



A STUDY TO ASSESS THE KNOWLEDGE AND DETERMINE THE PREVALENCE OF ANEMIA IN PREGNANT WOMEN OF AGE 18-45 YEARS IN SELECTED GOVERNMENT HOSPITALS AT FARIDABAD, HARYANA.

Community Medicine

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ABSTRACT

BACKGROUND: Anemia is a major public health problem affecting both developed and developing countries. According to the World Health Organization, the prevalence of anaemia among pregnant women in developed countries is about 14%, whereas it is still as high as 51% in the developing world. The aim of the present study was to understand the health profile and socio-demographic factors of the country's urban pregnant women and to estimate the exact prevalence of anaemia and its associated factors among pregnant women based on the level of haemoglobin.

METHODS: This was a systematic random sampling study. 63 consenting participants were selected for the study. Haemoglobin estimates from pregnant women using antenatal care services or delivery services in the government hospital in an urban area of India, the incidence of anaemia and its associated sociodemographic factors were studied. Although the overall prevalence of anaemia did not vary significantly with literacy level, the severity of anaemia did to a great extent.

RESULTS: The prevalence of anemia was 98% among the pregnant women in this region of urban India. Out of these 37% had mild anemia, 63% had moderate anaemia and severe anaemia was not found in any of the participants according to ICMR classification of anemia. The mean haemoglobin level was found to be 9.717. The number of ANC visits in present pregnancy and whether the pregnant women had taken iron folic acid prophylaxis also were very significant variables in the determination of prevalence as well as the severity of anaemia.

CONCLUSIONS: There is a significantly high prevalence of anaemia among pregnant women in urban areas of India. Our study has also enlisted a few socio demographic factors that contribute to such high prevalence of this disease. Programs focused on target population need to be planned and implemented with active participation of public

KEYWORDS

Pregnant Women, Haemoglobin, Socio demographic factors, Anemia

INTRODUCTION

India has always been a country with a high prevalence of anaemia. In India, prevalence ranges between 33-89%⁽¹⁾. Indian obstetricians and nutrition scientists earlier documented that pregnant women were the most vulnerable group for anaemia.

The relevance of anaemia as a major public health concern is generally acknowledged across the world. According to the WHO, the prevalence of anaemia among pregnant women in poor countries is 56 percent on average, ranging from 35 to 100 percent in different parts of the world.⁽²⁾

Maternal anaemia is considered a risk factor for pregnancy and can be a cause of anaemia in new-borns (NB), besides being related to a higher miscarriage rate, intrauterine growth restriction (low birth weight-LBW), prematurity, foetal death, and anaemia in the first year of life due to low iron stores in the brain.⁽³⁾

Its origin may be due to several factors including acute infections, chronic inflammation, hemoglobinopathies and single or combined deficiency of nutrients such as folic acid, vitamin B12 and iron deficiency is the most common cause of known nutritional anaemia⁽⁴⁾.

Iron is an essential and vital nutrient for many cellular activities and vital for the early development of the nervous system. Thus, it is crucial for intrauterine and postnatal development⁽⁵⁾.

Various studies from various parts of the nation (India) have found that the prevalence of anaemia ranges from 33 to 100 percent (3). Anemia is the second leading cause of maternal death in India, accounting for 20% of all maternal fatalities.⁽⁶⁾

Anaemia is one of the most common nutritional deficiency disorders affecting the pregnant women; the prevalence in developed countries is 14%, in developing countries 51%, and in India, it varies from 65% to 75%.^(7,8)

Awareness to pregnant women is a matter of fact to be considered due to their negligence. To have healthy women and mothers, one needs to be strong and healthy. The health education given to them will give them the insight to practice healthy life styles and thereby prevent anaemia.⁽⁹⁾

Doctors say mere undernutrition is not the cause for high anaemia burden in India.

"Only nutrition cannot address the problem. Poor hygiene is a major cause for anaemia because it prevents absorption of nutrition." Low awareness, illiteracy and the practice of putting the family before self when it comes to care are factors that often deter women in India from taking proper nutrition and care for themselves leading to anaemia.

OBJECTIVES OF THE STUDY

1. To assess the knowledge of pregnant women of age 18-45 years regarding anaemia.
2. To determine the prevalence rate of anaemia in pregnant women of age 18-45 years
3. To compare knowledge and prevalence of anaemia in pregnant women of age 18-45 years.
4. To find out association of knowledge regarding anaemia with selected demographic variables.
5. To find out association of prevalence of anaemia with selected demographic variables.

SCOPE

To determine the prevalence of anaemia and associated factors among pregnant women (between 18-45 years) attending antenatal clinic (ANC) of Governmental Health facilities of Faridabad, Haryana.

METHODOLOGY.

This study was conducted to assess the Prevalence of anaemic status among the pregnant women in the selected Government Hospitals in Faridabad, Haryana.

STUDY DESIGN

The study setting for the present study was the urban area known by the name Faridabad, in Haryana. (Government Hospitals in Faridabad, Haryana. E.S.I Medical College Hospital and District Hospital of Faridabad).

TARGET POPULATION

All pregnant women attending antenatal clinic of the Government Hospitals in the study area will target for the study. The study population consisted of a sample of pregnant women who are residing in the study area during the study period and attending health facilities found in the study area. (ANC clinic of selected Government Hospitals in Faridabad). The population for this study comprises of Pregnant women of age (18-45 years)

SAMPLE SIZE

The sample is the part of the pregnant women who are attending the

antenatal clinic (ANC clinic Government Hospitals in Faridabad, Haryana. E.S.I Medical College Hospital and District Hospital of Faridabad) of selected Government Hospitals in Faridabad were selected for the study. The sample size indicates how huge will be the sample selected for the study. The sample of 63 for the present study comprises of pregnant women of age between 18-45 years.

Sample And Sampling Technique

The sample is the part of the population selected for the study. The sample for the present study comprises of Pregnant women. (between 18-45 years).

Sampling Technique

It is a process of selecting a portion of the population to represent the entire population. In the present study systematic random sampling technique was used to select 63 consenting pregnant women were selected for the study. (Between the age of 18-45 years).

It was a process of selecting a portion of the population to represent the entire population of the pregnant women who are attending the ANC clinic of selected Government Hospitals in Faridabad. (E.S.I Medical College Hospital and District Hospital of Faridabad).

In the present study systematic random sampling technique was used from the pregnant women (between 18-45 years). The haemoglobin report done in the present pregnancy will be used to categorise the study subjects.

1. The ANC study subjects will be tested for haemoglobin reports at the laboratory of the selected Government Hospitals, Faridabad, Haryana.
2. All the Pregnant women who get registered in the ANC clinic of selected Hospitals will be tested for Haemoglobin level.
3. Willingness to participate in the study with Hb < 11gm/dl will be included in the study.
4. Each participant was recruited only once on their first visit during the study period.
5. Anaemic women will be categorized mild (10.1-11gm/dl), moderate (7.1-10gm/dl) and severe (4-7gm/dl) according to ICMR guide line.
6. Knowledge of Antenatal care and dietary adequacy will be assessed by a pre prepared questionnaire Excellent (40 – 52), Very Good (27-39), Average (14 – 26) and Below Average (0-13).

STATISTICAL ANALYSIS

Table 1: - showing the percentage distribution of anemia and maternal age, level of education, gestational age, parity and number of visit among the study participants

Variables	Anaemia			No. of Participants
	Moderate	Mild	Severe	
Maternal Age Chi-Square = 1.864 P value = 0.601				
18-21 years	12	3	0	15
22-25 years	31	3	0	34
26-29 years	6	1	0	7
30-33 years	5	0	0	5
34-37 years	2	0	0	2
38-41 years	0	0	0	0
42-45 years	0	0		
Level of Education Chi-Square = 11.382 P value = 0.044				
Illiterate	6	1	0	7
Primary school	4	0	0	4
Middle school	5	1	0	6
High school	16	2	0	18
Intermediate	13	2	0	15
Graduate	11	1	0	12
Post Graduate	1	0	0	1
Gestational Age Chi-Square = 3.211 P value = 0.201				
1 st Trimester	7	0	0	7
2 nd Trimester	28	2	0	30
3 rd Trimester	21	5	0	26
Parity Chi-Square = 2.445 P value = 0.294				
No Child	16	4		20
One Child	18	1		19
>2 Children	2	22		24
No. of ANC Visit Chi-Square = 4.222 P value = 0.647				

1time	19	3	0	22
2 times	12	2	0	12
3 times	12	0	0	12
4 times	4	0	0	4
5 times	3	1	0	4
6 times	3	1	0	4
>7 times	3	0	0	3
1st ,2nd&3rd Trimester9(0-12), (13-27)& (28-42) weeks respectively				

Table 2: -Demography score wise distribution

score	Pregnant women	Percentage
5 – 10	27	42.9
11 – 15	24	38.1
16 – 25	7	11.1
26 – 29	5	7.9
Total	63	100.0

The above table shows that the most of the study participants had demography score of 5-10(42.9%), followed by score of 11-15(38.1%) and the mean is 10.76 and SD is 3.946

Table 3: - Knowledge score wise distribution

Score	Pregnant women	Percentage
Below average (0 – 13)	8	12.7
Average (14 – 26)	36	57.2
Very good (27 – 26)	15	23.8
Excellent (40 – 52)	4	6.3
Total	63	100.0

The above table shows that the most of the study participants had average knowledge 57.2%, followed by good knowledge score 23.8% and the mean is 22.86 and SD is 6388

Table 4: - Associations between Knowledge and Demography Score (II & III)

Demography Score	Knowledge Score				Total	Chi-Square	P Value
	Below average (0 – 13)	Average (14–26)	Very good (27–39)	Excellent (40–52)			
5 - 10	3	19	5	0	27	46.693	0.001
11 - 15	2	11	9	2	24		
16 - 25	1	4	1	1	7		
26- 29	2	2	0	1	5		
Total	8	36	15	4	63		

The above table shows that there is a strong association between knowledge and Demography score at chi square value of 46.693 and p value of 0.001.

Table :5 -Percentage distribution of Haemoglobin level among the study population.

Haemoglobin level(g/dl)	Percentage	No. of Participants
Severe Anaemia (<7)	0	0
Moderate Anaemia (7.1 -10)	40	63.49
Mild Anaemia (10.1-11)	23	36.51

The prevalence of Mild anemia 40(63.49%) was higher as compared to moderate anemia 23(36.51%). Mean Hb was 9.717, minimum was 7.4 and maximum was 11.0

DISCUSSION

This study was aimed to investigate the prevalence of anaemia and assess the knowledge.

In our study most of the participants was in the age group of 24-29 years 38(60.3%) and mean age was 25.84 which was very much comparable to the study conducted by harvey et al (10) in their study the mean age was 29.9.

In our study the prevalence of anaemia were higher among primi and who had low level of education 47.6%, similar result was found by Kimitoshi (11) he also found that the prevalence of anaemia were higher among primi.

Out of 63 participants 49(77.7%) participants were house wife and most of them 32(50.79%) was vegetarian is results is very much similar to the study conducted by Mekonnen et al(12) 57.7% in his study was house wives and 57.24% was vegetarian. The prevalence of Mild anemia 40(63.49%) was higher as compared to moderate anemia 23(36.51%). Mean Hb was 9.717, minimum was 7.4 and maximum was 11.0 similar result was found in his study.

In terms of the factors that contribute to anaemia in pregnancy, a couple of variables, including the pregnant woman's employment and literacy, have been linked to anaemia in pregnancy.

CONCLUSION

- The study established high prevalence of anemia and it was associated with parity .
- Haemoglobin appears to increase with advancing pregnancy, which suggests the mild risk of anemia in pregnancy
- Prevalence of anemia decrease with increase number of antenatal care visit.
- The was a significant association between knowledge and the family income .

RECOMMENDATION

- A study can be undertaken with a large sample to generalize the findings.
- Pregnant women should be educated on adequate healthy dietary intake to maintained normal haemoglobin levels.
- In a unique effort to prevent this problem, pregnant women should encourage to attending antenatal care more often to decrease the incidence of anemia.

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