



# A Study To Assess The Effectiveness Of Planned Teaching Programme On Knowledge And Self-Care Regarding Prevention Of Anaemia Among Antenatal Women At Batra Hospital And Medical Research Centre (Bhmrc), New Delhi.

<sup>1</sup>Shobha Mishra, <sup>2</sup>Eliza Huidrom, <sup>3</sup>Wakrambam Karunanidhi Devi

<sup>1</sup>PG Tutor, <sup>2</sup>Tutor, <sup>3</sup>Tutor

<sup>1</sup>Department of Medical Surgical Nursing, NPCC

<sup>1</sup>Lakshmi Bai Batra College of Nursing, Affiliated to Indraprastha University, New Delhi, India

**Abstract:** Anemia is the commonest hematological disorder that may occur in pregnancy, the others being rhesus isoimmunization and blood coagulation disorder. Anaemia is a condition in which the number of blood cells of their oxygen carrying is insufficient to meet physiologic needs. During pregnancy plasma volume expands, for this reason hemoglobin level below 10g/dl at any time during pregnancy. The study was conducted in BHMRC, New Delhi. The structured question was administered to 30 antenatal women. The result showed that (60%) antenatal women were of less than 30 years of age. Majority (90%) belongs to Hindu religion, mostly (80%) were belongs to joint family, 100% antenatal women were married. Mostly 40% had secondary education, majority 80% were housewives, (60%) of family income above 15,000, (43.33%) had one gravida and majority (83.33%) had below 12 Hb level. Out of 30 antenatal women, half of the women (30%) had very good knowledge, (50%) had good knowledge and (20%) had average knowledge and self-care regarding prevention of anaemia with the mean knowledge score and standard deviations was  $17.7 \pm 3.6$ . The study concluded that out of 30 antenatal women, 9 have very good knowledge 15 have good knowledge and 6 have average knowledge.

## I. INTRODUCTION

Anemia is derived from the Asian Greek word Anemia, meaning lack of blood. It is the most common disorder of blood. It can be classified in a variety of ways, based in the morphology of RBC's underlying etiological mechanism. The three main classes include excessive blood loss, excessive blood destruction or deficient RBC production. Anemia can arise due to inadequate intake or poor bioavailability of dietary iron or due to excessive losses iron from the body. During pregnancy the maternal plasma volume gradually expands by 50%, or an increase of appropriately 1200mL by term. The total increase in RBCs is 25%, or approximately 309mL. This relative hemo-dilution produces a fall in Hb concentration, which reaches its lowest level during the second trimester in pregnancy and then rises again in the third trimester. A low Hb concentration indicates Anemia is present but it does not reveal the cause. Relative total iron stores can also be assessed by measuring serum ferritin (iron storage protein).

According to WHO Anaemia is a condition in which the number of blood cells or their oxygen carrying capacity is insufficient to meet physiologic needs, which vary by age, sex, altitude, smoking and pregnancy status. A descriptive study was carried out among antenatal mothers to assess the knowledge and practices to prevent anaemia. The purposive sampling technique was used to collect 100 samples from selected health Centre of Haryana. The present study revealed that the main source of information to antenatal women regarding prevention of anaemia is from health workers. Out of 100 antenatal women only 38% have adequate

knowledge and 29% have inadequate knowledge regarding the prevention of anaemia. About the practices only 36% of antenatal women are following the good practices on prevention of anaemia and 24% of antenatal women are following the poor practices regarding the prevention mainly about their regular visits, intake of iron supplements, etc.-----

Effective prevention and management of anaemia require a multifaceted approach, encompassing knowledge, self-care practices and timely medical interventions. Empowering antenatal women with the necessary knowledge and skills to prevent and manage anaemia can significantly improve maternal and fetal health outcomes.

There is need to plan Programme regarding prevention of anaemia to the antenatal women. The present study will help the antenatal women to gain the knowledge regarding prevention of anaemia which can be enhanced by planned teaching programme and for the investigation to evaluate the effectiveness of planned teaching Programme on prevention of anaemia among antenatal women at Batra hospital and medical research Centre, New Delhi.

### 3.1 Population and Sample

In the present study, the population comprises of antenatal women from gynecological OPD of Batra hospital and medical research centre, New Delhi.

The sample size consisted of various demographic variables of antenatal women in BHMRC. The sample size is 30 and the sample size for the pilot study is 3.

### 3.2 Data and Sources of Data

For this study secondary data has been collected from the available and reliable sources, data and information from books, journals which were published and non-published research studies and attempt was made to review literature through internet and printed or published research.

The literature reviewed for the present study is organized and presented under the following sub heading:

1. Literature related to anaemia during pregnancy.
2. Literature related to knowledge of anaemia during pregnancy.
3. Literature related to self-care for prevention of anaemia.

## I. RESEARCH METHODOLOGY

The descriptive approach was adopted to accomplish the objectives. The convenient sampling technique was used to select 30 antenatal women who visit in gynecological OPD of Batra hospital and medical research centre, New Delhi.

The data was collected using self-structure demographic data and a self-structured knowledge questionnaire.

### 3.4 Statistical tools and econometric models

Data analysis was planned to include descriptive and inferential statistics. The following plan for analysis was developed with the opinion of the experts based on the objectives of the study:-

1. To assess the level of knowledge regarding prevention of anaemia among antenatal women after implementation of planned teaching programme.
2. To assess the level of self-care regarding prevention of anaemia among antenatal women after implementation of plan teaching programme.
3. To determine the relationship prevention of anaemia among antenatal women after implementation of plan teaching programme.

## IV. RESULTS AND DISCUSSION

### SECTION – A: Description of sample characteristics.

It deals with demographic data which consists of 8 items to collect the sample characteristics, which includes age (in years), religion, type of family, marital status, educational status, occupation, family income and obstetrical score.

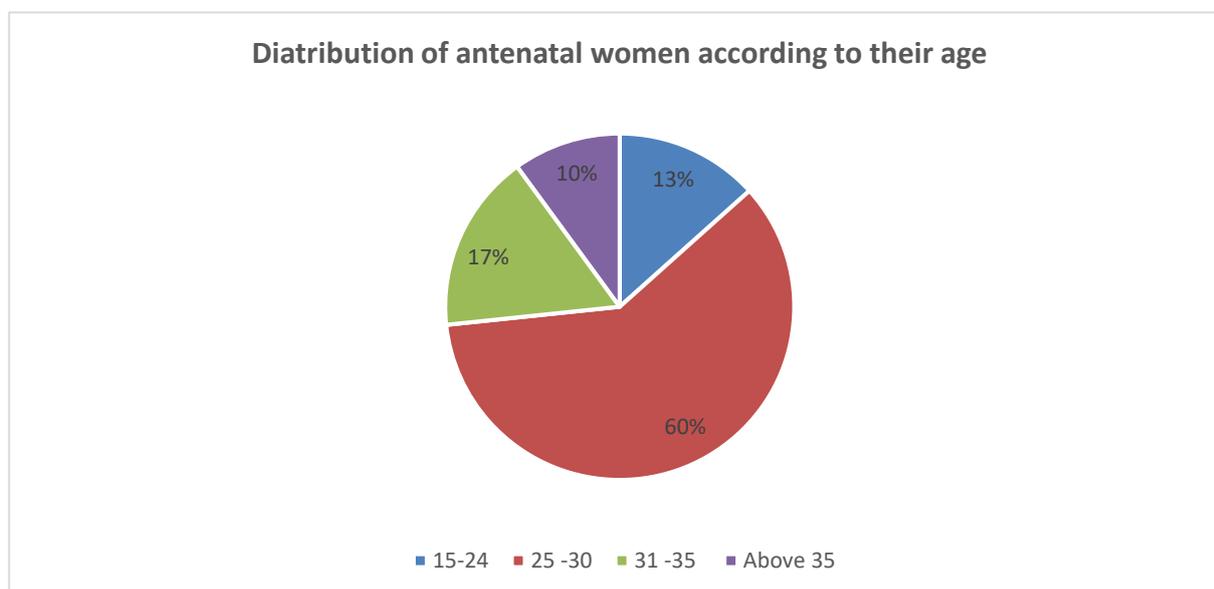


Figure 1: Pie chart showing percentage distribution of antenatal women according to their age

Figure1: Indicates that out of the total samples, most of the women 60% were in the age group of 24-30 years, 16.67% were in the age group of 30-35 years, 13.33% were in the age group of 15-24 years as well as 10% were above 35 years of age.

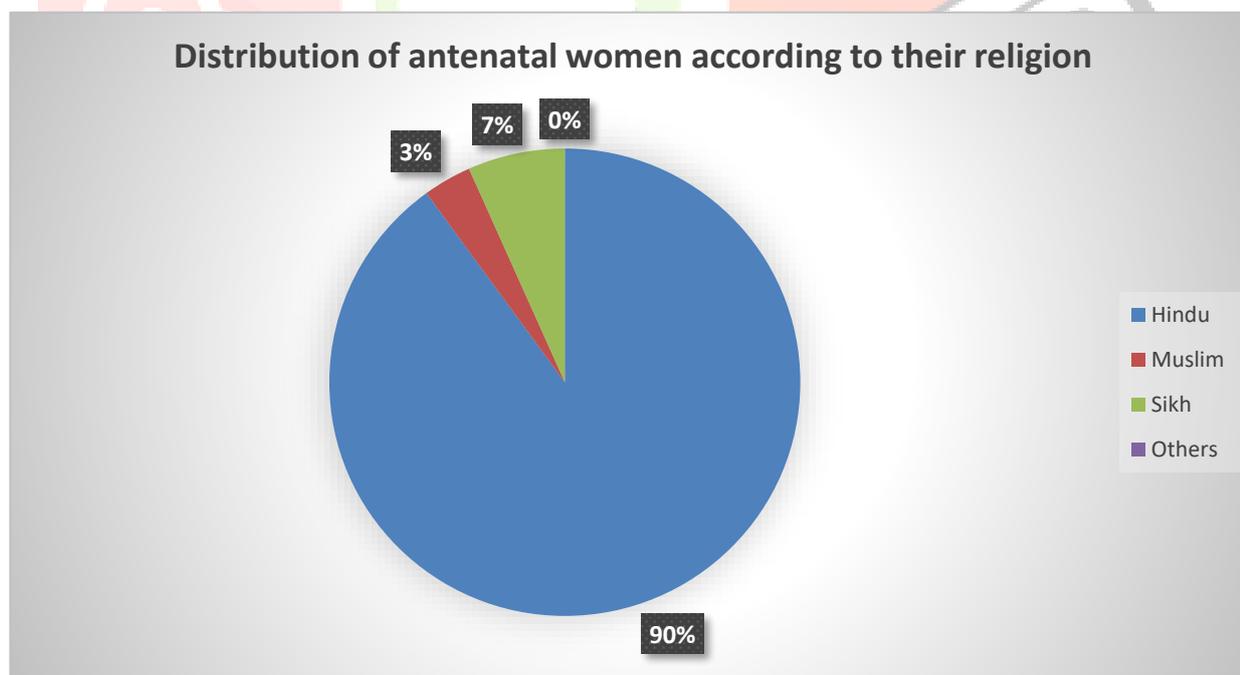


Figure 2: Pie chart showing percentage distribution of antenatal women according to their religion

Figure 2: Indicates that out of the total samples, majority of the women 90% were from Hindu, 6.67% were from Sikh and 3.33% were from Muslim.

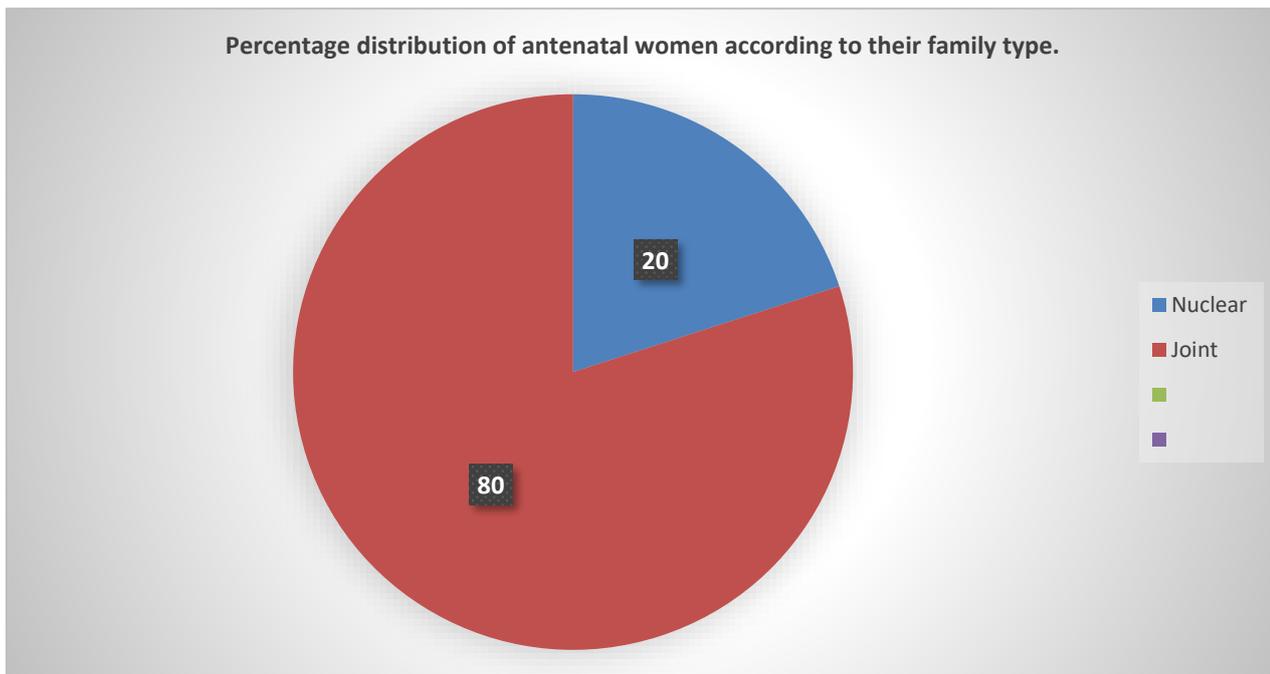


Figure 3: Pie chart showing percentage distribution of antenatal women according to their family type.

Figure 3: Indicates that out of the total samples, majority of the women 80% were belong to joint family, 30% were belong to nuclear family.

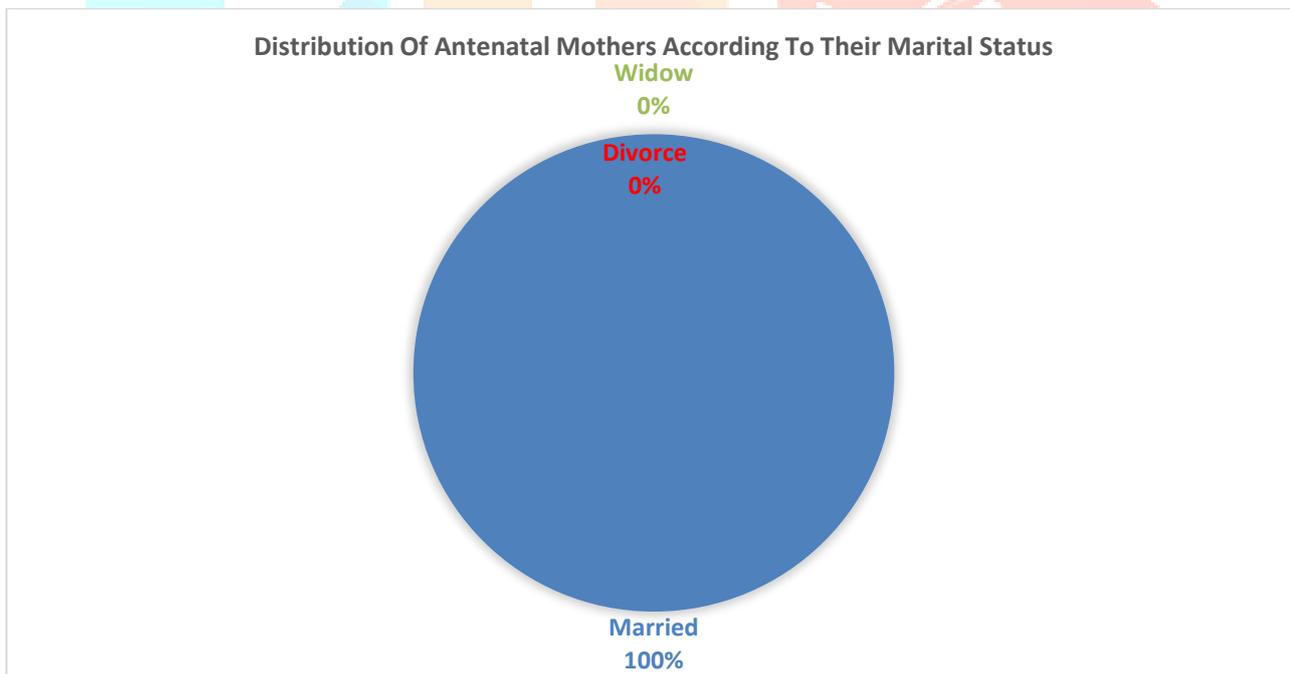


Figure 4: Pie chart showing percentage distribution of antenatal mothers according to their marital status.

Figure 4: Indicates that all the women 100% were married

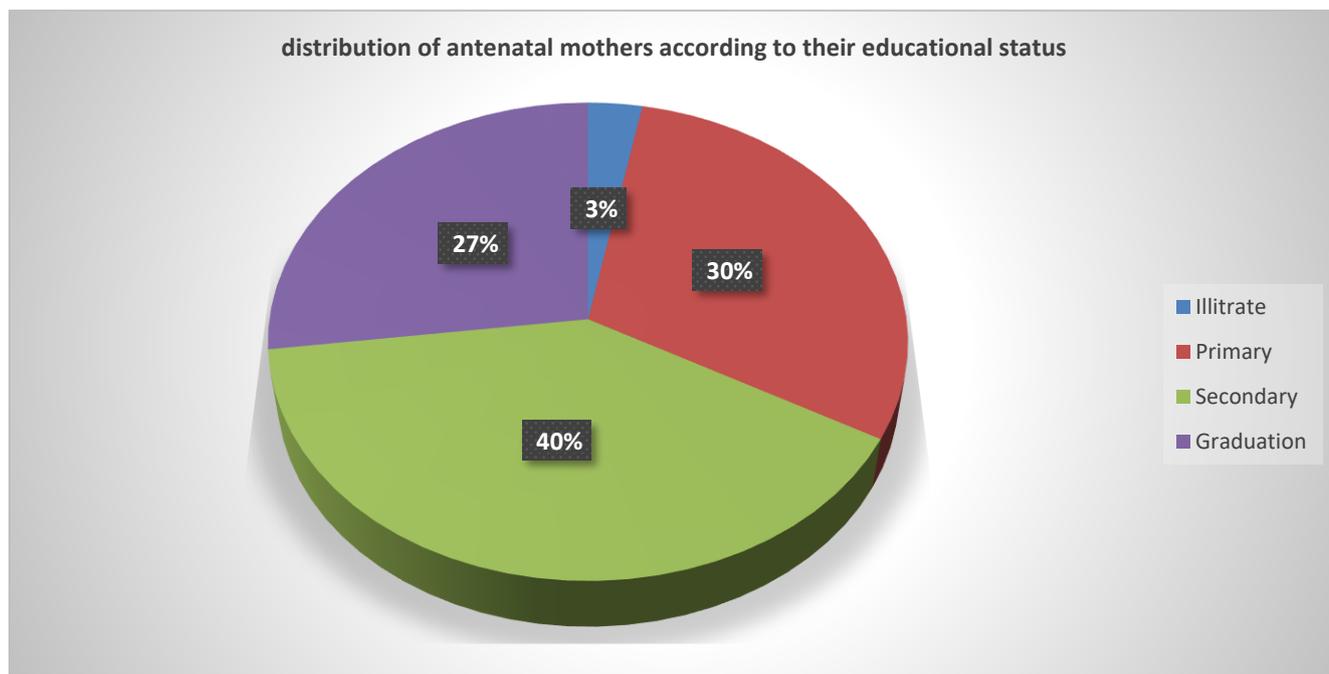


Figure 5: Pie chart showing percentage distribution of antenatal mothers according to their educational status.

Figure 5: Indicates that out of the total samples, most of the women 40% had studied up to secondary, 30% up to primary, 26.67% studied up to graduation as well as 3.33% were illiterate.

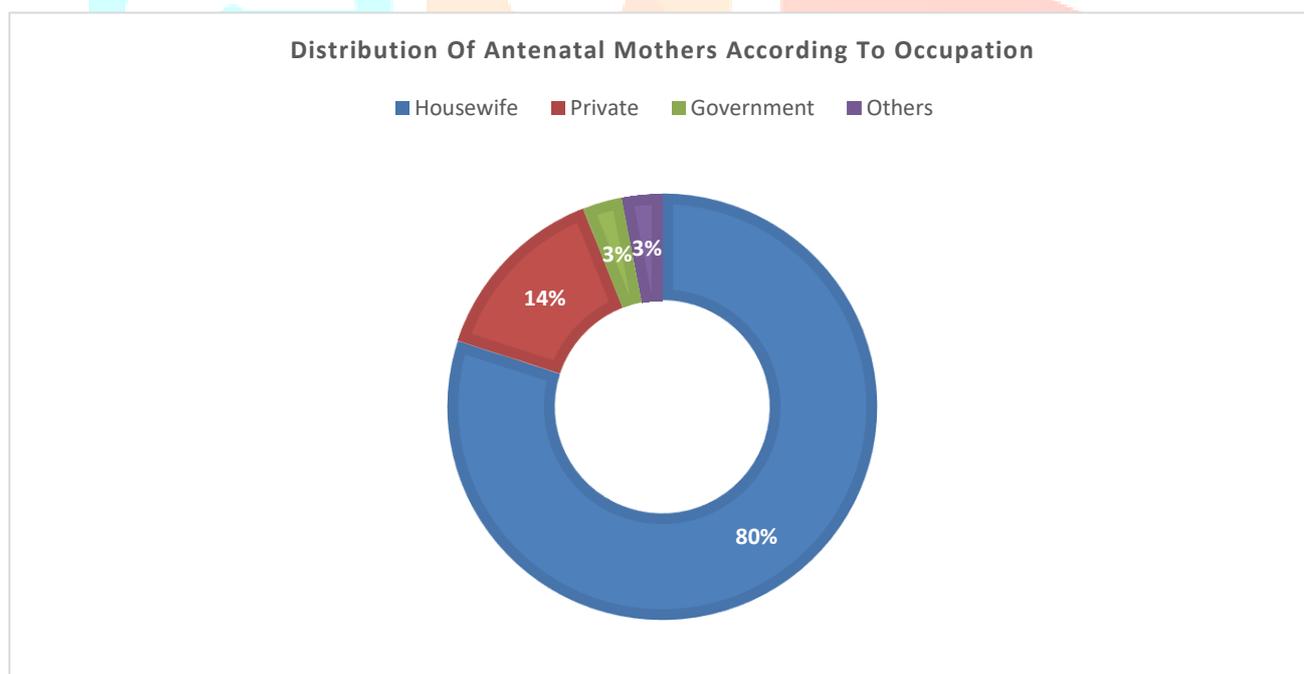


Figure 6: Pie charts showing percentage distribution of antenatal mothers according to occupation.

Figure 6: Indicates that out of the total samples, majority of the women 80% were housewife, 13.33% were doing private job, 3.33% were doing government job.

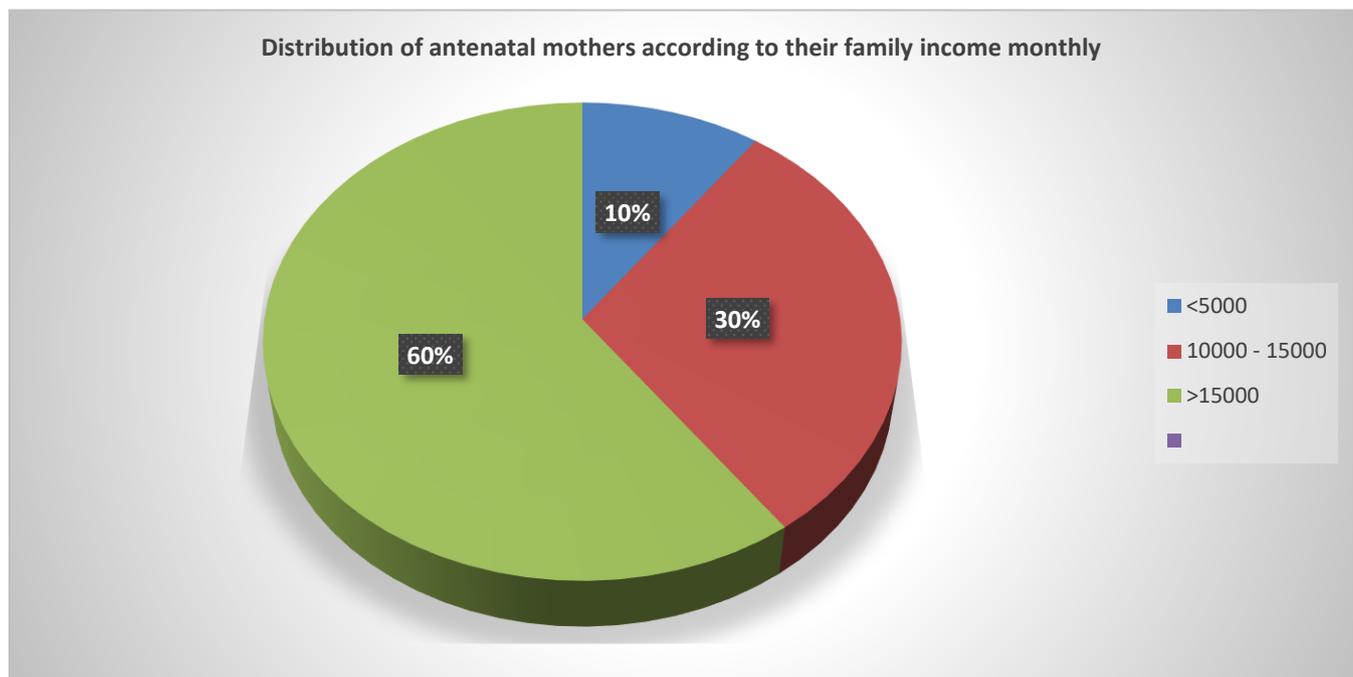


Figure 7: Pie chart showing percentage distribution of antenatal mothers according to their family income monthly.

Figure 7 Indicates that out of the total samples, 60% of the women had family income above 15,000, 30% had income from 10,000-15,000 as well as 10% had income less than 5,000.

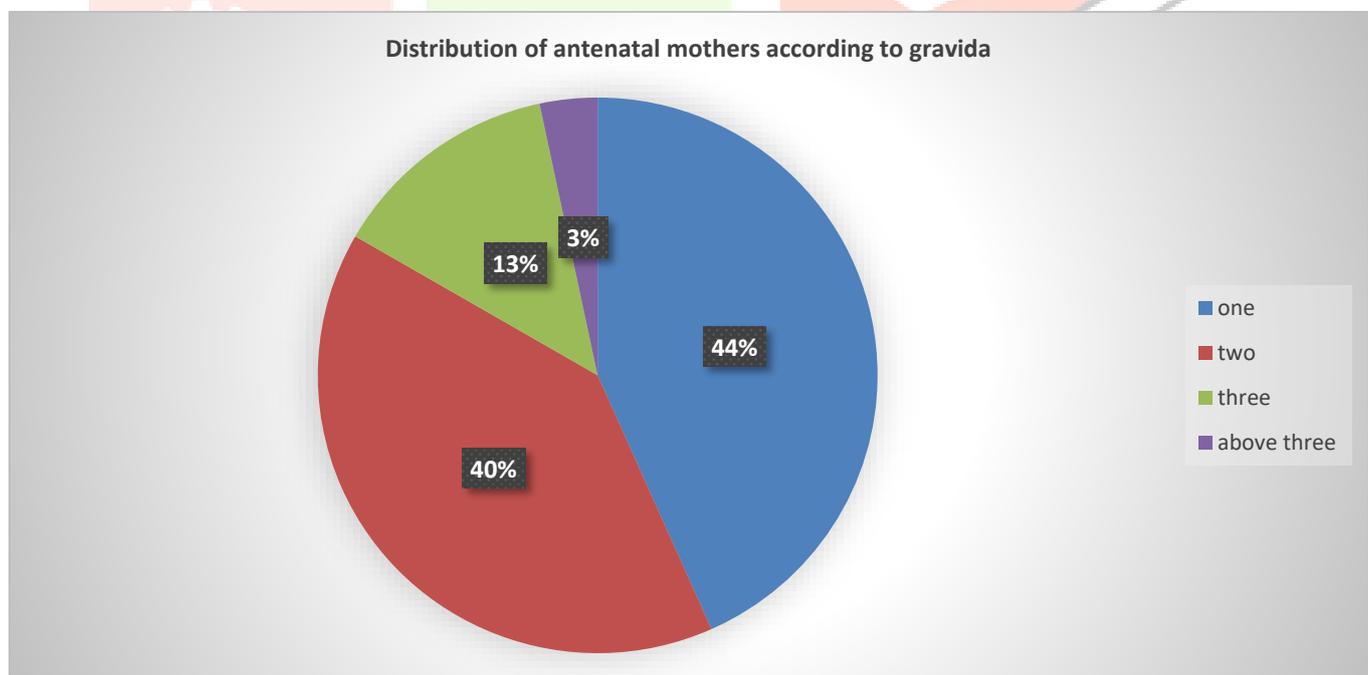


Figure 8: pie chart showing percentage distribution of antenatal mothers according to gravida.

Figure 8: Indicates that out of the total samples, 43.33% had one gravida, 40% had two gravida, 13.33% had three gravida as well as 3.33% had above three gravida.

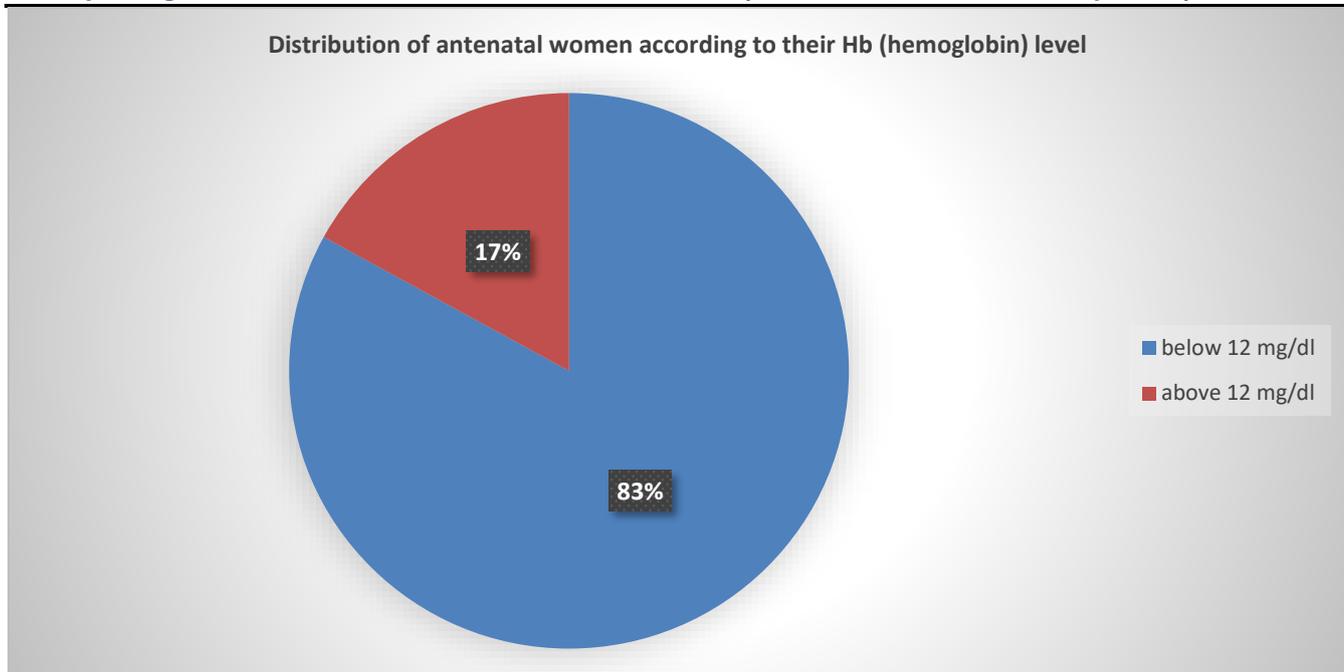


Figure 9: Pie chart showing percentage distribution of antenatal women according to their Hb (hemoglobin) level.

Figure 9: Indicates that out of the total samples, Majority of the women 83.33% had below 12 mg/dl Hb level and 16.67% had Hb level above 12 mg/dl.

### SECTION-B: Assessment of knowledge and self-care of antenatal women regarding prevention of anemia.

**Table 1:**

**Percentage and Frequency Distribution of Antenatal Women Regarding Prevention of Anemia In terms of Level of Knowledge.** N=30

Level of knowledge score	Frequency	Percentage
Very good ( $\geq 75\%$ )	9	30
Good (60 -74%)	15	50
Average (50-60%)	6	20
Poor (<50%)	0	0

Maximum score = 30

Minimum score = 0

Table 1 reveals that half of the women (50%) had good knowledge, one third of the women (30%) had very good knowledge and (20%) had average knowledge after implementation of planned teaching programme regarding prevention of anemia.

**Table 2**

**Range, Mean, Median, Mode, standard deviation of knowledge score of antenatal women regarding prevention of anemia.** N=30

Knowledge score	Range	Mean	Median	Mode	Standard deviation
Post –test	0-5	17.7	17.3	17.09	3.60

Maximum score – 45

Minimum score = 0

Table 2 represents the knowledge of women regarding prevention of anemia. The data indicated that the mean percentage and standard deviation of knowledge score of women is  $17.7 \pm 3.6$ , shows that the knowledge score of antenatal women was higher after implementation of planned teaching programme.

**Table 3**

**Percentage and frequency distribution of antenatal women regarding prevention of anemia in terms of level of self-care** N=30

Level of self-care score	Frequency	Percentage
Very good ( $\geq 75\%$ )	16	53.33
Good (61-74%)	10	33.33
Average (50-60%)	4	13.34
Poor ( $< 50\%$ )	0	0

Maximum score =45  
score = 0

Minimum

Table 3 reveals that half of the women (53.33%) had very good level of self-care, one third of the women (33.3%) had good level of self-care and (13.3%) had average level of self-care after implementation of planned teaching programme regarding prevention of anemia.

**Table 4**

**Range, Mean, Median, Mode, standard deviation of self-care score of antenatal women regarding prevention of anemia.**

N=30

Knowledge score	Range	Mean	Median	Mode	Standard deviation
Post –test	0-16	33.96	38.16	39.5	4.70

Maximum score – 45

Minimum score – 15

Table 4 represents the level of self-care regarding prevention of anemia. The data indicated that mean percentage and standard deviation of level of self-care of women is  $33.96 \pm 4.70$ , shows that the self-care score of antenatal women was higher after implementation of planned programme.

**Table 5**

**Co – efficient correlation between knowledge score and self-care score of antenatal women regarding prevention of anemia.**

N=30

Items	Mean $\pm$ S.D	Median	Mean difference	Co-efficient
Knowledge score	17.7 $\pm$ 3.60	17.3	21.8	1
Self-care	36.5 $\pm$ 4.70	38.1		

Table 5 interpreting the mean and standard deviation of knowledge score and self-care were  $17.7 \pm 3.60$  and  $39.5 \pm 4.70$  respectively. The median of knowledge score is 17.3 and self-care is 38.1. The mean difference of knowledge score and self-care score is 21.8. The co-efficient correlation between knowledge score and self-care is 1 which shows that there is a positive relationship between knowledge and self-care. Hence, research hypotheses H3 was accepted and null hypothesis H0 was rejected.

## DISCUSSION

Effective prevention and management of anemia require a multifaceted approach, encompassing knowledge, self-care practice and timely medical interventions. Empowering antenatal women with the necessary knowledge and skills to prevent and manage anemia can significantly improve maternal and fetal health outcomes. This study aims to assess the knowledge and self-care regarding prevention of anaemia among antenatal women at Batra hospital and Medical research Centre (BHMRC), New Delhi.

A total of 60 samples, half of the women (53.33%) had very good level of self-care, one third of the women (33.3%) had good level of self-care and (13.3%) had average level of self-care after implementation of planned teaching programme regarding prevention of anemia.

The result of the study indicates that there is correlation between the knowledge and self-care regarding prevention of anemia with selected demographic variables of staff nurse.

The following objectives and hypothesis have been in relation to the study's finding:

### Finding related to demographic variables revealed that

- Most of the women in the study (60%) were in the age group of 24-30.
- Majority of the women in study (90%) were from Hindu religion.
- Most of the women in the study (80%) were from the joint family.
- All the women in the study (100%) were married.
- Most of the women in the study (96.67%) were literate.
- Most of the women in the study (80%) were housewives.
- Most of the women in the study (60%) had monthly income of > 15000/-
- Most of the women in the study (43.33%) had 1 living child.
- Most of the women in the study (83.33%) had Hb level < 12g/dl.

### Findings related to knowledge revealed that

The mean score of the knowledge regarding prevention of anemia was 17.7, which shows that the knowledge of antenatal women was higher after implantation of planned teaching programme.

### Finding related to self-care ability score were:

The mean score of the self-care regarding prevention of anemia was 33.96, which shows that the self-care of antenatal women was higher after implantation of planned teaching programme.

### Findings related to Co-efficient correlation between knowledge score and self-care of antenatal women regarding prevention of anemia.

The co-efficient correlation in the study was 1 which shows that there is a positive relationship between knowledge and self-care.

## II. ACKNOWLEDGMENT

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