

## A Descriptive Study to Assess the Knowledge Regarding Management of Anaemia in Pregnancy among Antenatal Women Attending Antenatal Clinic at Selected Hospital of Jamuhar, Bihar

Priyesh Kumar Gautam<sup>1</sup>, Puja Kumari<sup>1</sup>, Rajni Kumari<sup>1</sup> and Lisy Joseph<sup>2\*</sup>

<sup>1</sup>B.Sc. Nursing 4<sup>th</sup> year student, Narayan Nursing College, Gopal Narayan Singh University, Sasaram, Jamuhar, Bihar, India

<sup>2</sup>Ph.D. (Nursing), Professor & HOD, Department of Community Health Nursing, Narayan Nursing College, Gopal Narayan Singh University, Sasaram, Jamuhar, Bihar, India

**\*Corresponding Author:** Lisy Joseph, Ph.D. (Nursing), Professor & HOD, Department of Community Health Nursing, Narayan Nursing College, Gopal Narayan Singh University, Sasaram, Jamuhar, Bihar, India.

**Received:** April 20, 2023; **Published:** April 25, 2023

**DOI:** 10.55162/MCMS.04.125

### Abstract

**Background:** Pregnancy and child birth are special events in women's life and indeed in the lives of their families. This can be a time of great hope and joyful anticipation. The primary aim of antenatal care is to achieve, at the end of pregnancy, a healthy mother and baby. The quality of care is more important. Pregnancy requires specialized care generally agreed to preventive activity.

**Aim:** To assess the knowledge regarding management of anaemia in pregnancy among antenatal women attending antenatal clinic at selected hospital of Jamuhar, Bihar.

**Objectives:** To assess the level of knowledge regarding anemia in pregnancy among antenatal women and to find the association between the level of knowledge about anemia in pregnancy among antenatal women.

**Methods:** 60 antenatal women attending the antenatal clinic of Narayan Medical College hospital, Jamuhar, Bihar were selected using non-probability purposive sampling technique and were given self-reported questionnaire to assess the knowledge about anaemia in pregnancy.

**Results:** The present study highlighted that among 60 antenatal women, majority 24(40%) of them had inadequate level of knowledge, 34(56.66%) of them had moderately adequate knowledge and 2(3.33%) of them had inadequate knowledge.

**Conclusion:** This study concluded that most of the antenatal women had moderate level of knowledge about prevention and management of anaemia which emphasises the need for creation of knowledge among antenatal women to bring forth better maternal and fetal outcomes.

**Keywords:** Anaemia; antenatal women; knowledge on anaemia

### Introduction

Antenatal care plays a critical role in preparing woman and her family for birth by establishing confidence between the woman and her health care provider. Antenatal care is considered essential for health of both the mother and the child, it is important to analyse the possible factors contributing to its utilization.

WHO classifies anaemia into three categories based on haemoglobin concentration. For pregnant women if haemoglobin concentration is 11 or higher, she is considered as non- anaemic, whereas pregnant women with 10.0-10.9 is mild anaemic, 7.0-9.9 is moderately anaemic and lower than 7.0 is in severely anaemic.

Anaemia affects both developed and developing countries globally. In a descriptive study conducted at Hyderabad that assessed the incidence and outcome of anaemia in pregnant women (Vanamala, 2018) showed that of 296 pregnant women, 143 of them had anaemia and the interval between two consecutive pregnancy was less than a year. Approximately 21.7% of pregnant women who had more than 3 conceptions been found to be anaemic. The fetal complication of low birth weight was seen among 56.6% of the moderately anaemic mothers.

Antenatal care refers to pregnancy related health care provided by a doctor or a health worker in medical facility or at home set up. Antenatal care should monitor a pregnancy for signs of complication detect and treat pre-existing and concurrent problems of pregnancy. It should also provide advice and counselling or preventive care, diet during pregnancy, delivery care, postnatal care and related issues. An antenatal care is necessary for ensuring a healthy mother and baby at the end of gestation. The antenatal period is a time of physical and psychological preparation of birth and parenthood. Becoming a parent is a time of intense learning both for parents and for those close to them.

Promotion of maternal and child health has been one of the most important components of the family Welfare Programme of the Government of India and the National Population Policy. One of the most important components of antenatal care is to offer information and advice to women about pregnancy related complications and possible curative measures for early detection and management of complications. (N. C. Saxena 2015).

A prospective observational cohort study found that of 72,750 women, enrolled from 2009 to 2016, in 20 rural primary health centres in four eastern districts of Maharashtra, 90% had anaemia and the biggest risk factor was the women's weight. Underweight women had an increased risk of maternal complications. Mild anaemia at any time of delivery was also found to increase the risk for neonatal complications (Archana, 2018).

## **Methods and Materials**

A self-reported questionnaire was used to assess the knowledge regarding management of anaemia in pregnancy among antenatal women was used for this study. Based on the study inclusion criteria and using a non-probability purposive sampling technique 60 antenatal women attending antenatal OPD of Narayan Medical College Hospitals, Jamuhar, Bihar were selected to participate in the study.

The approval to conduct the study at antenatal OPD of Narayan Medical College Hospitals was obtained from Dean cum Principal, College of Nursing, the Head of the Obstetrics and Gynaecology department, Medical Director and Departmental Head in Nursing. Then an approval to conduct a study was obtained from Nursing Research Monitoring Committee for student's project (Ethical reference number – NNC/NRMC/BSC/2022/2575). Confidentiality was maintained throughout the study. The period of data collection was from 01.02.2023 to 23.02.2023. The purpose of the study was explained, written consent was obtained from participants prior to data collection. Data on background variables, their knowledge regarding management of anaemia in pregnancy were collected using self-reported questionnaire.

### ***The instrument consisted of two parts.***

#### ***Part I: Background variable questionnaire***

Demographic characteristics of antenatal women included information about the participant's age, education, occupation, type of family, family income, dietary pattern and gestational age.

#### ***Part II: Questionnaire on Knowledge regarding management of anaemia***

The knowledge regarding management of anaemia questions were developed by the researcher for this study to measure the knowledge regarding general awareness about anaemia (6 items), investigations and treatment (8 items), prevention and complications of iron deficiency anaemia (6 items). It consisted of structured interview schedule and had 20 multiple choice questions. Tool was vali-

dated by 5 experts, from specified fields such as OBG and Gynaecology and members of ethics committee. The Investigator modified the final tool based on experts' suggestions and results of pilot study. The tool is translated from English to Hindi and to confirm the appropriateness of the language used in framing the items.

### Scoring and interpretation.

Knowledge regarding management of anaemia questionnaire

The total mark for knowledge regarding anaemia questionnaire was 20. One mark was given for every correct answer and score of zero was given for every wrong answer. The scores ranged as follows.

Adequate knowledge - a score from 76 to 100%.

Moderately adequate knowledge - a score from 51 to 75%.

Inadequate knowledge - a score from 0 to 50%.

Five to eight subjects were interviewed each day. Each subject was interviewed separately and privately. The interview lasted for 20 to 30 minutes. The pamphlet regarding management of anaemia during pregnancy was issued to all the antenatal women at the end of data collection period.

## Results

The frequency and percentage distribution of antenatal women i.e., 33.3% were in the age group 18-25 years, 40% were in the age group 25-30 years, 26.7% were in the age group 30-40 years. According to gestational age in trimester reveals that 35% were in the 1<sup>st</sup> trimester, 38% were in 2<sup>nd</sup> trimester and 26% were in 3<sup>rd</sup> trimester. Education of the antenatal women reveals that highest percentage (28.33%) had high school education, whereas 20% of them were under graduates, (20%) of them were post graduates, whereas (16%) of them had only middle school education, whereas 7.60% of them had only primary school education.

Occupation of the mother reveals that highest percentage (56.66%) were home makers, whereas (13.33%) of them were employed in private institutions, (3.33%) of them were working for daily wages, (3.33%) of them were agricultural workers. With regard to type of family highest percentage (78%) belonged to extended family, (10%) of them lived in joint family and (2.4%) of them were from nuclear family.

Pattern of food reveals that highest percentage (80%) consumed to mixed food, whereas (20%) of them were vegetarians, living area reveals that highest percentage (62%) resided at rural areas, whereas (38%) of them resided at urban areas.

With regard to the classification of the level of knowledge regarding management of anaemia in pregnancy among 60 antenatal women majority 24(40%) of them had inadequate level of knowledge, 34(56.67%) of them had moderately adequate knowledge and 02(3.3%) of them had inadequate knowledge.

<i>Level of knowledge</i>	<i>Mean score</i>	<i>Standard deviation</i>
Overall knowledge	7.85	3.555

**Table 1:** Mean and Standard deviation of the level of knowledge among antenatal women.

This table depicts the distribution of mean and standard deviation regarding management of anaemia in pregnancy among antenatal women. Mean knowledge score was 7.85 and standard deviation was 3.555.

## Discussion

Age in years reveals that highest percentage (40%) were in the age group of below 25-30 years, whereas lowest (27%) of them were in the age group of above 30-40 years. and 33.33% of antenatal women were in the age group of 18-25 years.

Gestational age in trimester reveals that highest percentage (38%) were in the gestational age of 2<sup>nd</sup> trimester, whereas lowest (26%) of them were in the gestational age of 3<sup>rd</sup> trimester and 35% of them were in the 1st trimester.

Education of the antenatal women reveals that highest percentage (28.33%) had high school education, whereas 20% of them were under graduates, (20%) of them were post graduates, whereas (16%) of them had only middle school education, whereas 7.60% of them had only primary school education.

Occupation of the mother reveals that highest percentage (56.66%) were home makers, whereas (13.33%) of them were employed in private institutions, (3.33%) of them were working for daily wages, (3.33%) of them were agricultural workers. With regard to type of family highest percentage (78%) belonged to extended family, (10%) of them lived in joint family and (2.4%) of them were from nuclear family.

With regard to the classification of the level of knowledge regarding management of anaemia in pregnancy among 60 antenatal women majority 24(40%) of them had inadequate level of knowledge, 34(56.67%) of them had moderately adequate knowledge and 02(3.33%) of them had adequate knowledge. Mean knowledge score was 7.85 and standard deviation was 3.555, which indicates that antenatal women should be educated about the various measures to prevent anaemia during pregnancy which includes adequate intake of iron rich diet, regular intake of iron and folic acid tablets and regular antenatal visits to track their health status.

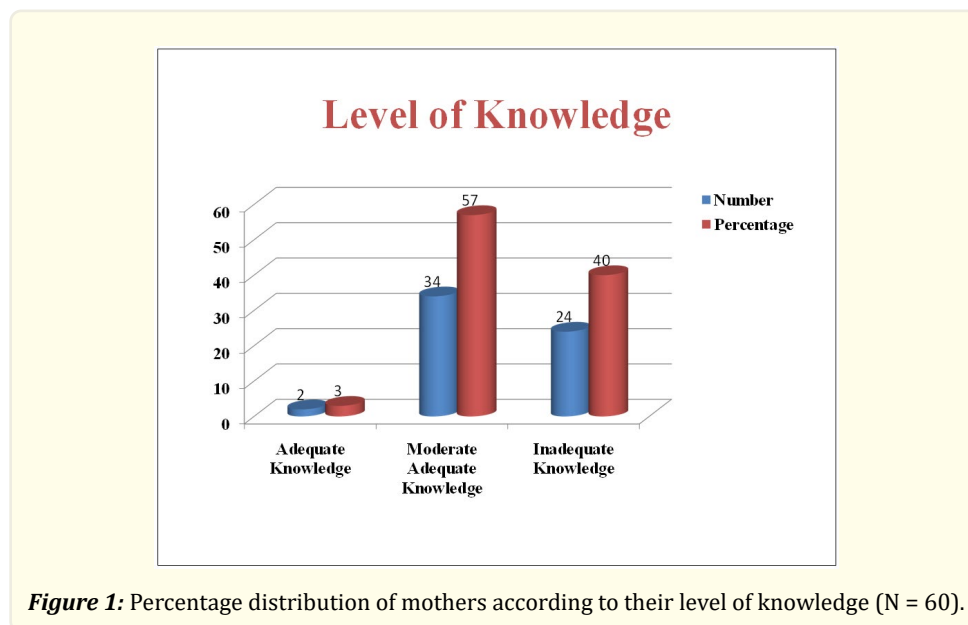


Figure 1: Percentage distribution of mothers according to their level of knowledge (N = 60).

The association of levels of knowledge of antenatal women with their selected socio-demographic variables identified no significant association between socio demographic variables such as age, gestational age, education, occupation, type of family, pattern of food, and living area (0.740, 0.986, 0.984, 0.457, 0.178, 0.263, 0.266) respectively of level of knowledge regarding prevention of anaemia in pregnancy among antenatal women. The obtained chi square value to the table value at  $p \leq 0.05$  was considered as significant.

These findings were consistent with the study done by Duko et al. (2017) an institutional based cross - sectional study at South Ethiopia among 244 pregnant women to assess the awareness of anaemia and associated factors. Using simple random sampling technique participants were selected and the result showed that 94.3% responded and 44.3% had comprehensive awareness of anaemia as it is significantly associated with the number of antenatal visits, educational status of husband, access to health service.

### **Limitations of the study**

- Generalization of study results is not possible as a single setting was used.
- The small sample size of the study.

### **Conclusion**

Antenatal care can also play a critical role in preparing a woman and her family for birth by establishing confidence between the woman and her health care provider and by individualizing promotional health messages. Antenatal care is considered essential for health of both the mother and the child, it is important to analyse the possible factors contributing to its utilization. The present study has shown that 40% of the antenatal women had inadequate knowledge regarding anaemia. The nurses must conduct periodic analysis of antenatal women's knowledge on anaemia and adherence to iron folate supplementation and educate them throughout their pregnancy period for their compliance with the medication. The study can be taken up as an experimental study in community setup with larger sample size for more generalization of the results obtained.

### **Acknowledgements**

The authors wish to thank the management of Gopal Narayan Singh University for facilitating the experimental work.

### **References**

1. WHO. Haemoglobin Concentrations for the Diagnosis of Anaemia and Assessment of Severity. Vitamin and Mineral Nutrition Information System (2011).
2. WHO. Prevalence of Anaemia Worldwide 1993–2005. World Health Organization (2008).
3. Rebecca J, Stoltzfus MLD. Guidelines for the Use of Iron Supplements to Prevent and Treat Iron Deficiency Anemia. International Life Sciences Institute Press (1998).
4. WHO/UNICEF/UNU. Iron Deficiency Anaemia Assessment, Prevention and Control: A Guide for Programme Managers. World Health Organization (2001).
5. WHO. Reducing Risks, Promoting Healthy Life. World Health Organization (2002).
6. WHO C. Report of a Joint World Health Organization/Centers for Disease Control and Prevention Technical Consultation on the Assessment of Iron Status at the Population Level. World Health Organization/Centers for Disease Control and Prevention (2007).
7. Vanamala V, et al. "Incidence and outcome of anaemia in pregnant women: a study in a tertiary care centre". Int J Reprod Contracept Obstet Gynecol 7.2 (2018): 462-466.
8. Duko B, et al. "Awareness of Anemia and Associated Factors among Pregnant Women Attending Antenatal Care, South Ethiopia". J Women's Health Care 6.409 (2017): 2167-0420.
9. ICF CSACEa. "Ethiopia Demographic and Health Survey 2016". (2016).

10. Gebremedhin S, Enquesslassie F and Umeta M. "Prevalence and correlates of maternal anemia in rural Sidama, Southern Ethiopia". Afr J Reprod Health 18 (2014): 44-53.

**Volume 4 Issue 5 May 2023**

**© All rights are reserved by Lisy Joseph., et al.**