

Iron Deficiency Anemia: Statistical information of adolescent girls in Goraj village of Vadodara

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ABSTRACT:

Iron deficiency anemia (IDA) is a type of anemia which lack of iron components in the red blood cells. It is caused by blood loss, insufficient dietary intake, or poor absorption of iron from food. A teen with iron deficiency would have lower hemoglobin production and consequently lower RBCs. A study was conducted to evaluate the effectiveness of information booklet on knowledge regarding prevention of iron deficiency anemia among adolescent girls at Goraj high school, Waghodia, Vadodara, Gujarat". Using convenient sampling for data collection were structured knowledge questionnaire. A pre-experimental evaluative study was conducted using one group pre-test post-test research design. The mean post test knowledge score (13.96) is higher than mean pretest knowledge score (9.04). The post test knowledge score of adolescent girls regarding IDA knowledge was significantly higher at (0.5) level of significance of paired 't' test. Calculated value (3.48) was higher than paired 't' table value (16.283) at (0.5) level of significance.

Key words: knowledge, Information booklet, Anemia deficiency.

Introduction

Health is a fundamental right of human being. It is a general condition of a person in all aspects and also it is resource for everyday life. Health is a positive concept emphasizing social and personal resource as well as physical capacity¹.

According to WHO, Health is a state of complete physical, mental, social and spiritual wellbeing and not merely the absence of disease or infirmity.

Anemia is worldwide major health problem often ignored in developed country. Adolescence has been defined as a period of life span, the age between 10 to 19 years. It is a formative period of life when maximum amount of physical, psychological and behavioral changes takes place. Adolescence is a critical stage in the life cycle

when health of the female affected due to growth spurt, beginning of menstruation, poor intake of iron due to poor dietary habits and gender bias which may lead to iron deficiency anemia among the adolescent girls.

The average monthly menstrual blood loss is about 45 ml and it causes the loss about 22 mg of iron. Anemia during adolescence limits its growth and delays the onset of menarche, which may later turn into cephalo pelvic disproportion. About 75 % teenage girls do not meet their dietary requirement for iron, compare to only 17% of teenage boys.

Total nutrient requirement are increased during adolescence period to support a dramatic growth and development. Eating right food at right time will prevent nutritional deficiencies especially iron deficiency disorder.

Iron deficiency is the most prevalent micro nutrient deficiency reported round the globe. It is significant among adolescents. IDA is decrease in the number of red cell in the blood caused by too deficiency of iron. Iron is a key part of hemoglobin, the oxygen carrying protein in the blood. Body normally gets iron through diet and by recycling iron from old red blood cell. Without iron, the blood cannot carry oxygen effectively. Oxygen is needed for every cell in the body to function normally. Iron deficiency and anemia are associated with impaired cognitive functioning, lowers the school achievement and most likely lowers the physical work capacity.

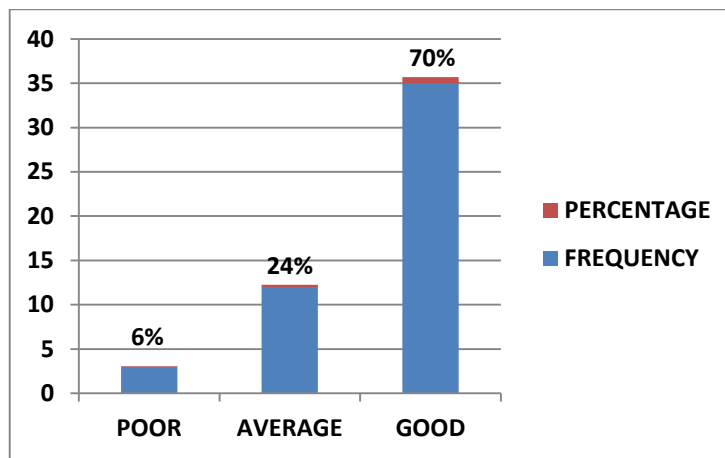
Material Methods

The study was conducted on sample of selected 50 adolescent girls selected area of Goraj high school, Waghodia, Vadodara using convenient sampling. The instruments used for data collection were structured knowledge questionnaire. The data obtained was tabulated and analyzed in terms of objectives of the study and inferential statistics. A pre-experimental evaluative study was conducted using one group pre-test post-test research design.

Results

The data presented in table indicates that maximum adolescent girls were of (100%) 17-18 years. Majority of adolescent girls were Hindu 88% (44) and minimum number of adolescent girl's were Muslim 12% (06) . Maximum 56% (28) girl's mother education was formal education and minimum 4% (02) girl's mother education was higher education. Maximum 46% (23) girls father education was formal education and minimum 8% (04) girls father education higher education. Maximum 74% (37) girls were from joint family and minimum 6% (3) girls were from extended family 8%(3) were from extended family. Maximum 42% (21) girls monthly family income is below Rs 10,000 and minimum 8%(4) girls monthly family income is above Rs 20.000 . Maximum 70% (35) girls take mixed diet and minimum 30% (15) girls take vegetarian diet.

Graph 1: Findings related to posttest knowledge score of iron deficiency anemia among adolescent girls



Results related to evaluate the effectiveness of information booklet on knowledge regarding prevention of iron deficiency anemia among adolescent girls

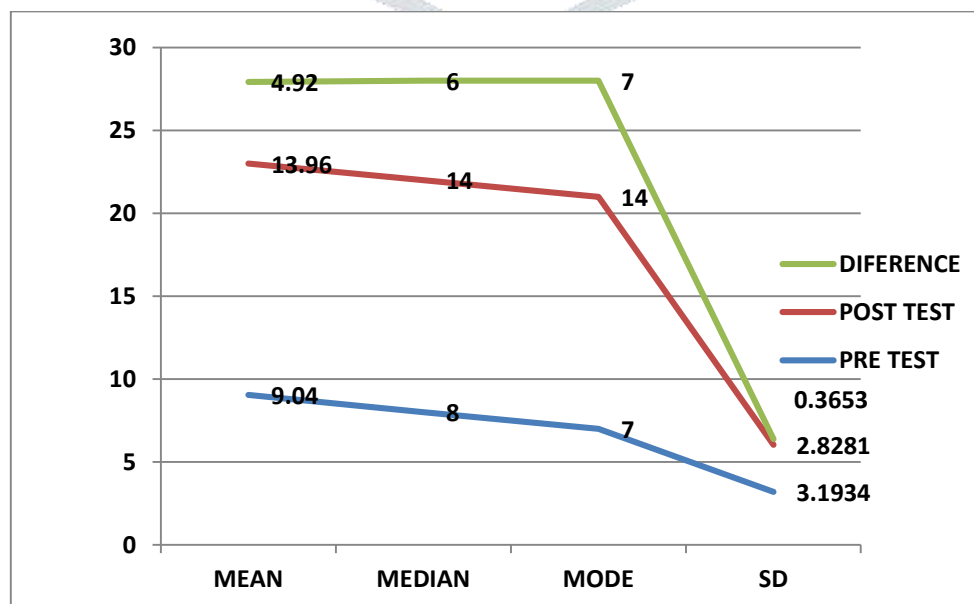
The Mean Post-test Knowledge Score (13.96) was higher than the Pre-test Knowledge Score (9.04). The calculated ‘t’ value (3.48) was greater than the table value ($t_{59} = 16.283$) at $p < 0.00279$ level of significance. Hence the research hypothesis H_1 was accepted. And showing there will be significant gain in knowledge regarding iron deficiency anaemia among adolescent girls after the implementation of information booklet.

TABLE NO: 1

AREA OF ANALYSIS	MEAN	MEDIAN	MODE	STANDARD DEVIATION
Pre test	9.04	08	7	3.1934
Post test	13.96	14	14	2.8281
difference	4.92	06	07	0.3653

Table reveals that mean difference is 4.92, median is 06, mode is 07 and standard deviations 0.3653.

Graph 2: Findings related to mean posttest knowledge score was higher than the pretest knowledge score.



Conclusion

Based on the findings of the study, the following conclusions have drawn. There was evident increase in the knowledge scores in all the areas included in the study after administration of Booklet information.

REFERENCE

1. Asian Journal of Nursing Education and Research, Volume 06, Issue 01, January-March 2016, website: www.anypublication.org Page no:74-78
2. www.rguhs.ac.in.>cdc>05_N010_40010
3. Asian Journal of Nursing Education and Research, Volume 06, Issue 01, January-March 2016, website: www.anypublication.org Page no:74-78
4. Asian Journal of Nursing Education and Research, Volume 06, Issue 01, January-March 2016, website: www.anypublication.org Page no:74-78
5. <https://www.merriamwebster.com.>knowledge>
6. <https://www.merriamwebster.com.>effectiveness>
7. <https://www.merriam-webster.com.>Iron> deficiency
8. <https://www.merriamwebster.com.>Anemi>
9. <https://www.merriam-webster.com.>Adolescence>
10. Vir SC. singh N. Nigam AK. Jain R. et. al weekly iron and folic acid supplementation with counseling reduce anemia in adolescent girls: A large scale effectiveness study in Uttar Pradesh, India. Health nutrition and development center New Delhi 2008 September. Page no:186 -194
11. Sen A. Kanani SJ. Deleterious functional impact of anemia on young adolescent school girls. development India pediatric department of food and nutrition. M.S University of Baroda. Vadodara. Gujarat. India. 2006.