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## Original Research Article

# A study on perception about antenatal care among primigravida attending a tertiary care hospital

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## ABSTRACT

**Background:** Maternal mortality rate and Infant mortality rate remains high in India when compared to several other countries. Understanding and being aware about the basic care provided during pregnancy is an important factor to make the pregnant woman to utilize the antenatal care. Hence this study was planned to assess the existing knowledge of primi gravid mothers attending the tertiary health care center about the various antenatal care services provided.

**Methods:** This cross-sectional study was conducted among the primi gravid females attending the outpatient department of Obstetrics and Gynecology in Sri Muthukumaran Medical College Hospital and Research Institute, Chennai during months of June 2018 to May 2019. A total of 280 primi gravid mothers were included in the study. Data was collected through one to one interview and analyzed using statistical package for social sciences (SPSS) version 17.

**Results:** In this study 82.9%, 70.4%, 80.7% of the mothers were aware about consumption of IFA tablets, TT injection and adequate ANC visits, respectively. PNDT act was known to 76.1% of the participants. Only 12.5% of the primi mothers were aware about Janani Suraksha Yojna (JSY) scheme and 91.8% of the mothers were aware about Dr. Muthulakshmi Maternity Benefit scheme.

**Conclusions:** Knowledge about ANC services was found to be fair among the primi mothers but not sufficient, which shows the need for the healthcare professionals to educate young woman even from adolescent age itself.

**Keywords:** Antenatal care, Awareness, Knowledge, Warning signs

## INTRODUCTION

Antenatal care (ANC), a well-known term for all health care professionals to ensures the health of both fetus and the mother during pregnancy. Antenatal care is defined as care provided by skilled health-care professional to pregnant women in order to ensure best health conditions for both the mother and the baby during pregnancy.<sup>1</sup>

Though the term ANC is so familiar maternal mortality rate (MMR) and infant mortality rate (IMR) remains high. According to NITI aayog, MMR was 130/100000

live birth in India and in Tamil Nadu 66/100000 live births during the year 2017.<sup>2</sup> Similarly sample registration system (SRS) reported that IMR was 33/1000 live births in India and 16/1000 live births in Tamil Nadu during the year 2017.<sup>3</sup>

In order to reduce the MMR and IMR several measures were taken by the ministry of health and family welfare but still the existing knowledge among the beneficiaries that is among the antenatal mothers remains a question. Proper ANC is one of the important ways in reducing maternal and child morbidity and mortality.

Unfortunately, many women in developing countries do not receive such care.<sup>4</sup> Understanding maternal knowledge and practices of the community regarding care during pregnancy is an important factor which is to be considered before designing a programme and its implementation.<sup>5</sup>

Common ideology is that multiparous women will have better aware about the antenatal services and hence this study was planned to assess the existing knowledge of primi gravid mothers attending the tertiary health care center at the first visit after conception (during the confirmation of pregnancy) about the various antenatal care services provided.

Objectives of this study was to assess the knowledge about antenatal care services provided to pregnant females, among primi gravid females attending a tertiary care center.

## METHODS

This cross-sectional study was conducted among the primi gravid females attending the outpatient department of obstetrics and gynecology for confirmation in Sri Muthukumaran Medical College Hospital and Research Institute, Chennai during months of June 2018 to May 2019. Based on the literature, considering the prevalence of knowledge about ANC as 58%, confidence of 95% and relative precision of 10%, the sample size was calculated as 279 and it was rounded to 280.<sup>6</sup> Hence, a total of 280 primi gravid mothers were included in the study. Patients who had previous abortions were excluded from the study.

The principal investigator explained the purpose of the study to each participant and a written consent was obtained from the participants prior to the commencement of the study. The participants were also informed that their participation was voluntary and that they could withdraw from the interview at any time without consequences. Every effort was made, to be sure that all information collected from the participants, remain confidential. The study was conducted using a questionnaire, covering particulars related to demographic, socio economic (Modified Prasad's Socio-Economic Scale, 2019)<sup>7</sup> and knowledge about necessary antenatal care.

### Statistical analysis

Data was entered in Microsoft excel and data analysis was done using Statistical Package for Social Sciences (SPSS) version 17.

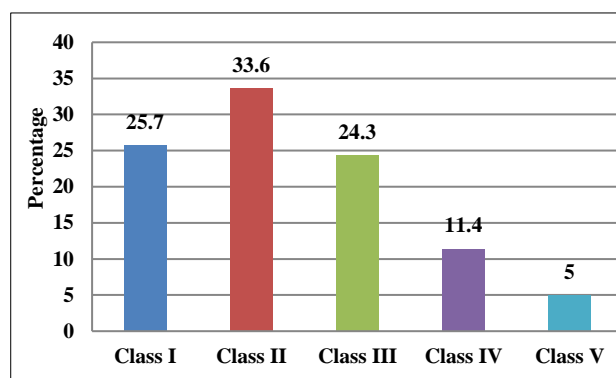
## RESULTS

In this present study 6.8% of the mothers were less than 20 years of age, maximum participants were between 26 to 30 years of age group (42.1%), 22.5% of the primi

mothers were between 21 to 25 years of age group and 28.6% of the mothers were above 30 years of age.

**Table 1: Background characteristics of the participants.**

Variables	Frequency (N = 280)	%
<b>Age group</b>		
< 20 years	19	6.8
21-25 years	63	22.5
26-30 years	118	42.1
> 30 years	80	28.6
<b>Education</b>		
High school	42	15
Higher secondary school	114	40.7
Under graduate	81	28.9
Post graduate	43	15.4
<b>Occupation</b>		
Employed	56	20
House wife	224	80



**Figure 1: Socio economic status of the participants.**

High school education was completed by 15% of the mothers, 40.7% of the mothers have done higher secondary school, 28.9% of the primi mothers were undergraduates and post graduates were 15.4% in our study. Also, only 20% of the mothers were employed (Table 1)

Based on modified Prasad's socio-economic status, 25.7% of the primi mothers belonged to class I SES, 33.6% of the mothers belonged to class II SES, 24.3% of the mothers were in class III SES. Under class IV and class V SES 11.4% and 5% mothers were recorded (Figure 1).

Regarding knowledge about Antenatal care among primi mothers 82.9% of the mothers were aware about consumption of IFA tablets. TT injection was known to 70.4% of the primi mothers. In our study 80.7% of the primi mothers were aware about more than 3 ANC visits during pregnancy. Registration of all antenatal mothers including those who are consulting private practitioners, private hospitals/clinics under RCH programme knowledge were present among 52.2% of the primi.

PNDT act was known to 76.1% of the participants. Only 12.5% of the primi mothers were aware about Janani Suraksha Yojna (JSY) scheme under central government whereas 91.8% of the mothers were aware about Dr. Muthulakshmi maternity benefit scheme under state government (Table 2).

**Table 2: Knowledge regarding antenatal care (ANC) and schemes among the study participants.**

Components	Frequency	%
Consumption of IFA tablet	232	82.9
TT injection	197	70.4
<b>ANC visits</b>		
≤ 3 visits	54	19.3
> 3 visits	226	80.7
Registration of all AN mother under RCH programme	147	52.2
PNDT act	213	76.1
Janani Suraksha Yojna (JSY)	35	12.5
Dr. Muthulakshmi maternity benefit scheme	257	91.8

**Table 3: Knowledge about danger signs of pregnancy.**

Danger signs of pregnancy	Frequency (N = 280)	%
Pain abdomen	47	16.8
Bleeding per vagina	67	23.9
Leaking per vagina	71	25.4
Pedal edema	12	4.3
Fever	36	12.9
Convulsions	64	22.9
Reduced fetal	29	10.4
Not aware	69	24.6

Among the primi mothers in this present study knowledge about danger signs like pain abdomen was known to 16.8% of the mothers, bleeding per vagina was known to 23.9% of the mothers, leaking per vagina was known to 25.4% of the mothers. Danger signs like pedal edema, fever, convulsions were known to 4.3%, 12.9% and 22.9% of the primi mothers respectively. Reduced fetal movement was known to 10.4% of the primi mothers. In this study 24.6% of the primi mothers were not aware about any danger signs of pregnancy (Table 3).

## DISCUSSION

Improper antenatal care is an important risk factor for adverse pregnancy outcomes among women.<sup>8</sup> In the present study regarding knowledge about Antenatal care among primi mothers, 82.9% of the mothers were aware about consumption of IFA tablets. Whereas a study conducted by Ghosh et al in Kolkata and Jalina et al in Manipur reported 54.1% and 96% were aware about consumption of IFA tablet, respectively.<sup>9,10</sup>

In the present study knowledge about taking TT injection were present among 70.4% of the primi mothers which is consistent with the reports of Ghosh et al (76.5%).<sup>9</sup> In our study 80.7% of the primi mothers were aware about more than 3 ANC visits during pregnancy which is consistent with the study done by Jalina et al, where 97.4% of women were aware about adequate ANC visits.<sup>10</sup> Also, Chandhiok et al reported 73.9 % were aware of adequate ANC visits.<sup>11</sup>

Registration of all antenatal mothers including those who are consulting private practitioners, private hospitals/clinics under RCH programme knowledge were present among 52.2% of the primi. Whereas Ghosh et al reported knowledge about registration of pregnancy as 83.7%.<sup>9</sup> It could be because since March 2018, it was made mandatory for registering all cases consulting in the private hospitals also to be registered under RCH programme and hence the awareness was found to be comparatively less. In this study knowledge about PNDT act was present among 76.1% of the participants. Similarly, a study by Shrivastava S et al conducted at Bareilly revealed that 80% females were aware of PNDT Act.<sup>12</sup> Also in contradicting to this in a study by Puri S et al, in slums of Chandigarh showed that only 16% were aware that it was punishable under the law.<sup>13</sup> Chavada M et al, had similar findings with 91.1% of urban and 96.4% of rural women were aware of PNDT act.<sup>14</sup>

Only 12.5% of the primi mothers were aware about Janani Suraksha Yojna (JSY) scheme under central government whereas Ghosh et al reported knowledge about JSY as 32.7% in their study.<sup>9</sup> Also 91.8% of the mothers were aware about Dr. Muthulakshmi Maternity Benefit scheme under state government. The awareness about the Dr. Muthulakshmi maternity benefit scheme is more in this study because it is a state sponsored programme and also it could be due to the difference in cost paid to the beneficiaries. Knowledge of danger signs of obstetric complications during pregnancy, labor and postnatal period is the first essential step for appropriate and timely referral.<sup>15</sup> However in the present study, knowledge about danger signs like pain abdomen was known to 16.8% of the mothers, bleeding per vagina was known to 23.9% of the mothers, leaking per vagina was known to 25.4% of the mothers. Danger signs like pedal edema, fever, convulsions were known to 4.3%, 12.9% and 22.9% of the primi mothers respectively. In a study conducted in Kolkata, about 32.7% women knew about danger signs of pregnancy. They reported the most common danger signs as severe bleeding (70.3%) followed by reduced foetal movement, pain abdomen.<sup>9</sup> Other studies had shown similar results like 27.8% and 28.3% women knew about danger sign of pregnancy.<sup>16,17</sup>

## CONCLUSION

Knowledge about ANC services was found to be fair among the primi mothers but not sufficient. This shows at present there is a need to motivate young women to

utilize the health care services which are freely available in all the government health setups. In order to improve the awareness among the primi mothers on ANC, sufficient education should be given during the adolescent age onwards.

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