

The Prevalence of Anemia Among Adolescent Girls – A Study

***Dr. C.SUBATHRA,**
Assistant Professor of Commerce,
Pioneer Kumaraswamy College, Nagercoil – 3.

Dr. Susan William ,
Consultant obstetrician & Gynaecologist,
well women clinic and care centre, Nagercoil.

ABSTRACT

The study aim to determine the prevalence of anemia among adolescent girls. Selected a group of 83 College students age ranging from 18-19 Years as the sample for the purpose of this study as convenient sampling. Hb level of girls were estimated using Portable hemoglobin analyzers by the staff nurse form a local hospital. Results of Hb investigation were conveyed to the participants. Applied frequency and percentage anlysis to check the level of Hb among the adolescent girls. It was identified that 20.5 % of Students have below 9 to 10gm of Hb level and 61.45% of students have 10 to 12 gm Hb level and only 10.8% of students have above 12 gm of Hb level which is the minimum Hb level required for a Adolescent girl. The overall prevalence of anemia among adolescent girls was found to be high. Emphasizes is needed for corrective measures of anemia and iron deficiency in girls. There is need for regular supply of iron and folic acid tablets to improve nutritional status of adolescent girls.

Key word: Adolescent, Anemia, Girls, Prevalence

INTRODUCTION

Nutritional anemia is one of India's major public health problems. In India,

adolescent girls, who constitute a sizable segment of its population form a vulnerable group and are at a greater risk of morbidity

and mortality. Adolescence has been defined by WHO as the period of life spanning the ages between 10-19. It is the formative period of life when maximum amount of physical, psychological and behavioral changes take place. This is a vulnerable period in the human life cycle for the development of nutritional Anaemia. Anemia is widely prevalent in India, a developing country and affects both sexes and all age groups. Among adolescents, girls constitute a vulnerable group particularly in developing countries. In a family with limited resources, the female child is more likely to be neglected. The added burden of menstrual blood loss (normal/abnormal) precipitates the crisis too often. This study was planned to assess the magnitude of problem of anemia in adolescent girls.

HEMOGLOBIN AND ITS IMPORTANCE

Oxygen is the most essential element required to sustain human life. If an adequate supply of oxygen is not circulated throughout the body to vital organs and tissues, brain damage, organ failure and

death can result. Hemoglobin (Hb), the iron-containing respiratory protein in red blood cells, is responsible for transporting oxygen from the lungs to the rest of the body. Measured in grams per deciliter (g/dL), hemoglobin levels indicate the blood's ability to carry oxygen and iron. Too little iron interferes with vital functions and leads to morbidity and mortality.

Hemoglobin is a protein in your red blood cells that carries oxygen to your body's organs and tissues and transports carbon dioxide from your organs and tissues back to your lungs. If a hemoglobin test reveals that your hemoglobin level is lower than normal, it means you have a low red blood cell count (anemia). Anemia can have many different causes, including vitamin deficiencies, bleeding and chronic diseases.

Normal hemoglobin levels differ between males and females, ranging from:

- 12-16 g/dL for women and
- 13-18 g/dL for men

A low hemoglobin level is called anemia, which can indicate a variety of

serious medical conditions that may require

immediate treatment.

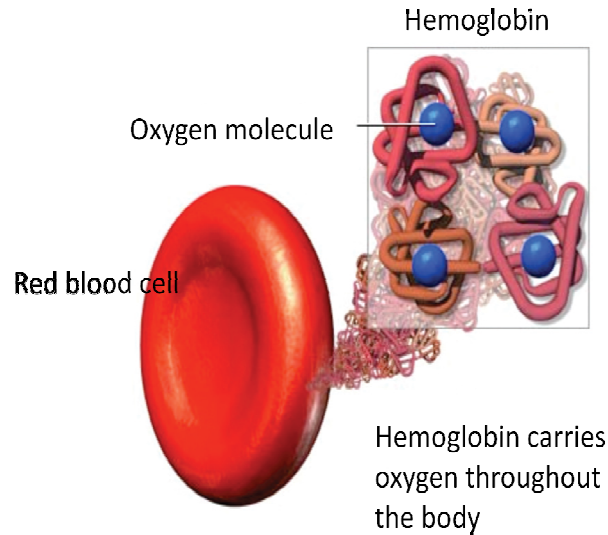


Fig. 1. Hemoglobin, Oxygen Molecules and Red blood Cells

THE GLOBAL BURDEN OF ANEMIA

More than 2 billion people worldwide are anemic.

Iron Deficiency Anemia (IDA) accounts for at least half of all anemia cases worldwide.

- Causes almost 1 million deaths a year. o
- Recognized as a top-ten contributing factor to the global burden of disease. O

- Results in lost cognitive function and lost productivity—costing \$50 billion annually in gross domestic product (GDP) losses worldwide.

(Source: Masimo Noninvasive Total Hemoglobin technology, please visit: www.masimo.com)

OBJECTIVES

- To determine the prevalence of anemia among adolescent girls

analyzers by the staff nurse from a local hospital. Results of Hb investigation were conveyed to the participants. Applied frequency and percentage analysis to check the level of Hb among the adolescent girls.

METHODOLOGY

Selected a group of 83 College students age ranging from 18-19 Years is the sample taken for the purpose of this study as convenient sampling. Hb level of girls were estimated using Portable hemoglobin

FINDINGS AND ANALYSIS

The table below shows the Frequency and Percentage of Hemoglobin Level of 83 students, who checked their hemoglobin level.

Table.1. Frequency and Percentage of Hemoglobin Level

Hemoglobin Level	No. of Students	Percentage
Below 7	2	2.4
7 to 8	2	2.4
8 to 9	2	2.4
9 to 10	17	20.5
10 to 12	51	61.45
12 & above	9	10.8
Total	83	100

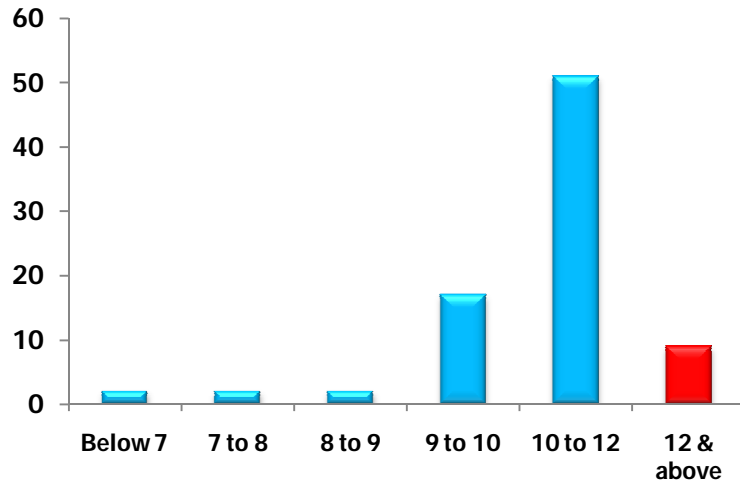


Fig.2. Frequency and Percentage of Hemoglobin Level

It was identified that 20.5 % of Students have below 9 to 10gm of Hb level and 61.45% of students have 10 to 12 gm Hb level and only 10.8% of students have above 12 gm of Hb level which is the minimum Hb level required for a Adolescent girl.

SUGGESTION

The following suggestions are provided based on the findings of the present study:

1. Proper counseling and health education must be given to college students.
2. Students who have insufficient Hb level i.e., ranging from 10-12 and below 10 are advised to take more green vegetables and healthy food in their daily food.
3. Students who have Hb level below 7 are advised to take deworming and iron tablets as the Supplement.

CONCLUSION



The overall prevalence of anemia among adolescent girls was found to be high. Emphasizes is needed for corrective measures of anemia and iron deficiency in girls. There is need for regular supply of iron and folic acid tablets to improve nutritional status of adolescent girls .

REFERENCES

- [1] World Health Organization. Programming for adolescent health and development. WHO Tech Rep Ser No. 886.
- [2] Sanjeev M Chaudhary, Vasant R Dhage. A study of anemia among adolescent females in the urban area of Nagpur.
- [3] ICMR Bulletin. A reappraisal of the iron status indicators. Vol. 27.1997. p.1
- [4] Tanuja Rastogi, Collin Mathers: Global burden of anemia of iron deficiency anemia in the year 2000, 2002, p.g; 1,2
- [5] Rajaratnam J, Abel R, Asokan JS, Jonathan P. Prevalence of anemia among adolescent girls of rural Tamil Nadu. Indian Pediatr. 2000; 532-6.
- [6] Toteja GS, Singh P, Dhillion BS, Saxena BN, Ahmed FU, Singh RP: Prevalence of anemia among pregnant women and adolescent girls in 16 districts of India. Food Nutr Bull 2006; 27: 311-5
- [7] Bulliyy G, Mallick G, Seth GS, Kar SK. Hemoglobin status of non school going girls in8] Rana T. Age at menarche; Nutritional status and other associated factors in urban Hyderabad girls. Ph.D. Thesis submitted to National Institute of Nutrition, Hyderabad-1983.
- [8] Golden, S. A. R. (2011). An Analysis Of Mental Stress In Heavy Alloy Penetrator Project, Tiruchirappalli, SELP Journal of Social Science, Vol- 13, Issue- 1, P- 93 -97.
- [9] Seshadri: a data base iron deficiency anemia in India. Prevalence, etiology,consequences and strategies for

control, task force for micronutrients malnutrition control, Department of Women and Child Development, Ministry of Human Resource, Development, New Delhi-1996.

[10] Mehta M. Effectiveness of daily/weekly iron and folic acid supplements in anemic adolescent girls. UNICEF funded final report of research project, Bombay urban ICDS Project 1998:21-25.

[11] Kotecha P.V; Patel R.Z and Nirupam S. Prevalence of anemia among adolescent school girls, Vadodara, August -2000.

[12] Agrwal K.N. Assessment of prevalence of anemia and iron stores in response to daily/weekly iron folate supplements in adolescent girls (10- 18) from urban slums of East Delhi. UNICEF Contract No. 95/0075, 1998; ppi- 9