9)	18 (14.5)	124 (100)
21-25	7 (21.2)	23 (69.7)	3 (9.1)	33 (100)
Total	44 (24.0)	110 (60.1)	29 (15.8)	183 (100)

Chi Sq = 9.64, p-value = 0.047

Table 2 shows that in the present study among the women who were married at age less than 18 years, the number of women were almost equal in all the three categories of pregnancy (primigravida, multigravida and grand multigravida) whereas as the age at marriage increased the number of women who were multigravida were more than twice than primigravida and grand multigravida and this association was found to be statistically significant.

Table 3: Association of number of abortions with age of women at marriage (n=183)

Age at Marriage (years)	No. of Abortions			Total
	0	<3	≥3	
	No. (%)	No. (%)	No. (%)	No. (%)
< 18	20 (76.9)	2 (7.7)	4 (15.4)	26 (100)
18-20	79 (63.7)	41 (33.1)	4 (3.2)	124 (100)
21-25	21 (63.6)	11 (33.3)	1 (3.0)	33 (100)
Total	120 (65.6)	54 (29.5)	9 (4.9)	183 (100)

Chi Sq = 12.23, p-value = 0.016

Table 3 shows that in the present study among the women who were married at less than 18 years age, 15.4% had three or more abortions, which decreased to 3.2% and 3.0% respectively in the women getting married at the age groups of 18-20 years and 21-25 years and this association was found to be statistically significant.

Table 4 shows that in the present study number of women in the Muslim religion (35.2%) having three or more children were almost three times as compared to women of Hindu religion (12.6%) and this association was found to be statistically significant.

Table 4: Association of number of children of antenatal women with religion (n=183)

Religion	Number of Children			Total
	Three or more	One to Two	Zero	
	No. (%)	No. (%)	No. (%)	No. (%)
Hindu	12 (12.6)	48 (50.5)	35 (36.8)	95 (100.0)
Muslim	31 (35.2)	19 (21.6)	38 (43.2)	88 (100.0)
Total	43 (23.5)	67 (36.6)	73 (39.9)	183 (100.0)

Chi Sq= 20.84; p-value= 0.000

CONCLUSION

Based on the findings from the present study, it was seen that a high proportion of HRP Day Beneficiaries of rural Meerut were Anemic. It is well known that if anemia is detected early, it can be reduced to a marked level. Initiatives like PMSMA can help detect avoidable high risk factors like anemia well in time and can go a long way in reducing maternal mortality ratio in our country. Also as seen in this study, maximum HRP Day beneficiaries had MCP card issued but registration with MCTS number was very less, hence, insistent action is required to inscribe PMSMA information on online portals and making the awareness of MCTS number more distinct among the staff members. However, more studies with higher sample size done for longer duration will help in determining the various other characteristics of high risk pregnancy prevalent in India.

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