

## **Socio-economic profile of anemic female of reproductive age group**

SWAROOP PUNEET AND BHARTI SINGH

*Institute of Home Science, Khandari Dr. B. R. Ambedkar University, Agra*

### **Abstract**

*The present study aimed at determining the socio-economic factors associated with anemia in females of reproductive age in a primary health centre and district hospital in Agra. This is a descriptive study. Multistage random sampling technique was used for the selection of sample. Total five hundred anemic women of reproductive age group (15-49 years) were selected randomly. The socio-demographic data was collected through written Informed consent, obtained from all the individuals who participated in this study. Early age of marriage, female literacy, were important risk factors contributing for anemia in women. Poverty, lack of knowledge about nutrition indirectly contributes to anemia. Other factors like family structure and size were also significantly associated with anemia. Along this, in the present study, it was particularly revealed that the prevalence of anemia was higher among women of middle socioeconomic class than women of lower socio-economic class.*

Key Words -Anemia, Reproductive age women, Socio-economic status

### **Introduction**

Iron and folic acid deficiency is quite common among the females of reproductive age group. According to the data from the National Family Health Survey 2015-16 conducted by the ministry of health and family welfare, one out of every two women in India is anemic. As per NFHS 2016 anemia is widespread in India—58.6% of children, 53.2% of non-pregnant women and 50.4% of pregnant women were found to be anemic, as India carries the highest burden of the disease.

Despite the rise in the country's health care, anemia continues to be a major concern not only for medical people but also for the rapidly growing population in India. Anemia is the most common nutritional deficiency disorder in the world. Although it affects people of all ages, it affects the most of girls and females of the reproductive age group, especially the pregnant women. According to World Health Organization globally anemia affects 1.62 billion people. There are many types of anemia, such as iron deficiency anemia (IDA), vitamin deficiency anemia, aplastic anemia etc. But IDA is the most prevalent in the world, including India. According to the Journal Nutrition, it is estimated that at least 20 percent of maternal deaths are directly related to anemia.

Whereas Dietary Allowance (RDA) has to be 17 mg / day for men and 21 mg / day for women. Whereas the average Indian balanced diet contains only 7-9 mg of iron / 1,000 kcal. Other factors such as defective iron absorption, repeated pregnancies, iron deficiency at birth, repeated infections in children, etc. are responsible for excessive consumption of IDA in India. Iron is an essential trace mineral found in every cell of the body, which is necessary for physical as well as mental development. It is estimated that 70 percent of the body is found in iron red blood cells and myoglobin in muscle. Iron deficiency, that is, anemia occurs when your body does not have the right amount of iron to make hemoglobin, which helps red blood cells carry oxygenated blood throughout the body. Women need more iron than men because of the amount of iron consumed during periods. About 1 mg of iron is lost every day at the time of bleeding. Iron needs increase during reproductive age, pregnancy and breast feeding. There are two types of dietary iron: heme iron and non-heme iron. Heme iron is in animal sources such as meat, prawns, shrimps, etc. They are easily absorbed compared to non-hem. On the other hand, nonheme iron is found in plant sources. Most iron supplements are unsafe to be synthetically sourced. This can cause

constipation, stomach upset and in some cases vomiting. However, the iron supplements available in the market are clinically evaluated and are considered safe and effective.

#### *Objective of the study*

To know the socio-economic profile of anemic females of reproductive age group

#### **Materials and Methods**

This is a descriptive study carried out in primary health center and hospital of Agra region of Uttar Pradesh. Multistage random sampling technique was used for the selection of sample. Total five hundred anemic women of reproductive age group (15-49 years) who visited to department of Obstetrics Gynecology were selected randomly. The socio-economic data was collected through written Informed consent, obtained from all the individuals who participated in this study. Women were evaluated for various socio-economic and demographic determinants as a cause of IDA in reproductive age.

#### *Statistical analysis*

Frequency and percentage were used to study the demographic variables of the participants such as age of women, marital status, type of family, religion, education, occupation, family income and socio-economic status of women etc.

#### **Results and Discussion**

The data relating to the age group wise distribution of the respondents are presented in Table 1. It is evident that 47.20 percent respondents are found in the age group of 21-25 years.

Table 1: Distribution of respondent according to age

Age group (yrs)	Number	Percentage
<20years	82	16.40
21-25 years	236	47.20
26-30 years	129	25.80
≥30 years	53	10.60
Total	500	100.00

Table 2 shows that large majority (76.20%) of the respondents was married at the age below 20 years. nearly 21 percent female were married between 21-25 years age group and only 2.40 percent respondent were married in between 26-30 years in age group.

Table 3 reveal that 79.40 % of respondent were pregnant and 20.60% respondent were non-pregnant.

Table 2: Distribution of the respondent according to the age at the time of marriage

Age group (yrs)	Number	Percentage
<20years	381	76.20
21-25 years	107	21.40
26-30 years	12	2.40
≥30 years	0	0.00
Total	500	100

Table 3: Distribution according to the pregnancy status of the respondent.

Pregnant	Number	Percentage
Yes	397	79.40
No	103	20.60
Total	500	100

Table 4: Religion wise distribution of the respondent

Religion	Number	Percentage
Hindu	411	82.20
Muslim	89	17.80
Total	500	100

Table 5: Distribution of the respondent according to the caste

Caste	Number	Percentage
General	38	7.60
OBC	163	32.60
SC/ST	211	42.20
Others	88	17.60
Total	500	100

Table 4 revealed that the maximum number of the study subjects 82.20 % were Hindu and 17.8% were Muslim.

Table 5 reveal that 42.2 percent of females of reproductive age group belong to SC/ST, while OBC, General and other category females are comparatively having low percentage i.e. 32.60, 7.60 and 17.60 per cent respectively.

The relevant data relating to this aspect is given in table 6 and indicates that 53.4 per cent respondents were found living in a joint family and remaining 46.6 per cent were living in joint family.

Results enumerated in the table 7 shows that majority of the respondents (52.40%) had family size

5-8 members per household while rest 41.60 per cent respondents belong to the families having less than 5 members.

Monthly income of the family of the respondents from all the sources have been calculated and presented in table 8. The monthly income of the respondent's family was categorized in different slabs starting from below Rs.10000 to above Rs.30000. The table shows that 47 per cent respondents have a monthly income less than 10000.

Table 6: Distribution of the respondent according to the type of family.

Type of family	Number	Percentage
Joint	267	53.40
Nuclear	233	46.60
Total	500	100

Table 7: Distribution of the respondent according to size of family

Size of family	Number	Percentage
<5	208	41.60
5-8	262	52.40
>8	30	6.00
Total	500	100

Table 8: Distribution of the respondent on the basis of family monthly income.

Rs/month	Number	Percentage
<10000	235	47.00
10001-20000	205	41.00
20001-30000	47	9.40

Table 9: Distribution according to occupation of the respondent

Occupation	Number	Percentage
Service	20	4.00
Skilled worker	24	4.80
Business	2	0.40
Cultivation	8	1.60
Unskilled worker	31	6.20
Homemaker	413	82.60
Student	2	0.40
Total	500	100

The perusal of the table 9 indicated that majority of the female respondent are either earners or earning dependents (helping in the earning activities of the family. Off course they are housewives and perform dual responsibility of housekeeping as well as helping or saving the family income. The table 9 shows that nearly 82.60 per cent of the respondents are homemakers.

Table 10: Distribution according to educational background of the respondent

Education	Number	Percentage
Illiterate	118	23.60
Primary	98	19.60
Middle	90	18.00
High school	97	19.40
Intermediate	59	11.80
Graduate/ above	38	7.60
Total	500	100

Table 11: Distribution of the respondent according to the ownership of the house.

Ownership	Number	Percentage
Own	354	70.80
Rented	140	28.00
Relative	6	1.20
Total	500	100

Table 12: Distribution according to type of house of the respondent

Type of house	Number	Percentage
Pucca	334	66.80
Kaccha	16	3.20
Mixed	150	30.00
Total	500	100

Table 13: Distribution according to social participation of the respondent

Social participation	Number	Percentage
None	483	96.60
One	15	3.00
Public leader	2	0.40
Total	500	100

The table 10 indicates that about 23.60 percent females were illiterate while about 68.80 per cent of the female have attained education up to high school and intermediate levels. Only about 7.60 per cent of the respondents were graduate or having education above graduate level.

In Table 11 the ownership of land by the respondents shows that, 29.20 per cent of the respondents' were landless families.

To study the housing structure of the respondent type of house has been studied and summarized in table 12. Majority of the respondents 66.80 percent live in pacca house and 30 percent live in mixed house. Only 3.20 per cent families of women were living in kaccha house.

Table 13 shows that majority of the respondent 96.60 percent were not participation in any social activities only 3 percent respondent were member in one organization.

Table 14 shows anemia is more common in middle and low socio-economic class. In our study, 74.6% of the women belonged to middle socio-economic class; however, Among women suffering from anemia, 12.3% were women with severe anemia and 69.2% women with moderate anemia from the lower socio-economic group. Overall around 21% of women were found to be suffering from severe anemia.

In middle socio-economic class 58.9% women's and in high socio-economic class 67.7% women's had moderate anemia.

Out of 500 anemic females enrolled in the study 397 (79.40%) were found to be pregnant and 381(76.20%) of the respondents was married at early age below than 20 years. 411 (82.20%) respondent belong to Hindu religion with high prevalence 42.20% of anemia in SC/ST community as compare to other castes this is due to the more proportion of economically weaker families in the sample. The majority of the respondent 52.40% had large size of family. Results show that majority of the female respondent 82.60% are housewives and 483 (96.60%) respondents were not participation in any social activities. The prevalence rate of anemia were found high 373(74.6%) in medium socio-economic class but the majority of women with moderate and severe anemia 69.2% and 12.3% respectively belong to low socio-economic class. Higher socio-economic scale leads to lower prevalence of anemia.

Anemia was found to be common in 79.40% of pregnant women, which is also natural as excessive hemoglobin is required for fetal growth/development and nutrition. Another important cause of anemia is illiteracy, present study showed that 23.60% of the women were illiterate, the percentage of educated women from primary to intermediate is around 68.80, But when we look at the whole statistics, we found that about 92.4% of the women are in such a condition that they are not very much aware about nutrition and knowledge regarding anemia.

However 47% of women have a family monthly income of Rs.10000 to 20000 per month was found, but still it was anemic because 52.40% of the women had five to eight members in the family, so it was concluded that the large family size could be responsible for this. approximately 54% of the women

Table 14: Prevalence of anemia in different socio-economic classes

SES Status	Frequency No.	percentage	Mild anemic		Moderate anemic		Severe anemic	
			No.	%	No.	%	No.	%
Low	65	13	12	18.4	45	69.2	8	12.3
Middle	373	74.6	130	34.8	220	58.9	23	6.16
High	62	12.40	19	30	42	67.7	1	1.6

were found living in a joint family, due to which it is possible that no special attention to their personal nutrition.

Marriage at an early age can also be responsible for anemia, in the present study revealed that 76.2% of the women were found to have been married at below 20 years of age.

The present study has specifically revealed that women who belonged to the low socio-economic class were found to have an anemia percentage of 12.3% severe anemia and 69.2% moderate anemia. In high socio-economic class 67.7% women's suffered from moderate anemia while women of high socio-economic class were found to be in a better condition with respect to severe anemia.

### Conclusion

out of all socio-demographic characteristics, woman's educational status was significantly associated with anemia. It is recommended that women's education should be enhanced. The burden of maternal anemia was significantly higher in the study group. Anemia in pregnancy increases maternal and fetal risk. Female literacy, low level of education and lack of knowledge about nutrition, marriage in early age and lack of involvement in social activities (regarding upliftment in the field of awareness and health improvement programs conduct by government and NGO's) indirectly contribute to anemia.

### References

Dhanuka, Goswami, and Goswami, Chakrabarti (2019). Profile of nutritional anemia and its correlation with serum iron, Vitamin B12, and folic acid level among the tribal population of northern districts of West Bengal, India. *Archives of Medicine and Health Sciences*. Vol.7 (2), p.201-5.

Goyal, Rawat (2018). A study of anaemia and its correlates among adolescent girls in schools of Haldwani, India. *International Journal of Research in Medical Sciences*. Vol.6(10), p.3320-3326.

<https://timesofindia.indiatimes.com/india/51-of-indian-women-aged-15-49-anaemic-most-in-world-study/articleshow/61538152>.

Ndukwu, Dienne (2012). Prevalence and sociodemographic factors associated with anaemia in pregnancy in a primary health centre in Rivers State, Nigeria. *Afr J Prm Health Care Fam Med*. Vol.4(1), Art. P.328- 7.

Rajamouli, Ravinder and Reddy, Pambi (2016). Study on prevalence of anemia among pregnant women attending antenatal clinic at rural health training centre (RHTC) and chalmeda anand rao institute of medical sciences teaching hospital, karimnagar, Telangana, India. *International Journal of Contemporary Medical Research* Vol.3(8), p.2388-2391.

Ramachandran and Kalaivani (2018). Prevalence of Anaemia in India and Strategies for Achieving Sustainable Development Goals (SDG) Target. *Proc Indian Natn Science Acad*, Vol. 84(4), pp. 899-912.

Shaikh, Syed and Zahid, Mohd. Khan (2015). An overview of anemia in pregnancy. *Journal of Innovations in Pharmaceuticals and Biological Sciences*, Vol.2 (2), p.144-151.

Sharma, Agarwal and Nagar (2016). Effect of iron folic acid in combination with or without ascorbic acid on hematological and biochemical parameters in pregnant women. *International Journal of Community Medicine and Public Health*. Vol.3(8):p.2070-2077.

Shridevi. (2018). Study of prevalence of anemia among pregnant women attending antenatal checkup in a rural teaching hospital in Telangana, India. *International Journal of Reproduction, Contraception, Obstetrics and Gynecology*, Vol.7(7):p. 2612-2616.

WHO (2014). Global nutrition target 2025: anemia policy brief. (WHO/NMH/NHD/I44) Geneva, World Health Organization.