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Original Research Article

Antenatal care awareness among rural pregnant women of Uttar Pradesh, India: a community-based study

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ABSTRACT

Background: A great deal of research evidence indicates that inappropriate antenatal care (ANC) increases the likelihood of maternal morbidity and maternal mortality. The adverse effects can be minimized if pregnant women are aware to ensure necessary registration, regular antenatal check-ups, and early diagnosis of high-risk pregnancy. The present study was conducted to explore the ANC awareness of pregnant women and its association with socio-demographic factors.

Methods: A cross-sectional community-based study was conducted on 605 pregnant women who registered were at the primary health center (PHC) of Harhua block of Varanasi district, Uttar Pradesh. The self-developed ANC awareness schedule (ACAS) was used to assess the ANC awareness of pregnant women. Statistical analysis was performed using statistical package for the social sciences (SPSS) version 20 software.

Results: Among 605 study participants, the majority of them (62.48%) were in the age group of 20–25 years. Out of 10.74% of study participants were illiterate while only 21.65% were graduated. Most of the pregnant women were from the lower middle class (44.30%), and only 3.47% belonged to the upper class. The study reveals that 57.36% of pregnant women were found to be aware of ANC. Out of 86.61% of pregnant women knew that regular antenatal check-up was necessary once they became pregnant. Socio-demographic variables such as category, education, occupation, and socioeconomic status of pregnant women were found to be significantly associated with ANC awareness.

Conclusions: The level of awareness regarding ANC among pregnant women was not found satisfactory. They do not have proper knowledge and awareness about the various parameters of ANC. Improving awareness of ANC among pregnant women will enable them to detect high-risk pregnancies at the right time, which will also increase their chances of a healthy delivery.

Keywords: Antenatal care, Pregnant women, High-risk pregnancy

INTRODUCTION

The pregnancy period is one of the happiest events in every woman's life. Every mother wants her pregnancy period to be healthy and smooth, but the experiences of pregnancy is not the same for all mothers. Pregnancy is a physiological condition that involves the life of both the mother and the growing fetus, so great care needs to be

taken during this period. Getting early and regular antenatal care (ANC) improves the chances of a healthy pregnancy. ANC is an essential process to protect the health of mother and their upcoming child.^{1,2} ANC provides an opportunity for pregnant women to learn from skilled health workers about healthy behavior during pregnancy and better understanding of warning signs associated with pregnancy and childbirth. It also helps to

diagnose and treat pre-existing health problems, proper nutritional intake, and health care during pregnancy.³

The World Health Organization (WHO) recommends at least four ANC visits during pregnancy for ANC by a skilled health care professional to advise and monitor the health and well-being of both the mother and the developing fetus.⁴ During this visit, the health professional should ensure tetanus toxoid (TT) vaccination, screening and treatment for infection, and identification of warning signs during pregnancy.⁵ The WHO reported that approximately 830 women die every day all over the world from causes related to pregnancy and childbirth. Most of these deaths occur in developing countries, particularly in South Asia and sub-Saharan Africa.⁶ Moreover, evidence indicated that inappropriate ANC increases the likelihood of maternal mortality ratio (MMR) occurring.⁷⁻⁹ India, despite significantly reducing maternal mortality, from 385 per 100,000 live births in 1990 to 216 per 100,000 live births in 2015, still ensuring universal access to maternal health services for all remains a big challenge.¹⁰

However, in India, the proportion of at least four ANC visits increased from 43.9% in 2005-2006 (NFHS-3) to 58.6% in 2015-2016 (NFHS-4).¹¹ Early diagnosis and treatment through regular antenatal check-ups can play important role to prevent a high-risk pregnancy and its complications. Maternal morbidity and maternal mortality can be significantly reduced if pregnant women will be aware and ensure necessary registration, regular antenatal check-ups, early diagnosis of high-risk pregnancy, timely immunization, healthy diet, and intake of iron-folic acid tablets.¹²⁻¹⁴ In the light of these arguments and discussion, the present study was conducted to explore the ANC awareness of pregnant women and its association with socio-demographic factors.

METHODS

Study population

The population of the present study included all pregnant women who registered in all sub-centres of the primary health center (PHC) of Harhua block, Varanasi district Uttar Pradesh during the data collection period.

Study design

The present study was primarily conducted to explore the ANC awareness among pregnant women and its association with socio-demographic characteristics. To achieve the above goals, the researcher used a community-based cross-sectional research design and face-to-face interview technique to collect required data.

Sample size

The sample size was determined by the assumption that approximately 50% of the pregnant women were aware on ANC with 5% marginal error and 95% CI and none

response rate of 10%. Based on this assumption, the actual sample size for the study was determined using below formula.

$$n = (Z_{\alpha/2})^2 pq / d^2$$

Where n is sample size, z is z value corresponding to a 95% level of significance is 1.96, p is expected proportion of pregnant women awareness on ANC is 50% which equals to 0.5.

$$q = (1 - p) = (1 - 0.5) = 0.5$$

Also, d is absolute precision (5%), and none response rate is 10%.

Therefore, from the above formula, sample size is given by.

$$n = 384 + 38 = 422$$

Finally, 605 pregnant women were included in this study, who were the part of another research study conducted by the researchers on the prevalence of high-risk pregnancy. The taken sample size was larger than the estimated sample size hence there is a minimum possibility of sampling error in the present study. Multistage random sampling was used in this study. At first stage, one community development block was selected randomly out of eight community development blocks of Varanasi district in Uttar Pradesh. In the second stage, six sub centres were selected randomly from all sub centres of selected community development block (Harhua) by using the simple random sampling. At the last stage, all pregnant women were selected from selected six sub centres.

Data collection tools and procedure

The data collection process began by selecting six sub-centres randomly from all sub centres of the selected community development block (Harhua) Varanasi district. The investigator met the pregnant women one by one who are registered for antenatal checkup in the selected sub centres. After explaining the purpose of the present study and taking the consent of the pregnant women, the data collection process started. The questions were asked in the local language to facilitate the understanding of the respondents.

Investigator herself asked the questions which were stated in the schedule and filled the responses given by the pregnant women. The socio demographic profile schedule (SDPC) was used to collect the background information and socioeconomic status of the study participants. The modified B. G. Prasad's socioeconomic status scale was used to assess the socio-economic status of the study participants. The self-developed ANC awareness schedule (ACAS) was used to assess the awareness of pregnant women about ANC practices such as frequency of antenatal visits, essential supplementation, prevention

from anemia and tetanus, and safe delivery conditions. A total of 10 questions were included in the ACAS. The responses of pregnant women received on all questions were rated as correct, incorrect, and do not know. Those who scored 70% and above correct responses were considered as aware of ANC and who scored below 70% correct responses were considered as not aware of ANC.

Data processing and analysis

The collected data were checked, cleared, and entered into Microsoft excel data sheet software and analysis was done by using statistical package for the social sciences (SPSS) version (20.0). Descriptive analyses such as proportions, percentages, and frequency distribution were used for categorical variables. The chi square test was used to determine the association between awareness of pregnant women on ANC (dependent variable) with socio demographic variables and obstetric data (independent variables). The logistic regression model was used on significantly associated variables. All statistical analyses were considered significant at value of $p < 0.05$.

Ethical issues

Ethical clearance and permission were obtained from the ethical committee of the Institute of Medical Sciences, Banaras Hindu University, Varanasi. Informed consent was obtained from each of the study participants after explaining the nature of the study, its potential benefits and the expected duration of the study. The confidentiality of the participants was maintained throughout the study. Participants of the study were also ensured that their participation was voluntary and that they could leave the study at any time.

RESULTS

Socio demographic and obstetrics characteristics of the pregnant women

Table 1 shows the socio-demographic characteristics of the study participants. The mean age of pregnant women participated in the study was 24.39 ± 3.17 , ranging between 17 and 36 years. Most of the study participants (62.48%) were in the age group of 20-25 years. Most of the pregnant women belonged to OBC category (51.24%), while 35.54% belonged to SC/ST and 13.22% belonged to general category. Most pregnant women belonged to Hindu religion (91.90%) as compared to Muslim religion (8.10%). Nearly two-thirds of the pregnant women (78.68%) were from joint family. The educational status of pregnant women shows that 10.74% of study participants were illiterate while only 21.65% of pregnant women were graduated. Nearly all pregnant women were housewives (97.36%). The modified B. G. Prasad scale was used to classify participants into socioeconomic groups. Most of the pregnant women were from lower middle class (44.30%) and middle class (27.60%), only 3.47% pregnant women belonged to upper class. The gestational age of

pregnant women was reported on the basis of trimester. 39.50% pregnant women were in the second trimester and 60.50% pregnant women were in the third trimester. It is clear from Table 1 that 46.61% pregnant women go for first ANC in first trimester while 52.56% pregnant women go for first ANC in second trimester.

Table 1: Socio-demographic and obstetrics characteristics of pregnant women.

Socio-demographic and obstetrics characteristics	Study participants (n=605)	
	N	%
Age (years)		
<20	20	3.31
20-25	378	62.48
26-30	187	30.91
>30	20	3.31
Category		
General	80	13.22
OBC	310	51.24
SC/ST	215	35.54
Religion		
Hindu	556	91.90
Muslim	49	8.10
Types of family		
Joint	476	78.68
Nuclear	129	21.32
Educational status		
Illiterate	65	10.74
Primary	53	8.76
Secondary	189	31.24
Higher secondary	167	27.60
Graduate	131	21.65
Occupational status		
House wife	589	97.36
Working women	16	2.64
Socioeconomic status		
Upper class	21	3.47
Upper middle class	72	11.90
Middle class	167	27.60
Lower middle class	268	44.30
Lower class	77	12.73
Gestational age		
Second trimester	239	39.50
Third trimester	366	60.50
First ANC visit		
First trimester	282	46.61
Second trimester	318	52.56
Third trimester	5	0.83

ANC awareness of pregnant women

Table 2 shows the detailed information on awareness among pregnant women regarding ANC. 86.61% of pregnant women knew that regular antenatal check-up was necessary once they became pregnant. Two-thirds of

pregnant women (75.54%) were also aware that ANC provides knowledge about the health and medical problem of the mother and her fetus. 70.41% of pregnant women had correct knowledge and 7.27% of pregnant women had incorrect knowledge about the right time to go for their first antenatal checkup. Out of all pregnant women, 60.50% did not know minimum how many times pregnant women should go for antenatal checkups. Only 24.13% of pregnant women had correct knowledge that pregnant women should go at least four times for antenatal checkups during pregnancy. Regarding taking TT injection during pregnancy, 67.93% of pregnant women knew that it is necessary to take TT injection during pregnancy and 53.72% of pregnant women were aware of the right doses of TT injection. Concerning the awareness of pregnant women about the consumption of calcium and iron-folic acid tablet or other supplements, 76.20% of pregnant women thought that these supplements are necessary during pregnancy. Only 27.60% of pregnant women had correct knowledge about the minimum dose of iron-folic acid tablets during pregnancy. A large number of pregnant women (81.65%) were found to be aware that PHC/hospital is the ideal place for pregnant women to deliver her baby.

Association of ANC awareness among pregnant women with respect to their socio demographical characteristic

The findings of the study revealed a statistically significant association of category ($X^2= 10.01$; $p<0.01$), educational status ($X^2=26.75$; $p<0.01$), occupational status ($X^2=6.10$; $p<0.05$) and socioeconomic status ($X^2=10.86$; $p<0.05$) of pregnant women with ANC awareness. Out of 57.36% pregnant women were found to be aware of ANC. The proportion of aware pregnant women about ANC was found to be higher in the case of those pregnant women who belonged general category (63.8%) and OBC category (61.6%) as compared to those pregnant women who belonged to SC/ST category (48.8%). Moreover, ANC awareness was found to be proportionately associated with the higher educational status of pregnant women. 70.2% of graduate pregnant women were found to be aware of ANC while only 33.8% of illiterate and 49.1% of primary educated pregnant women were found to be aware of ANC. The finding revealed that working pregnant women were found to be more aware as

compared to housewife pregnant women. Similarly, ANC awareness was found to be proportionately associated with the higher socioeconomic status of pregnant women. About two-third of upper socioeconomic class pregnant women were found to be aware of ANC while only 48.1% of lower class and 53.4% of lower middle-class pregnant women were found to be aware of ANC. The findings of the study revealed that age, religion, type of family, and gestational age of pregnant women were not found to be significantly associated with ANC awareness ($p>0.05$).

Logistic regression analysis for predicting ANC awareness

After bivariate analysis, only significantly associated variables were fed into the logistic regression model. The logistic regression model shows that pregnant women who belonged OBC category were 1.49 times more likely to be aware of ANC (AOR=1.49, CI: 1.03-2.17; $p<0.05$) as compared to those pregnant women who belonged to SC/ST category. Similarly, pregnant women who belonged general category were 1.40 times more likely to be aware of ANC (AOR=1.40, CI: 0.80-2.46; $p>0.05$) as compared to those pregnant women who belonged SC/ST category however, this observation was not found to be statistically significant.

In addition, the logistic regression model also revealed that the educational status of pregnant women significantly contributes to ANC awareness. Secondary educated pregnant women were 2.24 times more likely to be aware of ANC (AOR=2.24, CI: 1.23-4.07; $p<0.05$), higher Secondary educated pregnant 2.63 times more likely to be aware of ANC (AOR=2.63, CI: 1.41-4.91; $p<0.01$) and graduate pregnant women 3.60 times more likely to aware about ANC (AOR=3.60, CI: 1.84-7.06; $p<0.01$) as compare to illiterate pregnant women. The finding revealed that occupational status of pregnant women was also significantly contributed to ANC awareness. The logistic regression model shows that working pregnant women were 5.09 times more likely to be aware of ANC (AOR=5.09, CI: 1.10-23.49; $p<0.05$) as compared to house wife pregnant women. Although an increased level of socioeconomic status was associated with an increased likelihood of being aware of ANC, however this observation was not found to be statistically significant.

Table 2: ANC awareness of pregnant women.

S. no.	ANC awareness statement	Responses					
		Correct		Incorrect		Don't know	
		N	%	N	%	N	%
1.	A regular antenatal check-up is must after pregnancy	524	86.61	13	2.15	68	11.24
2.	Cause of visiting antenatal check during pregnancy	457	75.54	61	10.08	87	14.38
3.	Timing of first antenatal check-up	426	70.41	44	7.27	135	22.31
4.	No. of antenatal checkups during pregnancy	146	24.13	93	15.37	366	60.50
5.	TT (tetanus toxoid) injection should be taken during pregnancy	411	67.93	36	5.95	158	26.12
6.	Number of doses of TT injection	325	53.72	58	9.59	222	36.69

Continued.

S. no.	ANC awareness statement	Responses					
		Correct		Incorrect		Don't know	
		N	%	N	%	N	%
7.	Awareness about taking calcium and iron folic acid tablets or other supplements	461	76.20	1	0.17	143	23.64
8.	Reason of taking iron and folic acid tablets during pregnancy	349	57.69	114	18.84	142	23.47
9.	No. of IFA tablets should be taken during pregnancy	167	27.60	22	3.64	416	68.76
10.	Awareness about ideal place for delivery	494	81.65	18	2.98	93	15.37

Table 3: Association of ANC awareness among pregnant women with respect to their socio demographical characteristic.

Socio-demographic characteristics	Not aware		Aware		Chi (X ²)	P value
	N	%	N	%		
All pregnant women	258	42.64	347	57.36		
Age (years)					0.84	0.839
Below 20	7	35.0	13	65.0		
20-25	165	43.7	213	56.3		
26-30	77	41.2	110	58.8		
Above 30	9	45.0	11	55.0		
Category					10.01	0.007
General	29	36.2	51	63.8		
OBC	119	38.4	191	61.6		
SC/ST	110	51.2	105	48.8		
Religion					0.11	0.739
Hindu	236	42.4	320	57.6		
Muslim	22	44.9	27	55.1		
Family type					1.44	0.229
Joint	197	41.4	279	58.6		
Nuclear	61	47.3	68	52.7		
Educational status					26.75	0.000
Illiterate	43	66.2	22	33.8		
Primary	27	50.9	26	49.1		
Secondary	85	45.0	104	55.0		
Higher secondary	64	38.3	103	61.7		
Graduate	39	29.8	92	70.2		
Occupational status					6.10	0.013
House wife	256	43.5	333	56.5		
Working	2	12.5	14	87.5		
Socioeconomic status					10.86	0.028
Upper class	5	23.8	16	76.2		
Upper middle class	27	37.5	45	62.5		
Middle class	61	36.5	106	63.5		
Lower middle class	125	46.6	143	53.4		
Lower class	40	51.9	37	48.1		
Gestational age					0.68	0.408
Second trimester	97	40.6	142	59.4		
Third trimester	161	44.0	205	56.0		

Table 4: Logistic regression analysis for predicting ANC awareness of pregnant women.

Variables in the equation	β	S. E.	P value	AOR	95% C. I.	
					Lower	Upper
Category						
General	0.34	0.29	0.24	1.40	0.80	2.46
OBC	0.40	0.19	0.04	1.49	1.03	2.17

Continued.

Variables in the equation	β	S. E.	P value	AOR	95% C. I.	
					Lower	Upper
SC/ST (ref)	-	-	-	-	-	-
Educational status						
Primary	0.63	0.39	0.10	1.88	0.88	4.01
Secondary	0.81	0.31	0.01	2.24	1.23	4.07
Higher secondary	0.97	0.32	0.00	2.63	1.41	4.91
Graduate	1.28	0.34	0.00	3.60	1.84	7.06
Illiterate (ref)	-	-	-	-	-	-
Occupational status						
Working women	1.63	0.78	0.04	5.09	1.10	23.49
House wife (ref)	-	-	-	-	-	-
Socioeconomic status						
Upper class	0.76	0.58	0.19	2.13	0.68	6.66
Upper middle class	0.13	0.36	0.71	1.14	0.57	2.29
Middle class	0.33	0.29	0.27	1.39	0.78	2.46
Lower middle class	0.06	0.27	0.81	1.07	0.63	1.80
Lower class (ref)	-	-	-	-	-	-

DISCUSSION

The present study was organized to examine the ANC awareness of rural pregnant women and its association with their socio demographical characteristics. The mean age of the antenatal women was 24.39 years and the majority of them were aged between 20-25 years (62.48%). Out of all pregnant women, most of them were Hindu and 51.24% of pregnant women belonged to other backward class (OBC). Almost all pregnant women were housewives (97.36%). Socio demographical characteristics of study participants showed that 21.65% of pregnant women were graduates while only 3.47% of pregnant women belonged to the upper socioeconomic class. In the present study, 46.61% of pregnant women visited their first ANC in the first trimester while 52.56% of pregnant women visited their first ANC in the second trimester. The finding of this study is much similar to the finding of other studies. A study conducted in Karnataka found that 56.5% and 42.9% of women go for ANC registration in the first trimester and the second trimester, respectively.¹⁵ Similarly, another study conducted in North India found that majority of the pregnant women (64.5%) had registered for ANC in the second trimester.¹⁶

The result of the study revealed that most of the pregnant women (86.61%) were aware of the necessity of regular antenatal visits after becoming pregnant and two-thirds of pregnant women (75.54%) were also aware of the potential benefits of ANC. These pregnant women believed that ANC provides information about the risk factors associated with the health of mother and their fetus. Other findings also support the view that most pregnant women are aware of ANC visits and its expected benefits and reported that respondents were aware that every pregnant mother needs to go for antenatal check-up.¹⁷⁻²⁰ Most of the pregnant women (88.5%) acknowledged that ANC offered to both the pregnant women and their unborn baby opportunities to receive routine immunization and routine

drugs for protection against various communicable diseases.²⁰ Although large numbers of research studies have reported high awareness regarding the antenatal visit, at the same time some studies also reported high a ratio (90% to 100%) of actual ANC registration.^{15,16,21}

Pregnant women's awareness about the timing of their first antenatal checkup and minimum ANC visit was also analyzed in the present study. The result revealed that 70.41% of pregnant women had correct knowledge about the right timing for the first antenatal checkup. A similar result was found in Tamil Nadu showing that about 69% of the participants knew the right time for antenatal registration.²² This result was also corroborated by a study conducted in North India in which 86.20% of respondents were aware of early registration but had low awareness (10.90%) of the minimum number of ANC visits among pregnant women.¹⁶ However, the findings of this study contradict the study conducted in South India (urban slum area) which showed that about only 46% of pregnant women were aware of minimum ANC visits.¹⁸ Likewise one more study conducted in Tamil Nadu revealed that 37% of pregnant women knew about the minimum number of antenatal visits.²²

Regarding taking TT injection during pregnancy, 67.93% of pregnant women knew that it is necessary to take TT injection during pregnancy. However, some earlier studies conducted in South India reported that comparatively more pregnant women (about 90%) were aware of taking TT injections during pregnancy.^{18,19} Again in this study 53.72% of pregnant women were found to be aware of the right doses of TT injection, which is in line with the study conducted in Andhra Pradesh.¹⁹ A study conducted in Uttarakhand also showed low ratio of awareness, only 44.44% of pregnant women were agree that TT injection is very important for the care of both mother and baby.¹⁷ On the other hand, a study in New Delhi showed a contradictory result as the large number of pregnant

women (90.7%) knew that two tetanus toxoid doses are required to immunize against tetanus during pregnancy.²³

The result of the study revealed that nearly two-third of pregnant women (76.20%) were aware that calcium and iron folic acid tablets or other supplements are necessary during pregnancy. Similar results were obtained in studies conducted in South India which reported that about two-thirds of pregnant women were aware of the need to take iron and folic acid tablets during pregnancy.^{18,24} This finding is consistent with another study in Pakistan which reported that 80.85% of pregnant women had accurate information about iron and vitamin supplements during pregnancy.²⁵ Although this study found that a good number of pregnant women were aware of the importance of taking IFA tablets, only 27.60% of pregnant women were correctly aware of the minimum dosage of iron folic acid tablets during pregnancy. A similar trend can be seen in some other studies also.^{22,26} As seen in this study, a good number of pregnant women (81.65%) knew that PHC/hospital is the ideal place for pregnant women to deliver their baby. This is corroborated by a study conducted in South India, which reported that 83% of study participants believed that a hospital was the ideal place to give birth.¹⁸

Again, the result of this study revealed that only 57.36% of pregnant women were aware of ANC practices. There is a lot of research that shows a great deal of consistency with this result.^{22,27-29} The present study showed that age, religion, type of family, and gestational age of pregnant women were not significantly associated with ANC awareness of pregnant women. However earlier studies have reported mixed outcomes, some earlier studies have reported that young age pregnant women are more likely to have aware of ANC as compared to elder age pregnant women.^{27,29-31} The result of the study revealed that working women were more likely to be aware of ANC as compared to housewife pregnant women. Similarly, some studies also reported that occupational status, type of family, and religion (Hindu) of pregnant women were associated with ANC awareness.^{23,29,31,32} Working women or women who have their source of income have better access to health-related information.³² Several possible explanations are supporting this finding. As compared to housewife, working women may have better access to the internet, and multimedia as a source of information as well as an opportunity to share their knowledge and health issues with colleagues in their workplace as compared to housewife. Moreover, the present study revealed a significant association of category, educational status, and socioeconomic status of pregnant women with ANC awareness. The logistic regression model revealed that education is the most dominant predictor of ANC awareness. In this study, secondary educated pregnant women were 2.24 times more likely to be aware of ANC, higher secondary educated pregnant women 2.63 times more likely to be aware of ANC, and graduate pregnant women 3.60 times more likely to be aware of ANC as compare to awareness level among illiterate pregnant

women. Several other studies also reported a strong positive impact of socioeconomic status and especially the educational status of pregnant women on the utilization of health services and found the most consistent and important determinant of ANC awareness.^{15,22,23,27,29-31,33-36} Additionally, educated pregnant women are more likely to seek quality health services and have a greater ability to access health facilities that provide better care.³⁷ The educated pregnant women are more able to understand their health issues (identifying danger signs) thus placing more priority on the health of both mother and unborn child.³⁸ There may be several other possible explanations for this finding. Educated women have greater autonomy, self-confidence, and decision-making ability about their health and can easily understand the health-related practices given by the health worker.

Limitations

There are also some limitations of this study. The findings of the study can only be inferred about rural pregnant women attending ANC services. This study was based on self-report of the participants, the information obtained might have less validity and there might be a chance for recall bias. Different awareness level and its associations might be seen if the study is conducted among the other places due to different cultural practices and different socio demographic characteristic. Furthermore, the study design was cross-sectional, so the results should be interpreted with caution as this study does not provide an opportunity to evaluate the causal relationship.

CONCLUSION

The present study concludes that less than half of pregnant women go to the first ANC at the right time. The level of awareness regarding ANC among pregnant women was not found satisfactory. Although most pregnant women believe that regular antenatal check-ups are necessary after pregnancy, they do not have proper knowledge and awareness about the various parameters of ANC. The present study highlights the important role of education and socioeconomic status in awareness of ANC. Therefore, this study emphasizes on conducting health awareness campaigns in rural and backward areas, organizing counselling and health education programs for rural pregnant women near their location and strengthening health care services. It will go a long way in improving the reproductive health status of pregnant women. Improving awareness of ANC among pregnant women will enable them to detect high-risk pregnancy at the right time, which will also increase their chances of a healthy delivery.

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