

## A STUDY ABOUT ANEMIC CONDITION OF ADOLESCENT GIRLS BY HEMOGLOBIN ESTIMATION AND DIETARY SURVEY

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Iron deficiency anemia is widely prevalent among children, adolescent girls and expectant and nursing mothers in all developing countries. The body needs iron to make hemoglobin. If there isn't enough iron available, hemoglobin production is limited, which in turn affects the production of red blood cells (RBCs). A decreased amount of hemoglobin and RBCs in the bloodstream is known as anemia. Because RBCs are needed to carry oxygen throughout the body, anemia results in less oxygen reaching the cells and tissues, affecting their function. Iron-deficiency anemia (IDA), often caused by insufficient iron intake of iron. Iron-deficiency anemia doesn't develop immediately. Instead, a person progresses through stages of iron deficiency, beginning with iron depletion, in which the amount of iron in the body is reduced while the iron in RBCs remains constant. If iron depletion isn't corrected, it progresses to iron deficiency, eventually leading to IDA.

### OBJECTIVES OF THE STUDY

To estimate the hemoglobin level and find out anemic condition in adolescent girls. To find out symptoms, causes of anemia & dietary pattern of respondents.

**METHODOLOGY-** • The study was based on experimental and serve method. • The sample was selected by purposive random sample • The size of Sample was 100. • Adolescent girls were selected as sample. • Experiment was done by taking blood from each girl for estimating HB. • Hemoglobin was measured hemo sytro method. • For measuring Hb panels of Doctor, Laboratory technicsyn, My self & School staff were conducted the program. • This was the team work of school health program , held by department of health, Gujarat govt. • Serve was done by interview schedule method on general symptoms of anemia & diet pattern of adolescent. • Statically analysis was shown by frequency percentage, average & Z test.

**DIAGNOSIS-iron deficiency. The following blood**

### tests may indicate iron deficiency:

- A complete blood count (CBC) may reveal low hemoglobin levels and low hematocrit (the percentage of the blood made up of red blood cells). The CBC also gives information about the size of the RBCs. RBCs with low hemoglobin tend to be smaller and less pigmented.
- The reticulocyte count measures the number of immature red blood cells being produced. In IDA, this test indicates that the rate at which RBC are being made is lower than expected from the low amount of hemoglobin in the blood.
- Serum iron directly measures the amount of iron in the blood, but may not accurately reflect how much iron is concentrated in the body's cells.
- Serum ferritin reflects total body iron stores. It's one of the earliest indicators of depleted iron levels, especially when used in conjunction with other tests, such as a CBC.

### RESULT & DISCUSSION

**Table no.1: Table showing level of hemoglobin in adolescent girl**

sr.no.	Hemoglobin level gram (%)	Frequency	Percentage
1	Below 8	09	09
2	8 to 10	22	22
3	10 to 12	47	47
4	12 to 14	22	22
Total		100	100

Data revealed that only 22% adolescent girl having normal Hb i.e. 12 to 14 gm% but 9% girls having below 8gm% Hb i.e. sever conditional anemia.22% girls were nearer to anemic & level was 8 to 10 gm% Hb. Wherever 47% girls having 10 to 12 gm% Hb. This level also not so good but its ok

**Table no.2: Table showing symptoms of anemia seen during observation**

Sr.no.	Symptoms	frequency	percentage
1	fatigue and weakness	31	31
2	rapid heartbeat	09	09
3	irritability	14	14
4	decreased appetite	31	31
5	pale skin	39	39
6	Dizziness & giddiness	25	25

Common symptoms were shown during observation & serve. The anemic condition of girls was caused by some factors which were:

- On going blood loss, most commonly from menstruation period .
- poor absorption of iron by the body periods of rapid growth Majority 47% of respondents having poor diet. They took less leafy vegetable. Poor consumption of food & taking junk foods. 53% respondents having leafy vegetables, fruits & green meals in a winter & monsoon seasons. So they maintain Hb level.

**Table no. 3: Table showing z value of Hemoglobin level among the respondents.**

sr.no.	Level of HbGm(%)	N	Mean	S.D	Z value
1	Below 8	9	6.98	0.324	0.467
2	8 to 10	22	9.16	0.524	0.470
3	10 to 12	47	10.86	0.566	0.4815
4	12 to 14	22	12.88	0.591	0.479
	<b>Total</b>	100	10.587	1.76	0.4841

Table shown average Hb level of adolescent girl the average Hb of total population was 10.587. So it predicts that every adolescent girl was under the std. Hb & all have anemia.

**SUMMARY & CONCLUSION** • Iron anemia shown most common in developing countries like India.

- Majority 31% respondents having anemia due to of poor diet, on going blood loss during menstruation & today's fashion trend of slimness.
- 53% respondents quit good in food habits & taking care of health

#### **Treating Iron Deficiency Anemia**

- To give iron supplementary medicines with multivitamin or folic acid for 3 months.
- To give advice for iron rich diet like green leafy vegetable & citrus food, whole legumes, eggs etc. to change habit of food consumption.
- Regular health checks up.

#### **REFERANCE**

• Patel H.(2008)-unpublished data of health checkup programe held by health department, Mehsana District Gujarat.