Co-Relation Between Supplementation of Dietary Iron and Medicines With Haemoglobin Percentage of Selected Anaemic College Going Girls.

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ABSTRACT
The most important segment of the population from the point of view of quality of future of generation is todays young girls who are just on the threshold of marriage and motherhood. Adolescent and college going girls constitute nearly 1/10th of the population and form an extremely important part of the community. Anemia is important nutritional problem among college going girls so, the study is to assess and detect and remove anemia from the sufferer group. The college going girls have significant effect on nutritional status after the supplementation of dietary iron and medicinal supplementation. The Hb level of students is ranged between 6.7 to 10.8 gm/dl before supplementation and after supplementation the Hb percentage ranged between 8.8 to 12.9 gm/dl so, there is a need to implement such health programmes to remove anemia of college going girls group from population.

Introduction :-
The anaemia is a big problem before developing country anaemia is another important nutritional problem affecting all segments of the population. In general adolescents and young girls and women and pregnant women are in particular. In the latter groups prevalence of anaemia may be as high as 60-70%. Anemia in our country is essentially due to iron deficiency although in children and pregnant women folate deficiency also plays a part. Although our diets contain fairly good amount of iron but its absorption is poor i.e. 2 to3%. Anaemia can be abbreviated by environmental factors which leads to blood loss e.g. hookworm infestation. All the available information indicate that anaemia can be prevented by increase iron intake in the population.

So, there is need of supplementation of iron rich foodstuffs with vitamin C as it helps in iron absorption to the sufferer group of population.

Selection of sample and tool :-
45 students of B.Sc. (Home - science) course were selected to detect the anemia. The present study was carried out in food and Nutrition laboratory of Sevadal Mahila Mahavidyalaya, Nagpur. The anaemia can be detected by hemoglobin percentage and clinical symptoms of students.

Methodology :-
The haemoglobin percentage of 45 student (college going girls) were examined 43 students are found to be anaemic with different grades of anaemia and 2 student found to be in normal range of haemoglobin. For awareness about anaemia questionnaire and interview methods are applied. The 43 anaemic girls are provided with supplementation of dietary iron and vitamin c with medicines (full 365 suspension, ferimon syrup, and iron tablets) supplementary foods given are tirangi puri (Beet juice + spinach juice + wheat flour + Ragi flour), Khajur Burfi, Bajra Roti, Groundnut jaggery Ladoo, Til papdi, missi Roti, orange juice Dry fruit ladoo etc.

Nutrients present in different nutritious Recipes:-
1) Trangi puri :- Iron, Calcium, Carbohydrate
2) Khajur Burfi :- Fat, Carbohydrate, iron
3) Groundnut coated with Jaggery :- Iron, energy, fat protein.
4) Coconut Burfi :- Fat energy, calcium, iron.
5) Dry fruit ladoo :- fat, energy, calcium, iron, protein, vitamin and minerals.

Result and Discussion :-
From the questionnaire method socio- economic status of the college girls was found out. The normal Haemoglobin level of female is 12-16 gm/dl. The Hb. Level of college girls is ranged between 6.7 to 10.8 gm/dl before dietary and medicinal supplementation, and after supplementation Hemoglobin percentage is in between 8.8-12.9 gm/dl The Hb percentage is increased after supplementation and girls are more conscious and aware about anemia. The progress in Hb level and awareness both are equally found.

Table 1 percentage of anaemia of college going girls

<table>
<thead>
<tr>
<th>Age in Years</th>
<th>N = 43</th>
<th>Anaemic</th>
<th>Percentage of anaemic</th>
<th>SD</th>
<th>Coeff of variation</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-20</td>
<td>N = 09</td>
<td></td>
<td>20.93%</td>
<td>10.56</td>
<td>0.81</td>
</tr>
<tr>
<td>21-22</td>
<td>N = 22</td>
<td></td>
<td>55.81%</td>
<td>9.28</td>
<td>1.74</td>
</tr>
<tr>
<td>23-24</td>
<td>N=12</td>
<td></td>
<td>27.90%</td>
<td>22.29</td>
<td>1.41</td>
</tr>
</tbody>
</table>

Fig.1: Percentage of anaemia of selected college going girls

Keywords
Dietary iron, Anaemia, Supplementation, College Going Girls
Summary and conclusion :-
The Supplementation provided to the young college going girls brought about significant improvements in their nutritional status with dietary and medicinal supplementation nutrition education given results in better improvement in haemoglobin percentage of students. The college going girls eat outside foods on large amount and they do not take balanced diet regularly what they eat are not nutritious, so they are susceptible to anaemia and need to aware about iron deficiency.

From the study, students are more conscious about their Haemoglobin percentage, since anaemia is still important public health problem specially in college going girls. So there is a need to implement Health education to the college going girls.