

## Assessment of Knowledge Regarding Importance of Antenatal and Postnatal Care among Pregnant Women Registered During First Trimester

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DOI: 10.36347/sjahss.2022.v10i07.006

| Received: 08.06.2022 | Accepted: 17.07.2022 | Published: 21.07.2022

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### Abstract

### Original Research Article

**Background:** Pregnant women must receive good quality of care through out pregnancy and after delivery to have optimum outcome. Knowledge of the women regarding importance of care during pregnancy determines their behaviour and practices. With this background the study was conducted among the first trimester pregnant women Knowledge assessment and family support. **Methods:** A cross sectional research study was conducted using interview method to find out knowledge of pregnant women, belonging to rural area, about importance of antenatal and postnatal care. **Results:** Observation revealed that 94.6% and 76% women had knowledge about early registration and number of antenatal visits respectively. Knowledge about tetanus toxoid injection and importance of intake of iron and folic acid was seen in 48.0% and 85.5% of women respectively. Study revealed that 32% and 92 % of women were aware about hepatitis-B test and Haemoglobin test respectively, where as 51.6% and 52% of pregnant women knew about HIV testing and blood sugar testing respectively. Exclusive vomiting and swelling in the limbs were considered risk factor according to 52% and 56.6% of pregnant mothers respectively. Per vaginal bleeding or white discharge, convulsion and decreased fetal movements were considered as risk factors according to in 74.2%, 88% and 74% of pregnant mothers respectively. **Conclusion:** It was found that less educated, illiterate, early married, young pregnant women had poor knowledge about pregnancy, antenatal care and postnatal care.

**Keywords:** Antenatal care, Postnatal care.

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## INTRODUCTION

Pregnancy is the most beautiful and pleasing event in women's life. During this period, a lot of physiological changes may occur as an adaptation for pregnancy. These changes are necessary to support the function of the maternal, placental and fetal unit [1]. Appropriate antenatal and postnatal care is one of the pillars of this initiative. Antenatal care is the routine health control of presumed healthy pregnant women without symptoms (screening), in order to diagnose diseases or complicating obstetric conditions without symptoms [2]. Postnatal care is care of mother and new born from 1 after delivery up to 6 weeks post-delivery [3].

Pregnancy care consists of pre-natal (before birth) and post-partum (after birth) healthcare for

expectant mothers. It involves good knowledge to ensure a healthy pregnancy, and safe labour and delivery for mother. Prenatal care helps decrease risks during pregnancy and increases the chance of a safe delivery. Pregnant woman needs to know how to take care of herself and her unborn baby and what are the essential elements of care during pregnancy and after delivery.

Knowledge is a familiarity, awareness, or understanding of someone or something, such as facts, information, descriptions, or skills, which is acquired through experience or education by perceiving, discovering, or learning. According to Webster's dictionary, knowledge is 'the fact or condition of knowing something with familiarity gained through experience or association' [4-7]. Considerable gaps in knowledge regarding postnatal care among postpartum

mothers were evident. Special attention should be laid on rural residents, single/living together, junior/below in educational level, primigravida/para, non-tigrigna ethnicity, and 17 to 25 years old mothers [3]. The interactive messaging alert used to be effective in empowering pregnant women through greater access to information on key danger signs and birth preparedness [8]. Study aimed at assessment of knowledge regarding importance of Antenatal and Postnatal Care among Pregnant women registered during first trimester. Objectives of study were to assess the knowledge about antenatal care, to assess knowledge about postnatal care.

## METHODOLOGY

It was a cross sectional study performed in a antenatal clinic of tertiary care hospital for a period of 8 months from September 21 to April 2022. The period included from formulation of study protocol, application for ethical approval, collection, entry and analysis of data. Primary data was collected by researcher using pre tested and pre validated questionnaire in outpatient department of Pravara Rural Hospital, Loni. Daily 18 pregnant women report during first trimester at Pravara Rural Hospital, in a working day, thus monthly approximately 450 per month, so sample size of study 208. Sample size was calculated using Raosoft. Software (www.raosoft.com/samplesize.html) with consideration of 5% margin of error and 95% confidence level.

### Inclusion criteria

- Pregnant women in first trimester of pregnancy, who attended the antenatal clinics at Pravara Rural Hospital and who were willing to take part in the study

### Exclusion criteria

- Antenatal women with high-risk pregnancy and antenatal women who were not be willing to take part in the research Study

All respondent of this study will be clearly explained about the purpose of the study in Marathi before taking informed consent and ensuring their privacy, confidentiality before the interview. All responses from the women were compiled and entered in the excel sheet and data analysis was done using R-program. (<https://www.R-project.org/>) /SPSS. Descriptive statistical tests were used to find out overall knowledge of pregnant women regarding antenatal and postnatal care. Institutional ethical committee approval was obtained.

## RESULTS

Many illiterate and less educated young women in the first trimester had un-satisfactory knowledge about need for antenatal care, haematinic supplements, tetanus immunization, essential laboratory

tests, breast feeding, family planning methods, danger signs in pregnancy and labour period, important drugs like- TT injections, folic acid tablets. Large percentage of women were aware about importance of institutional delivery. Maternal safety was the important reason for institutional delivery. This decision was influenced by the family members and health care workers. Women from lower socio-economic background and who were less educated had insufficient knowledge about importance of were hospital delivery. Most pregnant women got knowledge about pregnancy and delivery, post-delivery care from relative and healthcare workers.

Observation revealed that 94.6% women of all ages have knowledge about early registration. Most 98.0% of women aged 22-25 have knowledge about this. More than 94.9% of women who were educated up to secondary to higher education were known about antenatal care. While 100% of women with highly educated professional degree, Intermediate / Diploma it's had good knowledge of antenatal care.

Knowledge about number of visits was observed. Over all 76% of pregnant women, knew about number of visits, 78% of women in the age group of aged 22-25 and 88.9% of women in the age group of aged 30-33 knew about pregnancy visits. All women with professional degree and intermediate / diploma had good knowledge about importance of antenatal visit. Only 50 to 57% of the less educated and Illiterate women are known of this.

All women aged 26-29 years and 30-37 years knew about sonography and all women who had education up to degree, professional degree, intermediate / diploma, knew about sonography. 48.0% of women of all ages knew about TT injections where as 60.5% of women aged 26-29 and 83.3% of women with the highest Intermediate / Diploma had knowledge about TT. 88.9% of women of all ages knew about importance of taking Iron and folic acid Tablet. 88.9% of women in the age group of 30-37 were most knowledgeable. 85.5% of women of all ages knew about importance of BP check-up (Table 1).

Observation shows that overall 94.6% women of all religions (95.5% Hindu and 92.5% Muslim) knew about importance of early registration The overall knowledge of women in the Nuclear family and Joined Family is about 94%. More than 97.11% and 96.9% of second and third time pregnant women had knowledge about this aspect. Of all the pregnancies, 76% of women were aware of pregnancy visits, the highest (83.3%) were Christian followed by (77.3%) Hindu. Knowledge of visits was seen in 78.9% women in the nuclear family and 75.4% women who joint family. Maximum Hindu (98.8%) women followed by Muslim (97.5%) women knew about sonography. All pregnant women with second time, third time, and above third time were aware about sonography. 48% of women

were aware of TT injection. Maximum Christian (50%) women and Hindu (48.0%) women, 56.6% women in separated family and 47% women in joint family had TT injection information (Table 2).

Observation shows that 32% of women of all ages were aware about of the hepatitis-B test. 92% of women of all ages were aware about Haemoglobin test. 51.6% of pregnant women of all ages knew about HIV testing. 52% of pregnant women of all ages had knowledge about Diabetes testing. Observation showed that of all religions, 32% of pregnant women were aware of the Hepatitis B test. 42% of Muslims, 30.8% of Hindus, 32% of joint families, 31.6% of separated families, 66.7% pregnant women with more than third time of pregnancies had knowledge about Hepatitis B test.

Of all religions, 92.3% of pregnant women had known of the Haemoglobin test. Religion wise it was observed that 95% of Muslims, 92% of Hindu, 91% of joint families, 97.4% of separated families had knowledge about Haemoglobin test.

Exclusive vomiting was a risk factor according to 52% of pregnant mothers of all ages. Swelling in the limbs was a risk factor according to in 56.6% of pregnant mothers of all ages. Bleeding or white Discharge was a risk factor according to in 74.2% of pregnant mothers of all ages. Convulsions was a risk factor according to 88% of pregnant mothers of all ages.. Decreased or no movement of foetus is a risk factor according to in 74% of pregnant mothers of all ages. Convulsions is a risk factor according to 90.7% of pregnant women aged 26-29, 100% of professional degree, 78% degree PG, 83.3% intermediate / diploma educated, 80% of High school educated pregnant

women. Visual Disturbance is a risk factor according to in 69.2% of pregnant mothers of all ages. Visual Disturbance is a risk factor according to 77.8% of pregnant women aged 30-33, 100% of professional degree educated pregnant women. Abdominal pain is a risk factor according to in 67.9% of Highest pregnant mothers of all ages. Abdominal pain is a risk factor according to 76.7% of pregnant women aged 26-29, 100% of professional degree educated pregnant women.

According to 62.4% of pregnant women, vaginal bleeding during labour period is a risk factor. According to 78.3% of pregnant women of all ages, decreased or no foetal movement in labour period is a danger sign. According to 71.9% of pregnant women of all ages, onset of labour pain before completed 9 months is a danger sign. According to 66.1% of pregnant women of all ages, leaking more than 12 hours without labour pain is a danger sign in labour period. Observation revealed that 73.3% of all pregnant mothers know about breastfeeding a new born within an hour. As per 74.7% of all pregnant mothers knew about breast milk of first day is very nutritious and protective for the baby. According to 69% of all pregnant women, breastfeeding should be given on demand.

Study revealed that 23.5% ,43% and 24% women had knowledge about LAM, IUCD and DMPA as family planning method where as 49.3% of women were aware about OC pills and 60.6% of condom as a family planning method. Observation shows that 77.8% of pregnant women knew about importance of spacing between two babies. Women revealed the important source of their knowledge about care during pregnancy and childbirth knowledge about pregnancy and childbirth was their relative in 96 % cases.

**Table 1: Pregnant woman's knowledge about essential components of antenatal care in relation to her age and education**

Knowledge About	Yes/Dont Know	Age					Education							
		18-21	22-25	26-29	30-37	Total	Illiterate	Primary school	Middle school	High school	Intermediate/diploma	Degree/PG	Professional degree	Total
Total Number of women in variable		68 30.8%	101 45.7%	43 19.5%	9 4.1%	221 100%	7 3.2%	6 2.7%	99 4.8%	60 27.1%	6 2.7%	38 17.2%	5 2.3%	221 100%
Early Registration	Correct	61 89.7%	99 98.0%	41 95.3%	8 88.9%	209 94.6%	5 71.4%	4 66.7%	94 94.9%	58 96.7%	6 100%	37 97.4%	5 10.0%	209 94.6%



**Table 2: Pregnant woman's knowledge about essential components of antenatal care in relation to her Religion, Family type and Parity**

Knowledge About	Yes/Dont Know	Religion					Family Type			Number of Pregnancy				
		Hindu	Christian	Muslim	Any Others	Total	Nuclear Family	Joint Family	Total	First	Second	Third	Other	Total
Total Number of women in variable		172 77.8%	6 2.7%	40 18.1%	3 1.4%	221 100.0%	38 17.2%	183 82.8%	221 100.0%	108 48.9%	69 31.2%	32 14.5%	12 5.4%	221 100%
Early Registration	Yes	155 95.5%	5 83.3%	37 92.5%	2 66.7%	209 94.6%	36 94.7%	173 94.5%	209 94.5%	100 92.6	67 97.11	31 96.9%	11 91.1%	209 94.6%
	Don't Know	5 2.9%	1 16.7%	3 7.5%	1 33.3%	10 4.5%	2 5.3%	8 4.4%	10 4.5%	6 5.6%	2 2.9%	1 3.1%	1 8.3%	10 4.5%
Number of Visits	Yes	133 77.3%	5 83.3%	29 72.5%	1 33.3%	168 76.0%	30 78.9%	138 75.4%	168 76.0%	79 73.1%	49 71.0%	28 87.5%	12 100%	168 76.0
	Don't Know	27 15.1%	1 16.7%	10 25.0%	2 66.7%	40 18.1%	8 21.8%	32 17.5%	40 18.1%	23 21.3%	16 23.2%	1 3.1%	0 0.0%	40 18.1%
Sonography	Yes	170 98.8%	5 83.5%	39 97.5%	2 66.7%	216 97.7%	37 97.4%	179 97.8%	216 97.7%	103 95.4%	69 100%	32 100%	12 100%	216 97.7%
	Don't Know	2 1.2%	1 16.7%	1 2.5%	1 33.3%	5 2.3%	1 2.6%	4 2.2%	5 2.3%	5 4.6%	0 0.0%	0 0.0%	0 0.0%	5 2.3%
TT Injection	Yes	89 48.8%	3 50.0%	19 47.5%	0 0.0%	106 48.0%	20 56.6%	86 47.0%	106 48.0%	34 31.5%	42 60.9%	23 71.9%	7 58.3%	106 48.0%
	Don't Know	75 43.6%	3 50.0%	19 47.5%	3 100%	100 45.2%	15 39.5%	85 46.4%	100 45.2%	66 61.1%	23 33.3%	8 25.0%	3 25.0%	100 45.2%
Iron and Folic Acid Tab.	Yes	116 67.4%	4 66.7%	26 65.0%	1 33.3%	147 66.5%	26 68.8%	121 66.1%	147 66.5%	64 59.3%	47 68.1%	25 78.1%	11 91.1%	147 66.5%

BP check-up	Don't Know	Yes	Don't Know
	22 12.8%	146 84.9%	54 31.4%
3 7.5%	36 90.0%	13 35.5%	2 66.7%
1 33.3%	2 66.7%	72 32.6%	11 28.9%
27 12.2%	189 85.5%	61 33.3%	72 32.6%
3 7.9%	33 86.8%	44 40.7%	20 29.0%
24 13.1%	156 85.6%	8 25.0%	0 0.0%
27 12.2%	189 85.5%	72 32.6%	72 32.6%
18 16.7%	86 79.6%	44 40.7%	8 25.0%
5 7.2%	63 91.3%	20 29.0%	0 0.0%
2 6.3%	30 93.8%	8 25.0%	0 0.0%
2 16.7%	10 83.3%	0 0.0%	0 0.0%
27 12.2%	189 85.5%	72 32.6%	72 32.6%

## DISCUSSION

Motherhood is a beautiful experience where by the mother safely delivers a child. It is the magic of creation care must be given to ensure safe child birth. The mother has a right to get proper medical care and treatment labour is a natural process, which all pregnant women have to undergo. The health of women actually represent the health of the country she comes from. Women are the primary care taker, first education, bearers and nurtures of the next generation. Safe motherhood can only be reached if complete care is given to mothers. It is the comprehensive or total care that can be offered to women [9].

Family support plays crucial role in overall wellbeing of women during antenatal, natal and postnatal period. In Indian society, family support is being provided to pregnant women as set cultural norm. It is more prevalent in rural areas with joint families as compared to urban area with nuclear families. Family support helps women to avail antenatal care as per the norms, helps women to have institutional delivery and also helps during important phase of breast feeding for initial six months. Degree of family support depends on various aspects like socio economic status, religion, education, type of family.

To avoid the complications during the pregnancy and postpartum, pregnant women need to have the following basic knowledge.

### a-Prenatal knowledge

1). Register self at the nearest health facility as soon as pregnancy is detected. 2). Four antenatal check-ups are essential for a pregnant woman 3). Antenatal check-up HB, blood pressure (BP), urine, weight and abdomen check-up, TT 4). Diet during pregnancy, rich sources of important nutrients, cleanliness, rest during pregnancy, danger signals during pregnancy, danger signals during pregnancy & labor [10].

### b-Postpartum care knowledge

Problems after delivery, new born care, danger signals in new born, breastfeeding, complementary feeding immunisation schedule for baby, family planning advice (spacing methods), family planning advice (permanent methods), government schemes for mother and baby [10].

Self-care requisites or needs for preserving health and well-being. During pregnancy, the rapidly rising hormones change the maternal body and may cause some symptoms in the mother called as minor disorders. Pregnant women need to be informed of the meaning and importance of antenatal care and the need for them to avail themselves of the opportunity in order to benefit from expert monitoring of the progress of pregnancy, prompt identification of anything that may jeopardize the outcome of the pregnancy and access to skilled personnel at delivery [11]. "Healthy Mothers and Children's are the real wealth of Societies" [6].

Pregnant women should have basic knowledge on common minor discomforts and also they should have knowledge on how to manage these discomforts during pregnancy [1]. The mother knows all these things; we can avoid much complication of mother and baby. Good care during pregnancy is important for the health of the mother and the development of the unborn baby. Pregnancy is a crucial time to promote healthy behaviours and parenting skills [12]. Access to skilled health services during pregnancy, childbirth, and postpartum is a crucial element that promotes the health and wellbeing of the mother and new born [13]. During the last 15 years, access to skilled care during delivery and antenatal care (ANC) coverage, measured as the proportion of women who receive one to four or more ANC visits during their pregnancy [14].

During pregnancy, there is evidence that family support has beneficial effects on pregnancy and birth outcomes, like postpartum depression adequate infant birth size breast feeding and infant adiposity. When pregnancy occurs during adolescence, family support becomes more important, because adolescents

have a higher risk of inadequate gestational weight gain and low birth weight, in addition to their own needs as adolescents per se. It is known that family support has a positive impact on pregnancy in adolescence, especially when this support is provided by a female relative, such as the mom or older sister but there are other family members that offer support to the adolescent. Furthermore, the evidence focuses on the function and quality of support provided by the family network members and does not focus on the family support network size. Therefore, the aim of the present study was to analyse the association between the family support network (FSN) characteristics (size and members) and the outcomes of pregnancy in adolescents [15]. Women who are well educated and who belong to good socio-economic background, often avail available services provided by government and by private sector. Prenatal care helps to decrease risks during pregnancy and increases the chance of a safe delivery. She must get enrolled or registered early so that she is under supervision from early pregnancy.

## CONCLUSION

Many illiterate and less educated young women in the first trimester had un-satisfactory knowledge about need for antenatal care, haematinic supplements, tetanus immunization, essential laboratory tests, breast feeding, family planning methods, danger signs in pregnancy and labour period, important drugs like- TT injections, folic acid tablets. Large percentage of women were aware about importance of institutional delivery. Maternal safety was the important reason for institutional delivery. This decision was influenced by the family members and health care workers. Women from lower socio-economic background and who were less educated had insufficient knowledge about importance of were hospital delivery. Most pregnant women got knowledge about pregnancy and delivery, post-delivery care from relatives and healthcare workers.

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