

## Original Research Article

# Knowledge about antenatal care and warning signs in pregnancy among pregnant females of Nandpora area

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## ABSTRACT

**Background:** Knowledge gap about antenatal care and warning signs in pregnancy can result in adverse consequences in pregnancy and can also affect the developing foetus.

**Methods:** This cross-sectional study was conducted in Nandpora area of Block Hazratbal in 2018. Pregnant women who came to the subcentre Nandpora for registration of pregnancy in this year were included in the study. A predesigned questionnaire was used. Information was collected about the demographic details, details of the pregnancy and the questions related to knowledge about the antenatal care and warning signs in pregnancy. Data was entered in microsoft excel 2010 and analysed using Statistical package for social sciences (SPSS) version 23.

**Results:** Mean age was 33 ( $\pm 4.6$ ) years, 40% of the women were pregnant for second time and 67% were illiterate. About 73% of women were aware that at least 4 antenatal check-ups are necessary and about 84% knew that two doses of tetanus vaccine are required. About 89% of the women said that IFA tablets are necessary. About 51% of the women were aware of the bleeding per vaginum as being the warning sign in pregnancy. Fever and convulsions were reported as warning signs by about 49% of the subjects.

**Conclusions:** The women in our study had adequate knowledge about the antenatal care but there was low knowledge about the danger signs in pregnancy. The healthcare workers must be involved in improving the knowledge about danger signs of pregnancy by giving one to one knowledge to pregnant females at antenatal visits besides also creating awareness in the community.

**Keywords:** Prenatal care, Knowledge, Pregnancy

## INTRODUCTION

Pregnancy is one of the most delicate phases of a woman's life during which a mother has to take care of a developing foetus in addition to her own health. It's often said that healthy a mother, healthy a child. For maintaining good health during pregnancy, a woman must know about antenatal care so that she can take appropriate measures to safeguard her and her child's health. Antenatal care provides an opportunity for the

healthcare providers for improving a mother's health by imparting knowledge, care, screening of diseases and health promotion.<sup>1</sup> Government has from time to time initiated a lot of programs for the wellbeing of a mother and her child.<sup>2</sup> JSY (Janani Suraksha Yojana) was launched in India in the 2005 with aim of decreasing maternal and infant mortality by promoting institutional deliveries. Cash benefit is also provided to mothers under this scheme. Under Janani Shishu Suraksha Karyakram (JSSK), there are free deliveries and treatment with no expense on the mother. But many women are not aware

of what needs to be done during pregnancy and even a lot of woman do not seek antenatal care till the time of delivery.<sup>3-5</sup> A study by Nagraheni et al revealed that lack of knowledge about anaemia in pregnancy five times increased the risk of developing anaemia in pregnancy.<sup>6</sup> Therefore knowledge gap about antenatal care can result in adverse consequences in pregnancy and can also affect the developing foetus.

Nandpora is a peri-urban area in Srinagar with a population of 3748 in the year 2018 as per the survey in the area by the subcentre staff. As per the microplan an expected number of 71 females are likely to get pregnant in a year. As the area is a remote one, it's expected that a knowledge gap might be there about care in antenatal period. But this area is under the administrative control of GMC Srinagar and as such a number of awareness activities are conducted in the area on various health issues. Therefore, we wanted to know the effect of such health awareness generation activities in the area which may reflect in the knowledge about the antenatal care and services available in antenatal period. Therefore this study was conducted with the aim of assessing the knowledge in the antenatal period among pregnant women about the antenatal care and services available.

**METHODS**

This cross-sectional study was conducted in the Nandpora area of Block Hazratbal in the year 2018. The area had a population of 3748 in 2018.

$$\text{Taking a birth rate} = 17 \div 1000 \text{ population}$$

$$\text{Live births} = \text{birth rate} \times \text{population}$$

$$\text{Live births in year 2018} = 17 \div 1000 \times 3748 = 63.716$$

$$\begin{aligned} \text{Number of pregnant women} &= \text{number of live births} \\ &+ 10\% \text{ of number of live births} \end{aligned}$$

Therefore,

$$\text{total expected pregnant women in year 2018} = 64 + 6.4 = 70.4 = 71$$

**Data collection**

All the women who were pregnant during this year and came to the subcentre Nandpora for registration of pregnancy were included in the study. A predesigned questionnaire was prepared and the women who came for the registration were interviewed according to the questionnaire and the responses noted. Information was collected about the demographic details, education and occupation of the women, details of the pregnancy and the questions related to knowledge about the antenatal

care and warning or danger signs in pregnancy. Knowledge about those danger signs was considered to be present which were identified by the woman in response to the question, "Which of the following are the danger or warning signs in pregnancy that may be detrimental to the health of the mother or the foetus?" (following this a list of 11 danger signs was produced and read before the woman in local language). The list of these danger signs was obtained from the review of literature.<sup>7-9</sup> A woman not giving consent for the study was excluded from the study.

Data was entered in microsoft excel 2010 and analysed using Statistical package for social sciences (SPSS) version 23.

**RESULTS**

In our study, we included 55 pregnant women who came to the subcentre for antenatal care in the year 2018. The women registered as pregnant in the area at the time of study were 64. This means that around 86% of the registered pregnant women came for the antenatal visit at the subcentre.

**Table 1: Socio-demographic characteristics of the study population.**

Socio-demographic characteristics	Number (%)	
<b>Age-group (years)</b>	24-29	9 (16.4)
	30-35	27 (49.1)
	36-42	19 (34.5)
<b>Gravida (No. of times conceived)</b>	1	20 (36.4)
	2	22 (40.0)
	3	10 (18.2)
	≥4	3 (5.4)
<b>Years of marriage</b>	≤5	17 (30.9)
	6-10	20 (36.4)
	11-15	10 (18.1)
	≥16	8 (14.5)
<b>Education</b>	Illiterate	37 (67.3)
	Primary	2 (3.6)
	Middle	2 (3.6)
	Secondary	7 (12.7)
	Higher secondary	4 (7.3)
	Graduation	2 (3.6)
<b>Occupation</b>	Professional	1 (1.8)
	House wife	53 (96.4)
	shawl work	1 (1.8)
<b>Monthly income of the family</b>	Tailoring	1 (1.8)
	Up to 10000	32 (58.2)
	10001 to 20000	20 (36.4)
	>20000	3 (5.4)

The socio-demographic characteristics of the study participants are given in table 1.

**Table 2: Knowledge about antenatal care.**

Knowledge about antenatal care		Number (%)
<b>How many antenatal check-ups are required?</b>	At least 4	40 (72.7)
	Don't know	10 (18.2)
	Up to 3	5 (9.1)
<b>Have you heard about tetanus injection?</b>	Yes	54 (98.2)
	No	1 (1.8)
<b>How many doses of tetanus are usually necessary?</b>	1	2 (3.6)
	2	46 (83.6)
	3	6 (10.9)
<b>Is Iron Folic acid necessary for pregnant women?</b>	Yes	49 (89.1)
	No	1 (1.8)
	Don't know	5 (9.1)
<b>How many tablets should be taken by a pregnant woman in the antenatal period?</b>	100	5 (9.1)
	180	3 (5.5)
	30	3 (5.5)
	50	1 (1.8)
	60	1 (1.8)
	70	2 (3.6)
	80	5 (9.1)
	Don't know	35 (63.6)
<b>At which month do you start IFA tablets?</b>	3 months	3 (5.5)
	4th month	8 (14.6)
	5th months	1 (1.8)
	6th months	2 (3.6)
	don't know	41 (74.5)
<b>Is weight monitoring necessary during pregnancy?</b>	Yes	31 (56.4)
	Don't know	24 (43.6)
<b>What is the ideal place of delivery in your opinion?</b>	Home	1 (1.8)
	Hospital	54 (98.2)

Most of the women were in the age group of 30-35 years (about 49%). Age range was from 24 to 42 years. Mean age was 33 years with a standard deviation of 4.6 years. About of 40% of the women were pregnant for second time followed by 36.4% who were pregnant for the first time.

Range of years of marriage was 0-18 years with about 36.4% in the 6-10 years of marriage and about 31% within first 5 years of marriage.

About 67% of the women were illiterate and almost all were home makers. Monthly Family income was Rs.10000 or less for more than 50% of the subjects.

Table 2 shows the knowledge about antenatal care among the pregnant women.

About 73% of the women were aware that at least 4 antenatal check-ups are recommended in the antenatal period. About 18% of the subjects did not know it. All but

one female had heard about tetanus injection of whom about 84% knew that two doses of the tetanus injection are required. About 89% of the women said that IFA tablets are necessary in the antenatal period. About 9% of the women said that 100 tablets are to be taken while 5.5% said that 180 IFA tablets are required to be taken in the antenatal period. About 15% of the subjects were aware that IFA tablets should be started from the 4th month of pregnancy.

About 56% of the women were aware that weight monitoring is necessary in the antenatal period. Almost for all women hospital was the ideal place of delivery.

Table 3 shows the warning signs that the pregnant women knew of and enumerated. About 51% of the women were aware of the bleeding per vaginum as being the warning sign in pregnancy. Fever and convulsions were reported as warning signs by about 49% of the subjects. The knowledge about other danger signs was lesser among the females.

**Table 3: Warning signs identified by pregnant females?**

Warning signs identified by pregnant females?	Number (%)
<b>Bleeding per vaginum</b>	28 (50.9)
<b>Fever</b>	27 (49.1)
<b>Convulsions</b>	27 (49.1)
<b>Decreased foetal movements</b>	26(47.3)
<b>Difficulty in breathing</b>	24 (43.6)
<b>Leaking of amniotic fluid</b>	23 (41.8)
<b>Severe nausea and vomiting</b>	22(40.0)
<b>Severe headache</b>	21 (38.2)
<b>Severe abdominal pain</b>	21 (38.2)
<b>Swelling of in fingers, feet and legs</b>	10 (18.2)
<b>Blurred vision</b>	7 (12.7)

## DISCUSSION

The aim of this study was to assess the knowledge in the antenatal period among pregnant women about the antenatal care and services available. In our study about 86% of the registered women came for antenatal visit to the subcentre. All these women were included in this study. Most of these women had either their first or second pregnancy. When a woman is pregnant, she usually tries to explore do's and don'ts of pregnancy and gather information. The same thing was tried to be explored in the present study as to how much did the women know about the antenatal care. Most of the women in our study were illiterate (67%), therefore some knowledge gap among these women was expected. It has been found that women with less education are less likely to avail antenatal services.<sup>3</sup> About three-fourths of the women knew that at least 4 antenatal check-ups are necessary and most (89%) women also knew about the importance of IFA tablets but very few women knew the

number of tablets to be taken. Studies show that low knowledge about IFA supplementation results in low compliance.<sup>10,11</sup> Majority of the women (84%) knew that two doses of the tetanus injection are required. A substantial decrease in neonatal mortality in India can be achieved by increase in the uptake of TT by pregnant women.<sup>12</sup> For almost all women hospital was the ideal place of delivery. All this reflects that knowledge about antenatal care was adequate as the most important questions about the antenatal care (viz number of antenatal visits, doses of tetanus injection, requirement of IFA, weight monitoring, ideal place of delivery) were rightly answered by more than 70% of the women. But an ideal scenario would be having no knowledge gap. Even if a single woman is affected because of lack of knowledge, it may mean a loss of life (maternal mortality), a low birth weight baby, or a new born death (infant mortality). Therefore this knowledge gap must be addressed at the earliest.

Among the warning signs, most women were unaware about most of the warning signs in pregnancy. About 51% of the women knew that bleeding per vaginum is a warning sign, while about the other warning signs, most women were unaware. The awareness about other warning signs was less than 50%. A study conducted by Teng et al reported that 83.70% of pregnant women in Malaysia had adequate knowledge of obstetric danger signs.<sup>13</sup> Another study conducted in Hyderabad, reported that about 73.50% of pregnant women had knowledge of warning signs in pregnancy.<sup>14</sup> Therefore in our study, most women knew about the antenatal care and what ought to be done in this period but majority of the women did not know about the danger signs of pregnancy. This is probably because care is received practically by the patient while all the warning signs are not experienced by all pregnant females and are knowledge based which must be told to the pregnant woman. It reflects lack of adequate communication between the health providers and receivers. This low knowledge is very alarming and efforts should be made to improve the knowledge of these women about the warning signs so that appropriate care is received at proper time. Lack of knowledge about the warning signs can be detrimental for the maternal and foetal health. Low knowledge about danger signs of pregnancy has been found in other studies as well.<sup>9</sup>

### **Limitations**

The sample size was small but it was so because the area where the study was conducted is remote and according to the population of the area, a good number of pregnant females participated in the study. The results were kept descriptive owing to small sample size.

### **CONCLUSION**

The women in our study had adequate knowledge about the antenatal care but there was low knowledge among the pregnant females about the danger signs in pregnancy.

The healthcare workers must be involved in improving the knowledge about danger signs of pregnancy by giving one to one knowledge to the pregnant females when they come for antenatal visit and also creating awareness in the community.

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