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Knowledge, Attitude and Practice towards Maternal Health Programmes

Dr Janice A Pais[1], Dr Prema D'Cunha [2]

[1] Postgraduate, Department of Obstetrics and Gynaecology, Father Mullers Medical College and Hospital, Mangaluru, Karnataka, India
Corresponding Author Email: *paisjanice8464[at]gmail.com*

[2]Professor, Department of Obstetrics and Gynaecology, Father Mullers Medical College and Hospital, Mangaluru, Karnataka, India

Abstract: ***Introduction: Maternal health is a vital parameter for assessing the quality of health services in a country. With the various maternal health care programmes, India has achieved a reduction in Maternal Mortality Ratio by three quarters between 1990 and 2015.Various studies done across the country have shown that less percentage of pregnant women are aware of the major national maternal health programmes. Thus, a gap exists in the knowledge on maternal health programmes in our society and so this study was done. Objectives: a) To find out the knowledge and attitude of antenatal mothers regarding maternal health care programmes offered by the Government of India b) To find out the antenatal care practices observed by antenatal mothers. Methods: The study was conducted in two primary health centers in Dakshina Kannada District in 2022.Informed and written consent was taken and ethical committee approval obtained. This was a cross sectional study of 82 antenatal mothers visiting the primary health centers for regular antenatal check-up. A google form questionnaire was used to collect data from the participants. Collected data was analyzed by frequency, percentage and Chi square test (p=<0.05). Results: Among the respondents, 56.1 % (n= 46) had good knowledge, 95.1 % (n=78) had good attitude and 95.1% (n=78) had good practice. Among the various maternal health programmes offered by the government of India, benefits of PMMVY (Pradhan Mantri Mathru Vandana Yojana) programme was known by the highest percentage of women (70.7%). Only 54.9% (n=45) knew the benefits available under the PMSMA (Pradhan Mantri SurakshithMathrithva Abhiyan) Programme. 97.6% (n=80) agreed that these government run mother child programmes are useful for them. Conclusion: There was a positive correlation between knowledge and attitude, knowledge and practice respectively. There was insignificant association between age and knowledge and qualification and knowledge. Through this study we found that, there is a need for spreading more information among the pregnant women about the various government maternal and child health care programmes and their benefits.***

Keywords: Antenatal Care, GovernmentProgrammes, Maternal Health , Knowledge Assessment, Dakshina Kannada District

1. Introduction

Maternal health is a vital parameter for assessing the quality of health services in a country [1]. Maternal Mortality Ratio (MMR) refers to deaths due to complications from childbirth or pregnancy per 1 lakh live births. The MMR under the Sustainable Development Goals (SDG) for 2030 is 70. India's MMR is 113 at present [2].With the various maternal health care programmes, India has achieved a reduction in MMR by three quarters between 1990 and 2015[3].This decline is attributed to the government of India's schemes aimed at improving maternal health [1].

Schemes like Janani Suraksha Yojana under NationalHealth Mission have contributed significantly to the rise in antenatal care and institutional deliveries, thereby reducing MMR[4].Deliveries in health facilities will not necessarily translate into increased survival chances of mothers unless women receive full antenatal care services and delays in reaching health facility are avoided[5].Utilization of the recommended maternal healthcare services is crucial for improvement of the overall health and well-being of women and children and interventions through the NHM (National Health Mission) has brought about remarkable decreases in both the MMR and the IMR (Infant mortality rate)[6].

Various studies done across the country have shown that less percentage of pregnant women are aware of the major national maternal health programmes such as Pradhan Mantri SurakshithMatritva Abhiyan programme(PMSMA) [7,8], Janani Suraksha Yojana (JSY) [9], and Janani Shishu Suraksha KaryakramProgramme (JSSK) [10]. Studies have also shown that overall maternal complications were higher in PMSMA service non-utilized group of mothers when compared to the group who utilized PMSMA service [7]

Thus, there is a gap in the knowledge on maternal health programmes in our society and hence this study was done to assess the knowledge, attitude and practice of antenatal mothers towards maternal health programmes.

2. Aims and Objectives

a) To find out the knowledge and attitude of antenatal mothers regarding maternal health care programmes offered by the Government of India
b) To find out the antenatal care practices observed by antenatal mothers

3. Material and Methods

Type of study and Study design: It is a cross-sectional descriptive study. The study was carried out in Jeppu urban primary health centre (PHC) and Pudu rural PHC for 2 months duration in November and December 2022.Both the PHCs are located at Dakshina Kannada district in Karnataka.It is a primary medical research type of study with focus on KAP among pregnant women regarding maternal health programs.

Study population: All pregnant women participants with age 18 years and above visiting the PHCs in two months

period were included in the study. Jeppu urban PHC had a total of 204 antenatal mothers and Pudu rural PHC 270 antenatal mothers registered at the time of study respectively. All participants were given a full explanation of the study methodology and purpose with an assurance of confidentiality. Participants were also assured that their participation in the study was voluntary and that they could refuse to participate at any time during the study.

Selection criteria: All pregnant women age 18 years and above comprised the study population. Antenatal mothers who were taking antenatal checkup at the PHC and were willing to participate in the study were included. Exclusion criteria was set as antenatal mothers not willing to give information.

Sample size estimation: The sample size (n) was calculated by the formula: $n = N / 1+ Ne^2$ where N= population size (antenatal mothers registered at both Jeppu and Pudu PHC) = 474 , e= allowable error = 10%. Since n= 474/1 +474 x $(0.1)^2$= 82, sample size was taken as 82.

Data collection procedure and tools: The study participants were explained about the study in detail and were invited to take part in the study. A google form questionnaire was used to collect the data from the participants. The questionnaire comprised questions on the sociodemographic profile, knowledge, attitude and practice about maternal health programmes. The questionnaire was also translated into Kannada language and explained in such a way that each of the participants understood the questions substantially for independent answers. The forms were filled, saved and checked for completeness by the author.

Statistical analysis: The data was entered and analysed with the help of Microsoft Excel software. Collected data was analyzed by Frequency, Percentage and Chi square test. The knowledge , attitude and practice score was calculated by adding all positive responses of questions , answer to each question was assigned 1 for answered as YES and 0 for answer as NO.

Ethical considerations: The Ethical clearance for conduct of the study was obtained from the institutional ethical and research committee before starting the study. Informed consent was taken from all the study participants.

4. Results

A total of 82 participants took part in the study and had the following demographic data as shown in Table 1. Maximum mothers were between the age group of 20-25 years and were between 7-9 months of gestation. Most of them were educated till class 10th and maximum were homemakers.

Table 1: Sociodemographic profile:

		Count	Column N %
Age Group of respondents	20-25 years	34	41.5%
	26-30 years	26	31.7%
	31-35 years	19	23.4%
	36-40 years	2	2.4%
	>40 years	1	1.2%
	Total	82	100.0%
Gestational age of respondents in months	1 - 3	21	25.6%
	4 - 6	30	36.6%
	7 - 9	31	37.8%
	Total	82	100.0%
Education level of respondents	1= till 10thStd	33	40.2%
	2= till PUC	26	31.7%
	3= degree	19	23.17%
	4=professional degree	4	4.89%
	Total	82	100.0%
Occupation of respondents	Home maker	67	81.7%
	Working	15	18.3%
	Total	82	100.0%

Knowledge regarding maternal health programmes: (Table 2)

Programmes that provide incentives were known by maximum number of mothers such as PMMVY and JSY as shown in Table 2.

Table 2: Pregnant women's KNOWLEDGE on maternal health programmes: [N=82]

Variable	No		Yes		Total	
	Count	Row N %	Count	Row N %	Count	Row N %
1) Which maternal and child health programmes do you know?	40	48.8%	42	51.2%	82	100.0%
2) Have you heard about the Pradhan Mantri SurakshithMatrithva Abhiyan (PMSMA) programme?	33	40.2%	49	59.8%	82	100.0%
3) Do you know the benefits available under the Pradhan Mantri SurakshithMatrithva Abhiyan Programme?	37	45.1%	45	54.9%	82	100.0%
4) Are you aware of facilities like: free blood tests (Hemoglobin, HIV test, blood group, sugar test) blood pressure and weight checkup, medications (Iron, Folic acid, Calcium tablets) are provided for free at government run centres under the PMSMA programme?	36	43.9%	46	56.1%	82	100.0%
5) Do you know about the Pradhan Mantri Matru Vandana Yojana (PMMVY) programme?	34	41.5%	48	58.5%	82	100.0%
6) Under Pradhan Mantri Matru Vandana Yojana, government gives Rs 5000/- for your first delivery. Are you aware of it?	24	29.3%	58	70.7%	82	100.0%
7) Do you know about the Janani Suraksha Yojana (JSY) programme?	33	40.2%	49	59.8%	82	100.0%
8) Under the Janani Suraksha Yojana programme, you will get Rs. 700/- in rural areas and Rs. 600/- in urban areas after delivery. Are you aware of it?	31	37.8%	51	62.2%	82	100.0%
9) Do you know that you will get money under the Janani Suraksha Yojana programme only for the first two children?	34	41.5%	48	58.5%	82	100.0%

10) Do you know about the Janani Shishu Suraksha Karyakram (JSSK) programme?	41	50.0%	41	50.0%	82	100.0%
11) Do you know that there are free delivery services (free normal delivery and free Cesarean sections) at government centers under the JSSK programme?	31	37.8%	51	62.2%	82	100.0%
12) Do you know that you will get free treatment, free food, free diagnostic test, free blood and free transport for the first 3 days in Normal Vaginal Delivery and for the first 7 days in C-Section under the Janani Shishu Suraksha KaryakramProgramme (JSSK)?	33	40.2%	49	59.8%	82	100.0%
13) Do you know that there is free treatment if your child gets sick upto 1 year of age under JSSK programme?	38	46.3%	44	53.7%	82	100.0%
14) Do you know about the Intensified National Iron Plus Initiative - Anemia Mukt Bharat Programme?	46	56.1%	36	43.9%	82	100.0%
15) Do you know that iron, calcium and folic acid tablets are given for free to all pregnant women in government centers?	20	24.4%	62	75.6%	82	100.0%

Attitude regarding antenatal care: (Table 3)
11% of mothers did not have a government run center near their home.80 mothers agreed that these government health programs are useful to mother and child health care as shown in Table 3.

Table 3: Pregnant women's Attitude regarding antenatal care [N=82]

Variable	No		Yes		Total	
	Count	Row N %	Count	Row N %	Count	Row N %
1) Do you think the above programs provided by the government are of use to you or your family?	6	7.3%	76	92.7%	82	100.0%
2) Do you have any government run centers with mother-child care facilities near your house?	9	11.0%	73	89.0%	82	100.0%
3) If you do have a government run center with mother-child care facility near your house, would you go there for a checkup during pregnancy?	6	7.3%	76	92.7%	82	100.0%
4) If there are no government run centers near your house, would you ask someone about government run centers in other places so that you can benefit from the health programs?	8	9.8%	74	90.2%	82	100.0%
5) Do you think that these government health programs are useful and relevant to mother and child health care?	2	2.4%	80	97.6%	82	100.0%
6) Are you interested in registering yourself at the nearest Anganwadi Centre/ Primary Health Centre/ any other government center near your house to avail the benefits of the programs?	3	3.7%	79	96.3%	82	100.0%

Antenatal care practices: (Table 4)
81 mothers took the supplements as advised by the doctor regularly and were willing to follow the same advice as per the doctor as shown in Table 4.

Table 4: Antenatal care practices [N=82]

Variable	No		Yes		Total	
	Count	Row N %	Count	Row N %	Count	Row N %
1) Are you consulting the doctor for your antenatal checkup at your Primary Health Centre/ Government center regularly as advised?	4	4.9%	78	95.1%	82	100.0%
2) Are you taking the medications given during your pregnancy like iron /folic acid tablets regularly?	1	1.2%	81	98.8%	82	100.0%
3) Are you willing to follow the same advice as given by your doctor?	1	1.2%	81	98.8%	82	100.0%

KAP versus age, education and occupation: (Table 5)
Table 5 shows the association between KAP versus age, education and occupation respectively.There was no significant relationship between knowledge with age, education and occupation.There was no significant relationship between attitude with age, education and occupation.There was no significant relationship between practice with age, education and occupation.

Table 5: (NS – not significant)

	Age	Education	Occupation
Knowledge	NS	NS	NS
Attitude	NS	NS	NS
Practice	NS	NS	NS

Correlation between knowledge, attitude and practice (Table 6): As shown in Table 6, there was a positive correlation between knowledge and attitude, also between knowledge and practice. Thus, more the knowledge, better was the attitude and practice. There was also a positive correlation between attitude and practice.

Table 6

		Attitude	Practice
Knowledge	Pearson Correlation	.336	.257
		.002	.020
		Significant	Significant
Attitude	Pearson Correlation		.774
			.000
			Significant

5. Discussion

It is known that most perinatal deaths can be prevented if adequate antenatal care and timely obstetric care is provided. In this study, among the various maternal health programs offered by the government of India, benefits of PMMVY (Pradhan Mantri Mathru Vandana Yojana) programme was known by the highest percentage of women (70.7%) out of 82 pregnant women. Only 54.9% (n=45) knew the benefits available under the PMSMA (Pradhan Mantri SurakshithMathrithva Abhiyan) programme as compared to a study by Gurmeet et al[9] in Delhi where 63.1% out of 203 respondents knew the services available under the PMSMA programme. One reason for more awareness about the PMMVY programmecompared to the PMSMAprogramme could be that cash incentives are being provided to the mothers under the PMMVY programme.50%mothers in our study had poor knowledge on JSSK when compared to a study by Kokilamma et alwhere only 27% had inadequate knowledge on JSSK [10] and Chatterjee et al in West Bengal where 68.75% of mothers had poor awareness regarding free entitlements of JSSK [11].Only 62.2 % out of 82 mothers in our study knew about the cash incentives available under the JSY program. A study by Yangchen et al showed that only 37 % among 349 postnatal mothers had knowledge on JSY program during their pregnancy [12]. In this study, 97.6% (n=80) agreed that these government-run mother-child programs are useful for them.

Age, education and occupation did not have any statistically significant relationship in our study with knowledge, attitude and practice respectively towards maternal health programs. A positive relationship could have been established if the sample size was higher. A review study by Hamal et al showed an association between education and occupation with the use of maternal health service in India, with educated mothers and non-home makers having a higher odds ratio compared to illiterate mothers and home makers [13].

Among 82 pregnant women in our study, 56.1 % (n= 46) had good knowledge, 95.1 % (n=78) had good attitude and 95.1% (n=78) had good practice. Thus, overall knowledge of maternal health programs needs improvement in society. In this study, we found a positive correlation between knowledge and attitude, knowledge and practice respectively. The idea behind this study was not just to find out the knowledge, attitude and practice regarding maternal health programs but also to spread information about these programs to mothers through our questionnaire method. A review study by Hamal et al [13] has found that maternal health messages have influenced maternal health service use in India. The strength of this study is that such a study has not been done in this part of the state and more studies like this on a higher sample size would improve the overall knowledge, especially among rural illiterate mothers. Limitation of this study being data from pregnant women in both rural and urban areas were combined together and if the data were analyzed separately, we would have known which area needed more attention.

6. Conclusion

Awareness level regarding maternal health programs needs to be increased through more research like this. These health programs not only increase the likelihood of institutional deliveries but also indirectly decrease the overall maternal mortality rate. Thus, efforts are needed to increase this awareness for a better and a stronger India.

Conflict of Interest
None declare

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