

STUDY OF THE ANAEMIC CONDITION AMONG GIRL STUDENTS: A CASE STUDY OF TWO COLLEGES IN AHMEDABAD CITY

SHEEBA MENON

Assistant Professor, Biology Department

K.K Shah Jarodwala Maninagar Science College, Ahmedabad, Gujarat, India

Email - ksm51171@yahoo.com, smrpm530@gmail.com

Abstract: The term 'Anaemia' refers to 'a reduction below normal in the concentration of haemoglobin or red blood cells in blood'. Anaemia may be regarded in physiological term as 'reduction in oxygen transporting capacity of blood'. Anaemia is a condition in which the oxygen – carrying capacity of the blood is reduced. Adolescence is a crucial period in a Women's life. Health and nutritional status during this phase is critical for the physical maturity, which in turn influence the health of the future off springs. The growth spurt during Adolescence mounts pressure on the overall nutrition requirements of Adolescent girls. Anaemia is a condition still prevalent in India. In villages, lack of money and less awareness among Women about their health leads to Anaemia. In Urban India, life style and excessive consumption of junk foods and improper dietary awareness cause Anaemia. The girls studying in Colleges of Ahmedabad are not aware of their health especially the exact effect of Anaemia. One hundred girl students in the age group of 17 – 25 years from two colleges were selected for the study. The girl students studying in Arts and Science Colleges were selected and Complete Blood count was also carried out. The diet plan and health awareness is the need of the hour for reducing the anaemic condition in Girls.

Key Words: Adolescent, Anaemia, Blood count, Haemoglobin , nutritional disorder.

1. INTRODUCTION:

Anaemia is a condition in which the oxygen – carrying capacity of the blood is reduced. Many kinds of Anaemia exist, all characterized by reduced numbers of RBCs or decreased amount of haemoglobin in Blood¹. Adolescence is a crucial period in a Women's life. Health and nutritional status during this phase is critical for the physical maturity, which in turn influence the health of the future off springs. The growth spurt during Adolescence mounts pressure on the overall nutrition requirements of Adolescent girls².

Anaemia has been reported to be a major micronutrient deficiency among Adolescent girls across the country³. Iron deficiency is the most common nutritional disorder in the developing world and the most common cause of nutritional anaemia in young children and women of reproductive age⁴.

2. FUNCTIONS OF BLOOD⁵:-

- Nutrient function
- Respiratory function
- Excretory function
- Transport of hormones & Enzymes.
- Regulation of water balance.
- Regulation of Acid base balance.
- Storage function
- Defensive function

3. AIMS AND OBJECTIVES:

- To select girl students from K.K Shah Jarodwala Maninagar Science College, Ahmedabad
- To select girl students from M.P Arts College, Ahmedabad
- To collect brief review through questionnaire.
- To provide food supplements.

4. MATERIALS AND METHODS:

The Questionnaire was considered to be the deciding quarter. The girl students of K.K.Shah Jarodwala Maninagar Science College, Rambaug, Ahmedabad as well as to the girl students of M.P. Arts College for Women, Raipur, Ahmedabad were questionnaire with a view to know their condition and awareness about their health. From

the Questionnaire, it was felt that the girl students were aware of the exact weight and Haemoglobin required for their body. The age group was selected between 17 and 25 years.

5. OBSERVATION TABLE:

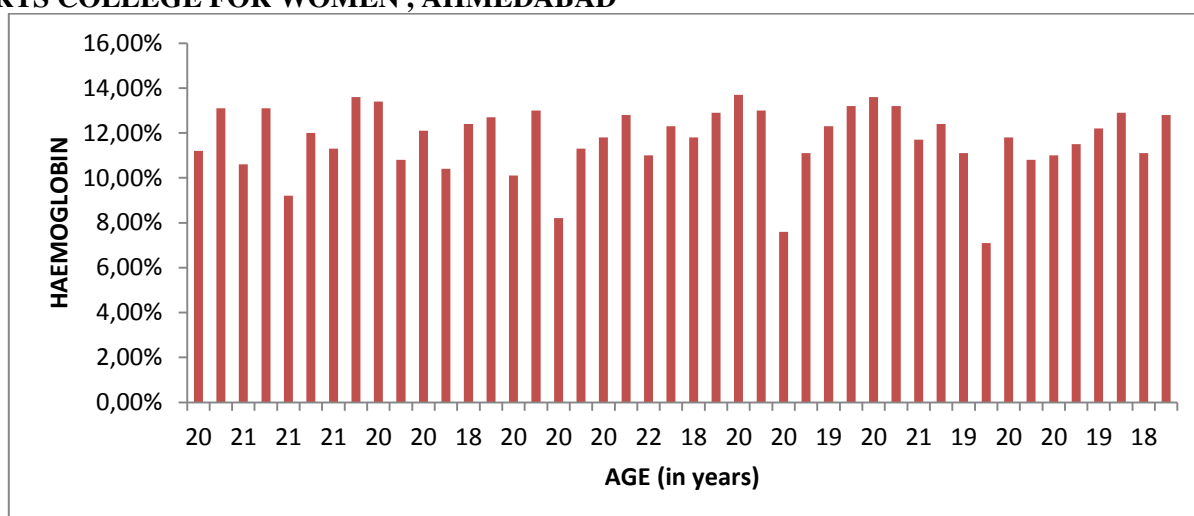
(A) COMPLETE BLOOD COUNT (CBC) OF GIRL STUDENTS FROM K.K.SHAH JARODWALA MANINAGAR SCIENCE COLLEGE, AHMEDABAD

AGE	BLOOD GROUP	HAEMOGLOBIN	TOTAL RBC	TOTAL WBC	PLATELET COUNT
18 yrs	A+	11.40%	4.23mill/cmm	8000/cmm	381000/cmm
18 yrs	B+	9.60%	4.23mill/cmm	7500/cmm	356000/cmm
19 yrs	A+	11.10%	4.82mill/cmm	7300/cmm	339000/cmm
18 yrs	AB+	9.70%	4.30mill/cmm	5500/cmm	446000/cmm
18 yrs	A+	13.10%	4.02mill/cmm	8700/cmm	285000/cmm
18 yrs	B+	11.00%	3.00mill/cmm	7500/cmm	295000/cmm
18 yrs	A+	11.00%	3.47mill/cmm	6900/cmm	290000/cmm
19 yrs	AB+	11.70%	3.70mill/cmm	5300/cmm	446000/cmm
19 yrs	A+	11.90%	4.09mill/cmm	6400/cmm	389000/cmm
18 yrs	B+	13.20%	4.49mill/cmm	6300/cmm	303000/cmm
18 yrs	AB+	11.30%	3.64mill/cmm	7700/cmm	209000/cmm
19 yrs	O+	10.10%	4.58mill/cmm	6900/cmm	217000/cmm
18 yrs	A+	12.50%	4.14mill/cmm	7600/cmm	279000/cmm
19 yrs	B+	12.40%	4.04mill/cmm	5400/cmm	300000/cmm
20 yrs	B+	9.10%	4.68mill/cmm	6900/cmm	765000/cmm
20 yrs	AB+	12.00%	3.89mill/cmm	5300/cmm	356000/cmm
18 yrs	A+	11.90%	3.93mill/cmm	7400/cmm	262000/cmm
18 yrs	B-	13.70%	4.77mill/cmm	7400/cmm	376000/cmm
19 yrs	B+	12.80%	4.00mill/cmm	6600/cmm	248000/cmm
20 yrs	A+	11.00%	4.08mill/cmm	7600/cmm	424000/cmm
18 yrs	O+	13.70%	4.77mill/cmm	7600/cmm	305000/cmm
17 yrs	O+	11.50%	4.39mill/cmm	9100/cmm	273000/cmm
20 yrs	A+	7.80%	3.80mill/cmm	6800/cmm	449000/cmm
19 yrs	O+	12.30%	3.98mill/cmm	6700/cmm	311000/cmm
18 yrs	AB+	13.80%	4.74mill/cmm	10600/cmm	423000/cmm
19 yrs	AB+	12.60%	4.42mill/cmm	9000/cmm	356000/cmm
19 yrs	AB+	12.60%	3.97mill/cmm	9400/cmm	386000/cmm
20 yrs	B+	9.70%	4.85mill/cmm	8500/cmm	473000/cmm
18 yrs	B+	8.80%	4.51mill/cmm	6200/cmm	318000/cmm
23 yrs	A-	12.10%	4.13mill/cmm	7900/cmm	365000/cmm
21 yrs	A+	11.90%	4.19mill/cmm	8600/cmm	290000/cmm
18 yrs	A+	12.60%	4.27mill/cmm	6000/cmm	358000/cmm
20 yrs	B+	11.10%	4.11mill/cmm	7000/cmm	344000/cmm
20 yrs	B+	12.60%	4.22mill/cmm	8800/cmm	343000/cmm
20 yrs	A+	5.60%	3.46mill/cmm	4600/cmm	195000/cmm
20 yrs	B+	12.10%	3.75mill/cmm	6700/cmm	371000/cmm
20 yrs	AB+	8.10%	3.95mill/cmm	5700/cmm	420000/cmm
20 yrs	B+	11.40%	4.65mill/cmm	6100/cmm	350000/cmm
20 yrs	A+	12.00%	3.90mill/cmm	4800/cmm	246000/cmm
18 yrs	O+	10.70%	3.80mill/cmm	7500/cmm	292000/cmm
17 yrs	A+	12.70%	3.52mill/cmm	7000/cmm	181000/cmm
18 yrs	O+	11.40%	3.48mill/cmm	6100/cmm	340000/cmm
18 yrs	B+	12.30%	4.21mill/cmm	11300/cmm	357000/cmm
18 yrs	A+	12.60%	3.66mill/cmm	9000/cmm	346000/cmm
18 yrs	O+	13.50%	4.29mill/cmm	8100/cmm	499000/cmm
18 yrs	A+	9.80%	3.31mill/cmm	6900/cmm	376000/cmm
20 yrs	AB+	14.20%	4.26mill/cmm	10300/cmm	246000/cmm
20 yrs	A+	8.80%	4.46mill/cmm	8700/cmm	389000/cmm
18 yrs	B+	12.20%	3.82mill/cmm	5400/cmm	354000/cmm

19 yrs	B+	12.60%	4.36mill/cmm	8800/cmm	305000/cmm
18 yrs	O+	7.60%	3.98mill/cmm	12000/cmm	585000/cmm
19 yrs	O+	12.10%	3.96mill/cmm	8500/cmm	448000/cmm
20 yrs	O+	11.90%	3.00mill/cmm	8700/cmm	444000/cmm
18 yrs	O+	12.00%	4.59mill/cmm	7500/cmm	352000/cmm
19 yrs	B+	11.90%	4.47mill/cmm	7300/cmm	209000/cmm
19 yrs	O+	12.60%	4.17mill/cmm	7500/cmm	176000/cmm

(B) COMPLETE BLOOD COUNT (CBC) OF GIRL STUDENTS FROM M.P ARTS COLLEGE FOR WOMEN, AHMEDABAD

AGE	BLOOD GROUP	HAEMOGLOBIN	TOTAL RBC	TOTAL WBC	PLATELET COUNT
20 yrs	AB+	11.20%	4.23mill/cmm	6600/cmm	376000/cmm
19 yrs	AB+	13.10%	3.91mill/cmm	6500/cmm	334000/cmm
21 yrs	B+	10.60%	4.43mill/cmm	6400/cmm	263000/cmm
22 yrs	A+	13.10%	4.25mill/cmm	13500/cmm	473000/cmm
21 yrs	A+	9.20%	4.25mill/cmm	4200/cmm	372000/cmm
20 yrs	O+	12.00%	4.49mill/cmm	6800/cmm	503000/cmm
21 yrs	A+	11.30%	5.07mill/cmm	9600/cmm	390000/cmm
20 yrs	B+	13.60%	3.60mill/cmm	8600/cmm	260000/cmm
20 yrs	AB+	13.40%	4.26mill/cmm	6800/cmm	293000/cmm
20 yrs	AB+	10.80%	3.96mill/cmm	6600/cmm	420000/cmm
20 yrs	AB+	12.10%	3.91mill/cmm	7700/cmm	358000/cmm
19 yrs	A+	10.40%	4.03mill/cmm	5100/cmm	344000/cmm
18 yrs	O+	12.40%	4.28mill/cmm	5900/cmm	258000/cmm
19 yrs	AB+	12.70%	4.04mill/cmm	7100/cmm	329000/cmm
20 yrs	O+	10.10%	4.33mill/cmm	6800/cmm	458000/cmm
19 yrs	A+	13.00%	4.39mill/cmm	7900/cmm	403000/cmm
20 yrs	B+	8.20%	3.98mill/cmm	5600/cmm	435000/cmm
20 yrs	A+	11.30%	3.98mill/cmm	11900/cmm	256000/cmm
20 yrs	B+	11.80%	4.00mill/cmm	8800/cmm	380000/cmm
19 yrs	A+	12.80%	4.21mill/cmm	10900/cmm	270000/cmm
22 yrs	B+	11.00%	4.39mill/cmm	8100/cmm	417000/cmm
21 yrs	B+	12.30%	4.47mill/cmm	8800/cmm	472000/cmm
18 yrs	A+	11.80%	4.64mill/cmm	7700/cmm	377000/cmm
19 yrs	O+	12.90%	4.37mill/cmm	6600/cmm	229000/cmm
20 yrs	A+	13.70%	4.41mill/cmm	8700/cmm	351000/cmm
18 yrs	B+	13.00%	3.90mill/cmm	9800/cmm	228000/cmm
20 yrs	A+	7.60%	4.04mill/cmm	5500/cmm	464000/cmm
19 yrs	B+	11.10%	4.15mill/cmm	7800/cmm	339000/cmm
19 yrs	O+	12.30%	3.11mill/cmm	7900/cmm	124000/cmm
18 yrs	B+	13.20%	4.21mill/cmm	11200/cmm	311000/cmm
20 yrs	B+	13.60%	4.17mill/cmm	5800/cmm	223000/cmm
19 yrs	AB+	13.20%	4.13mill/cmm	9300/cmm	254000/cmm
21 yrs	O+	11.70%	3.83mill/cmm	6800/cmm	332000/cmm
20 yrs	A+	12.40%	4.31mill/cmm	5200/cmm	316000/cmm
19 yrs	A+	11.10%	4.11mill/cmm	6200/cmm	324000/cmm
20 yrs	B+	7.10%	4.25mill/cmm	7700/cmm	448000/cmm
20 yrs	B+	11.80%	3.83mill/cmm	5700/cmm	82000/cmm
19 yrs	B+	10.80%	3.52mill/cmm	9900/cmm	258000/cmm
20 yrs	B+	11.00%	4.59mill/cmm	7400/cmm	359000/cmm
18 yrs	O+	11.50%	3.63mill/cmm	7100/cmm	322000/cmm
19 yrs	O+	12.20%	2.78mill/cmm	5900/cmm	241000/cmm
18 yrs	B+	12.90%	3.45mill/cmm	6500/cmm	228000/cmm
18 yrs	B+	11.10%	3.62mill/cmm	10300/cmm	363000/cmm
19 yrs	AB+	12.80%	3.71mill/cmm	6900/cmm	413000/cmm

K.K.SHAH JARODWALA MANINAGAR SCIENCE COLLEGE, AHMEDABAD**M.P ARTS COLLEGE FOR WOMEN , AHMEDABAD****6. CONCLUSION:**

Adolescent girls in India need Iron supplementation which in turn will improve pre-pregnancy Haemoglobin status and Iron status. To build Iron and Folate reserves by supplementation/dietary diversification and education should be enhanced. The supplementation will meet the growth, menstruation and future reproductive process⁶. The positive impact of Vitamin A and C supplementation along with Iron is successful for combating Iron deficiency Ananemia⁷.

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