International Journal of Nursing & Midwifery Research
Volume 10, Issue 4 - 2023, Pg. No. 11-17
Peer Reviewed & Open Access Journal

Research Article

Knowledge and Attitude regarding Antenatal Care among Pregnant Women Attending Health Centres in a Rural Area of PHC Chhuchhakwas of District Jhajjar, Haryana: A Community-based Retrospective Study

Nikash Kumari Kundu[1], Sunita Devi[2], Kavita Devi[3], Ramesh Verma[4]

[1]MSc Nursing Student, Community Health Nursing, College of Nursing, PGIMS, Rohtak
[2,3]Community Lecturer, Department of Nursing, College of Nursing, PGIMS, Rohtak
[4]Professor, Community Medicine, PGIMS, Rohtak.
DOI: https://doi.org/10.24321/2455.9318.202316

I N F O

Corresponding Author:
Nikash Kumari Kundu, Community Health Nursing, College of Nursing, PGIMS, Rohtak
E-mail Id:
nikashkundu@gmail.com
Orcid Id:
https://orcid.org/0009-0001-0495-7390
How to cite this article:
Nikash Kumari Kundu, Sunita Devi, Kavita Devi, Ramesh Verma. Knowledge and Attitude regarding Antenatal Care among Pregnant Women Attending Health Centres in a Rural Area of PHC Chhuchhakwas of District Jhajjar, Haryana: A Community-based Retrospective Study. Int J Nurs Midwif Res. 2023;10(4):11-17.

Date of Submission: 2023-02-07
Date of Acceptance: 2023-04-29

A B S T R A C T

Introduction: The antenatal period is a stressful period for both the mother and the foetus. The outcome of pregnancy is highly dependent on the antenatal care received by the pregnant woman. Hence, good care of women during pregnancy is important for the mother and baby to be healthy at the end of pregnancy.

Aim: The aim of this study was to evaluate the effectiveness of the health programme on knowledge regarding antenatal care among pregnant women attending health centres in district Jhajjar, Haryana.

Material and Methods: The study was conducted using a quantitative approach pre-experimental one-group pre-test and post-test design. Convenient sampling technique was employed. A self-structured questionnaire regarding antenatal care was used in the study. Result: Data were analysed by descriptive and inferential techniques. The mean value of the pre-test knowledge score was 17.40 ± 5.465, whereas the mean value of the post-test was 25.11 ± 4.290. The mean difference between pre-test and post-test knowledge scores was 7.71 which was equal to the table value at 0.05 level of significance. The mean value of the pre-test attitude score was 40.94 ± 4.348, whereas the mean value of the post-test score was 43.04 ± 2.828. The mean difference between pre-test and post-test attitude levels was 2.1 which was equal to the table value at 0.05 level of significance.

Conclusion: The study programme was effective in improving the knowledge and attitude of pregnant women regarding antenatal care.

Keywords: Community-based Health Education Programme, Antenatal Care, Knowledge, Attitude

Introduction

In India, every year, 28 million pregnancies occur, of which 67,000 die due to maternal causes, and one million women are left with chronic illnesses, with one million neonatal deaths. The maternal mortality ratio in India declined to 167 per lakh live births and the neonatal mortality rate reduced to 29 per thousand live births in 2015.[1]

The antenatal period is a stressful period for both the mother and the foetus. The outcome of pregnancy is highly dependent on the antenatal care (ANC) received by the pregnant woman. Hence, good care of women during pregnancy is important to ensure that the mother and baby are healthy at the end of pregnancy. ANC is an important determinant of maternal and perinatal mortality and is an essential component of maternal healthcare.[1]

ANC, in simple terms, refers to the care that is given to an expectant mother from the confirmation of conception to the beginning of labour. It is a type of preventive care with the goal of providing regular check-ups that help healthcare providers in early identification, treatment and prevention of potential health problems throughout the course of pregnancy. Moreover, ANC visits may raise awareness about the need for care during delivery and give women and their families familiarity with the health facilities so that they can seek help more efficiently in case of an emergency.[1]

Regular ANC visits provide health personnel an opportunity to manage the pregnancy. A variety of services such as treatment of pregnancy-induced hypertension (PIH), TT immunisation, prophylaxis and micronutrient supplementation are provided during ANC. ANC attendance among pregnant adolescents is particularly important as complications during pregnancy and childbirth have been shown to be a major cause of death among girls aged 15–19 years in low-income and middle-income countries.[1]

Focused Antenatal Care (FANC) is a new, goal-oriented model of antenatal clinic attendance, introduced by the World Health Organisation in 2002, which reduces the number of required antenatal visits to four, and provides focused services shown to improve maternal outcomes.[1] All four antenatal clinic visits in FANC have specific items of client assessment, education and care to ensure early detection and prompt management of complications. In an attempt to overcome challenges by the traditional model women who are at risk of developing complications.[1]

There is considerable regional diversity in cultural beliefs, availability and quality of health services in the country, that affects the utilisation of these services. Effective ANC can improve the health of the mother and give her a chance to deliver a healthy baby. Regular monitoring during pregnancy can help detect complications at an early stage before they become life-threatening emergencies. Lack of finances, transportation problems, and unwilling husbands and family members whose permission is often required to go to a health centre, are some of the major social barriers faced while accessing care.[2]

ANC provides a wide range of health services such as nutritional maintenance, prevention or treatment of anaemia, prevention, detection and treatment of malaria, tuberculosis and sexually transmitted infections. Adequate use of these services is associated with improved maternal and neonatal health status.[3]

It is an opportunity to promote the benefits of skilled birth attendance and to encourage women to seek postpartum care for themselves and their newborns. It is also an ideal time to counsel women about the benefits of child spacing.[4,5] It provides an estimate of essential health issues, including health promotion, disease prevention, screening, and diagnosis.[6] The knowledge of pregnant mothers may be a major factor in determining the extent of antenatal services used.[7] The attitude of pregnant women refers to the affective feelings of expectant mothers who like and dislike prenatal services. It may be positive or negative.[8]

Very few studies have been carried out in India, especially about this aspect of maternal health and hence data in this regard are barely available. Maternal health was one of the most important millennium development goals that India didn't achieve by the year 2015. In India, full ANC utilisation is only 21% and in Haryana, it is only 19% (NFHS-4), which is far below the satisfactory level. With this background, the present study was conducted to determine the knowledge and attitude scores regarding ANC among pregnant women, to assess their awareness of their own health, and to study the sociodemographic determinants responsible for full ANC utilisation.

Need of the Study

Maternal health remains a staggering challenge, particularly in the developing world. Globally, a woman dies from complications in childbirth every minute. Hence knowledge about ANC is essential to improve the health status of pregnant women.

It has been observed that Chhattisgarh had the maximum proportion of pregnant women (83.9%) registering for ANC in 2012–13, while Uttar Pradesh achieved 61.9% registration. Home-based births have witnessed modest reductions as the AHS 2012–13 noted that in five of the AHS states, the levels of home delivery continue to be over 40%.[9]

In Chhattisgarh and Jharkhand, the levels of home delivery are very high at 59.4% and 53.4%, respectively. Although Uttarakhand performs relatively better than the other AHS states, it also shares a very high proportion of births (40.1%).

ISSN: 2455-9318
DOI: https://doi.org/10.24321/2455.9318.202316

The lowest proportion of home delivery has been observed in Madhya Pradesh (17%). Institutional deliveries across AHS states ranged between 39.5% in Chhattisgarh and 83% in Madhya Pradesh. The data revealed that public health facilities have been mostly accessed for delivery care, whereas a smaller proportion of deliveries have been conducted at private health care facilities. Postnatal Care (PNC) is another aspect of maternal health that merits utmost attention.[9]

To encourage institutional deliveries, the government launched the Janani Suraksha Yojana (JSY), and an upward trend was observed in the number of women who availed its benefits. In fact, a study of three successive years suggests that the rate of women who received PNC increased over the years. Odisha, demonstrating the finest levels of both PNC and JSY, has displayed exemplary levels of maternal health.[9]

It is further ascertained that districts with higher overall and female literacy rates perform better in maternal health and health care utilisation. In particular, such districts display higher utilisation of ANC and institutional delivery care. However, improving the consumption of iron-folic acid (IFA) tablets during pregnancy remains a prominent concern across districts.[9]

Access and utilisation of healthcare services during pregnancy and childbirth are critical in determining the health of both the expectant mother and the unborn child. In this regard, an overview of maternal health status could be presented through an assessment of key indicators such as ANC, delivery care, and PNC.[9]

The maternal health status of Indian women was noted to be lower as compared to other developed countries. The promotion of maternal and child health (MCH) has been one of the most important components of the Family Welfare Programme of the Government of India. For sustainable growth and development of the country, there is a need to improve MCH care. Safe motherhood by providing good ANC is very important to reduce maternal mortality ratio and infant mortality rate and to achieve millennium development goals.[9]

Based on the above information, it was realised that most of the pregnant women have poor knowledge and negative attitudes regarding antenatal care. Thus, this study was proposed to improve the knowledge and attitude of antenatal mothers regarding antenatal care.

Research Methodology

Research Design

The research design for this study was one-group pre-test post-test design.

Sample

The sample of the study comprised of 100 pregnant women.

Data and Sources of Data

The study was conducted on pregnant women who were attending the selected health centres in a rural area of district Jhajjar in Haryana. The data were collected from March 20, 2022 to April 16, 2022. Convenient sampling technique was used to select the sample. The subjects who met the designed inclusion criteria were included in the study. These study subjects were consulted personally by the investigator. They were explained about the purpose and the nature of the study. Informed and written consent was obtained from them before enrolling them in the present study.

A self-structured knowledge questionnaire was used to assess the knowledge of pregnant women about antenatal care and an attitude scale was used to assess their attitude towards antenatal care.

Inclusion Criteria

1. Pregnant women (both primi and multigravida)
2. Women who were in the age group of 18–45 years
3. Women who were available at the time of data collection
4. Women who were willing to participate in this study
5. Women could understand Hindi or English

Exclusion Criteria

1. Pregnant women who were not willing to participate in the study
2. Pregnant women with a previous history of high-risk pregnancy

Results and Discussion

Distribution of Sample According to Sociodemographic Variables.

Table 1.Distribution of Participants as per their Demographic Characteristics

Demographic Characteristics	Frequency	Percentage
Age of mother (in years)		
a) < 20	7	7
b) 21–25	52	52
c) 26–30	29	29
d) > 30	12	12
Educational status of mother		
a) Illiterate	0	0
b) Primary	7	7

ISSN: 2455-9318
DOI: https://doi.org/10.24321/2455.9318.202316

c) High school	57	57
d) Graduate and above	36	36
Occupation of mother		
a) Homemaker	76	76
b) Private job	6	6
c) Government job	7	7
d) Others	11	11
Educational status of father		
a) Illiterate	0	0
b) Primary	5	5
c) High school	57	57
d) Graduate and above	38	38
Occupation of father		
a) Farmer	19	19
b) Private job	36	36
c) Government job	21	21
d) Others	24	24
Religion		
a) Hindu	100	100
b) Muslim	0	0
c) Sikh	0	0
d) Christian	0	0
Type of family		
a) Nuclear	68	68
b) Joint	32	32
Monthly family income (in INR)		
a) < 10,000	39	39
b) 10,000–20,000	29	29
c) 20,001–30,000	12	12
d) > 30,000	20	20
Gravida		
a) Primigravida	49	49
b) Multigravida	51	51
Do you have any prior knowledge regarding antenatal care?		
a) Yes	68	68
b) No	32	32
If yes, what is the source of your information? Previous pregnancy	23	23
Healthcare worker	16	16

Table 1 reveals that the maximum number of pregnant women (52%) belonged to the age group of 21–25 years, followed by 29% in the age group of 26–30 years, 12% in the age group of more than 30 years, and 7% in the age group of less than 20 years. The maximum number of pregnant women had studied up to high school (57%), followed by 36% who were graduates and above. No subject was illiterate. Out of 100 participants, 76% were homemakers, followed by 6% doing private jobs, 7% doing government jobs, and 11% doing other work. It was seen that the maximum number of fathers (57%) had an education up to high school, followed by 38% who were graduates. Most (36%) of the fathers had private jobs, followed by 21% who had government jobs, 19% who did farming, and 24% who did other work.

All the pregnant women were Hindu. It was seen that most (68%) of the antenatal women belonged to nuclear families and 32% belonged to joint families. Among the study subjects, 39% had a monthly family income of less than 10,000 INR, 29% had 10,000–20,000 INR, 12% had 20,001–30,000 INR, and 20% had more than 30,000 INR.

The study findings showed that out of 100 pregnant women, 49% were primigravida and the rest of them (51%) were multigravida. It was observed that 68% of subjects had previous knowledge regarding ANC, of whom, 23% had knowledge due to previous pregnancy, 16% had knowledge from healthcare workers, and 29% had knowledge from family members. The rest of the subjects (32%) did not have previous knowledge regarding ANC.

Assessment of Knowledge

Table 2 shows the association of the scores obtained by the respondents and their level of knowledge.

Table 2.Level of Knowledge of Participants as per Their Scores

Score	Level of Knowledge
0–11	Inadequate
12–22	Moderate
23–33	Adequate

Table 3.Pre-test and Post-test Knowledge of Antenatal Women

(N = 100)

Level of Knowledge	Pre-test		Post-test	
	Frequency	Percentage	Frequency	Percentage
Inadequate	11	11	0	0
Moderate	74	74	22	22
Adequate	15	15	78	78
Total	100	100	100	100

ISSN: 2455-9318
DOI: https://doi.org/10.24321/2455.9318.202316

The findings of the present study revealed that in the pre-test, 11% of participants had inadequate knowledge, 74% had moderate knowledge, and 15% had adequate knowledge regarding ANC (Table 3). The post-test conducted after the administration of the community-based health education programme showed that 78% of the subjects had adequate knowledge and 22% had moderate knowledge regarding ANC.

Pre-test and Post-test Attitude Levels of Pregnant Women

The categorisation of the attitude of participants as per the scores has been shown below:

15–25: Negative attitude
26–35: Neutral attitude
36–45: Positive attitude

Table 4.Pre-test and Post-test Attitude of Antenatal Women

(N = 100)

Level of Attitude	Pre-test		Post-test	
	Frequency	Percentage	Frequency	Percentage
Positive	83	83	95	95
Neutral	17	17	5	5
Negative	-	-	-	-

The pre-test showed that 83% of women had a positive attitude regarding ANC and 17% had a neutral attitude (Table 4). No subject had a negative attitude regarding ANC. The post-test assessment showed that 95% of participants had a positive attitude and 5% had a neutral attitude.

Findings related to the Effectiveness of Community-based Health Education Programme on Level of Knowledge and Attitude regarding Antenatal Care among Pregnant Women

The findings of the present study showed that the mean value of the overall pre-test knowledge scores was 17.40 ± 5.465, whereas the mean value of the post-test knowledge scores was 25.11 ± 4.290 (Table 5). The mean difference between pre-test and post-test knowledge scores was 7.71 which was equal to the table value at 0.05 level of significance.

The mean value of the overall pre-test attitude scores was 40.94 ± 4.348, whereas the post-test mean value was 43.04 ± 2.828 (Table 6). The mean difference between pre-test and post-test attitude levels was 2.1 which was equal to the table value at 0.05 level of significance.

Hence, it can be concluded that there was a statistically significant difference between pre-test and post-test knowledge scores.

Findings regarding the Association between the Pre-test Knowledge and Attitude Scores regarding Antenatal Care among Pregnant Women with their Selected Sociodemographic Variables

The chi-square test was used to determine the association of knowledge and attitude scores with selected sociodemographic variables. The knowledge scores were found to have no significant association with age, educational status of mother, education status of father, occupation of mother, occupation of father, religion, type of family, monthly family income, gravida status, and source of information regarding antenatal care.

Hence there was no significant relationship between pre-test knowledge and selected demographic variables. However, the educational status of the mother was found to have a significant association with the pre-test attitude scores (significant at $p < 0.05$) (Table 7).

Table 5.Comparison of Pre-test and Post-test Knowledge Scores

(N = 100)

Pre-test Knowledge		Post-test Knowledge		Mean Difference	df	t Value
Mean	SD	Mean	SD	7.71	99	19.327[NS]
17.40	5.465	25.11	4.290			

[NS] Not significant at 0.05 level of significance

Table 6.Comparison of Pre-test and Post-test Attitude Scores

Pre-test Attitude		Post-test Attitude		Mean Difference	df	t Value	Table Value
Mean	SD	Mean	SD				
40.94	4.348	43.04	2.828	2.1	99	7.584	123.2

ISSN: 2455-9318
DOI: https://doi.org/10.24321/2455.9318.202316

Table 7.Association between Pre-test Knowledge and Attitude Scores regarding Antenatal Care among Pregnant Women with Education of Mother

Sociodemographic Variables		Level of Attitude			Association with Level of Attitude				Remark
Variable	Categories	Negative (%)	Neutral (%)	Positive (%)	Chi-square	p Value	Table value	df	
Education of mother	a) Illiterate	-	-	-	48.50	0.0047	38.88	26	Significant
	b) Primary	-	4	2					
	c) High school	-	13	45					
	d) Graduate and above	-	-	36					

Limitations

The limitations of the study are:

- The sample was selected from a specific geographic area which limits the generalisation of the study (pregnant women attending selected health centres in a rural area of district Jhajjar only).
- The study did not use any control group.
- The study period was short.
- The study was limited to 100 pregnant women.
- The study included women having normal pregnancies only.

Recommendations

- On the basis of the findings of the study, the following recommendations have been made:
- A similar study can be replicated on a large sample to generalise the findings.
- A similar study can be conducted using experimental and control groups.
- A comparative study can be conducted on participants from rural and urban areas.
- A similar comparative study can be undertaken between the women who are utilising antenatal care facilities and those who are not utilising these facilities.
- A general survey can be conducted to see the factors associated with and the prevalence of antenatal care utilisation.

Conclusion

The study has shown that a community-based health education programme is very effective in improving the knowledge and attitude of pregnant women regarding antenatal care. It was also concluded that there was no significant relationship/ association between the pre-test knowledge score and pre-test attitude score with selected sociodemographic variables of pregnant women except for the association of the educational status of mothers with the pre-test attitude score.

Source of Funding: None

Conflict of Interest: None

References

1. Vashisht BM, Bhardwaj H, Chauhan M, Anvesha, Jaiprakash. Socio-demographic determinants of full antenatal care services utilization among pregnant women delivering at a tertiary care hospital in Haryana. Int J Public Health Res. 2019;6(4):139-45. [Google Scholar]
2. Singh B, Panda M, Vashisht BM, Bhatt B, Panda SS. Practices related to delivery and antenatal care among females in rural block of Haryana. Int J Ther Appl. 2013;10:23-7. [Google Scholar]
3. World Health Organization. Advocacy brief: in family planning/child birth spacing for health and national development action points for policymaker? Federal Ministry of Health, ENHANCE project/USAID; 2007. p. 1309-15.
4. United Nations Children's Fund. Progress for children: a report card on maternal mortality. UNICEF; 2008. [Google Scholar]
5. Reynolds HW, Wong EL, Tucker H. Adolescents' use of maternal and child health services in developing countries. Int Fam Plan Perspect. 2006;32(1):6-16. [PubMed] [Google Scholar]

6. World Health Organization. Consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection: recommendations for a public health approach. 2nd ed. World Health Organization; 2016. [PubMed] [Google Scholar]
7. Okafor EC. Attitude and practice of health care professionals, regarding HIV and AIDS in Abie state hospitals. 2016.
8. Onasoga OA, Afolayan JA, Oladimeij BD. Factors influencing utilization of antenatal care services among pregnant women in Ife Central Lga, Osun State, Nigeria. Adv Appl Sci Res. 2012;3(3):1309-15. [Google Scholar]
9. Office of Registrar General & Census Commissioner, Ministry of Home Affairs, Government of India. Annual Health Survey Report: a report on core and vital health indicators: part I: maternal and child health. 2012-2013 (14-15).

ISSN: 2455-9318
DOI: https://doi.org/10.24321/2455.9318.202316