Nutritional Anaemia among Adolescent Girls: A study of adolescent beneficiaries of SABLA/SAG Scheme under ICDS.

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Abstract

Iron deficiency anaemia adversely affects transport of oxygen tissues and results in diminished work capacity and physical performance. During adolescents, iron deficiency anaemia can result in impaired physical growth, poor cognitive development, reduced physical fitness and work performance and lower concentration on daily tasks. Iron deficiency in adolescents' girls influences the entire life cycle.

Objective: This study aimed at assessing nutritional anaemia of adolescent girls of rural areas of Banka District receiving the benefits of the nutritional intervention and IFA Supplementation of SABLA/SAG yojana under the ICDS and other related schemes.

Method: Anthropometry measurement, services of SABLA programme, test of haemoglobin level, SABLA Kishori Card, Iron Folic Acid (IFA) supplementation process and status Observation & Questionnaire method were used as tools.

Result: Out of 600 Adolescents Girls (AGLs) from Scheme of Adolescent Girls (SABLA) of 50 Rural AWCs, the nutritional status of 85% is undernourished i.e. according to the BMI only 15 % girls are in normal range. 78% AGLs are anaemic in which 24% moderate and 9 % are severe anaemic i.e. Hb level <7g/dl. More than 80% AGLs under SABLA at Banka District are undernourished whereas 85 % are anaemic. Consumption of IFA supplements were not implemented in this area properly.

Key Words: Nutrition, Adolescent Girls, Nutritional Anaemia, Undernutrition, Iron folic Acid

Introduction:

Iron deficiency anaemia adversely affects transport of oxygen tissues and results in diminished work capacity and physical performance. During adolescents, iron deficiency anaemia can result in impaired physical growth, poor cognitive development, reduce physical fitness and work performance and lower concentration on daily tasks. Iron deficiency in adolescents' girls influences the entire life cycle. Anaemic girls have lower pre-pregnancy stores of iron and pregnancy is too short a period to build iron stores to meet the requirements of the growing foetus. Anaemic adolescents' girls have a higher risk of preterm delivery and

having babies with low birth weight. Regular consumption of iron folic acid supplements along with a diet rich in micronutrients is essential for prevention of iron deficiency anaemia in adolescent girls and boys.

The prevalence of undernutrition and anaemia among adolescent girls in India is alarmingly high. Global and national evidence was used to advocate for the need to implement large scale programmes for the control of anaemia in adolescent girls. As a result, model programmes were initiated in a selected number of districts and states between 2000 and 2005 to assess the cost and effectiveness of strategies to reduce the prevalence and severity of anaemia among adolescent girls. Once the effectiveness and low cost of these interventions were established, the Adolescent Girls Anaemia Control Programme was scaled up in 13 states of India with state government funds, and over 27 million adolescent girls were reached by the end of 2011 through the Education, ICDS and SABLA platforms. As the main partner of state governments on Maternal and Child Nutrition, the role of UNICEF has evolved from intense programme support (design, implementation, monitoring and evaluation) to a technical advisory role in the consolidation and expansion phases. Collaboration and convergence among the Ministry of Health and Family Welfare, the Ministry of Women and Child Development and the Ministry of Human Resource Development at the national and state level have been critical for going to scale. The lessons learned from this decade of programme experience suggest that the Adolescent Girls Anaemia Control Programme has the potential to become an important platform for intersectoral convergence among key government departments and UNICEF programmes to empower adolescent girls, reduce gender and social inequities, and break the intergenerational cycle of undernutrition and deprivation in India. 2,3,4

The Govt initiative programme of weekly iron folic acid supplementation is an evidence based programmatic response to the prevailing anaemia situation amongst adolescents' girls and boys through supervised ingestion of IFAs and bi-annual deworming. The programme envisages benefiting all adolescents' girls and boys enrolled in all government and government aided schools including students from class 6-12, besides out of school girls. The long-term goal of the programme is to break the intergenerational cycle of anaemia and long-term impact on the health of the young people and the short-term benefits is of nutritionally improved human capital. The success of the programme depends on the adherence of the programme protocol, appropriate linkages and mechanisms for utmost intersectoral convergence with the school education department and social welfare department in the state. (WIFS-NRHM-2015)

Anaemia Mukt Bharat Abhiyaan : - The Anaemia Mukt Bharat- intensified Iron-plus

Initiative aims to strengthen the existing mechanisms and foster newer strategies for tackling anaemia. It focuses on six target beneficiary groups, through six interventions and six institutional mechanisms to achieve the envisaged target under the POSHAN Abhiyan. National AMB PMU MoHFW, GoI.

Objectives:

The main objective of the research study was to assess nutritional anaemia of Adolescent girls of rural areas of Banka District receiving the benefits of the nutritional intervention and IFA Supplementation of SABLA/SAG yojana under the ICDS and other related schemes. The age group of 11-14 yrs, enrolled at AWCs under SABLA Scheme of Banka District.

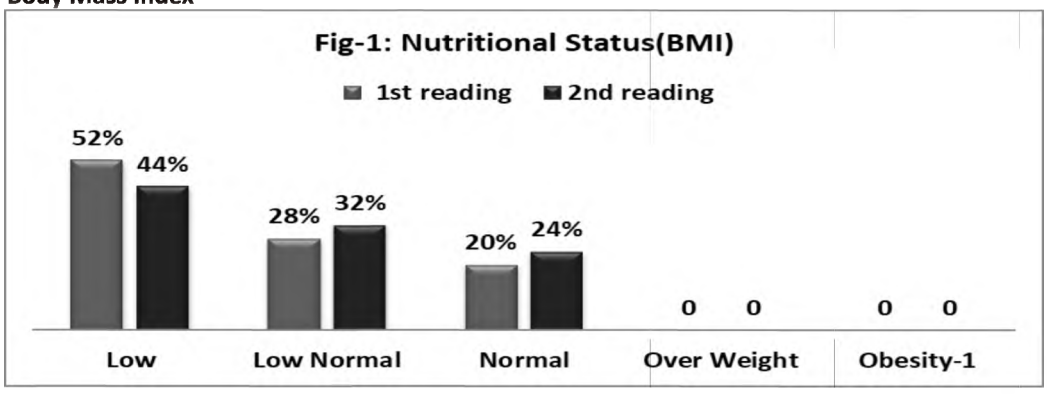
Materials & Methods:

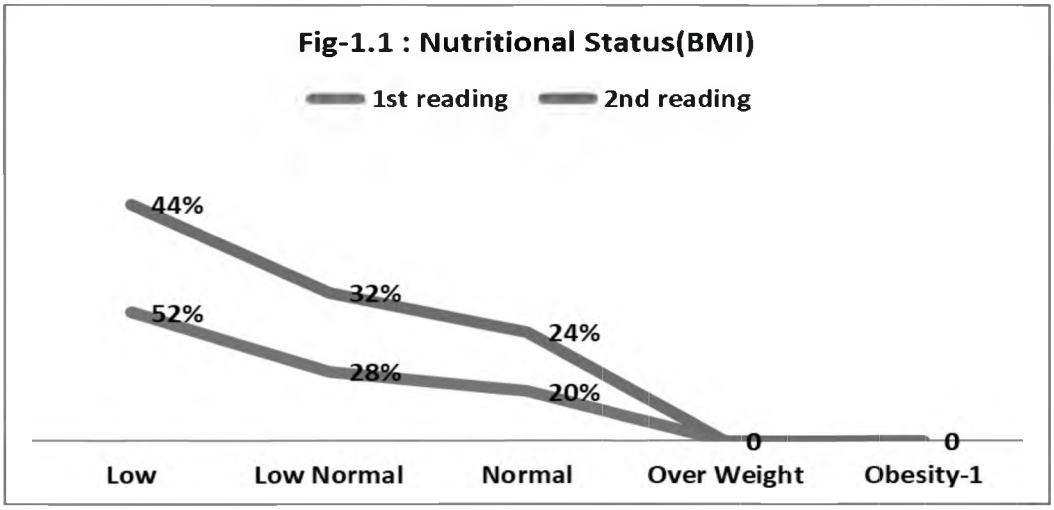
The study was carried out using both Qualitative and Quantitative instruments. A cross sectional random sampling study was designed to collect the data. For this study 600 AGLs are randomly selected from 50 AWCs under the scheme of Adolescent Girls or SABLA. Demographic Profile of the respondents, Anthropometric Parameters, Services of SABLA programme, test of Haemoglobin Level, SABLA Kishori Card, IFA supplementation process and status Observation Questionnaire method as tools were used. The information was collected by a pre-designed & pre-tested questionnaire developed for this purpose taking account of in-depth information to achieve the research objectives. Assessment of Physical Growth (Ghai O.P. 2009),,

Result and Discussion: -

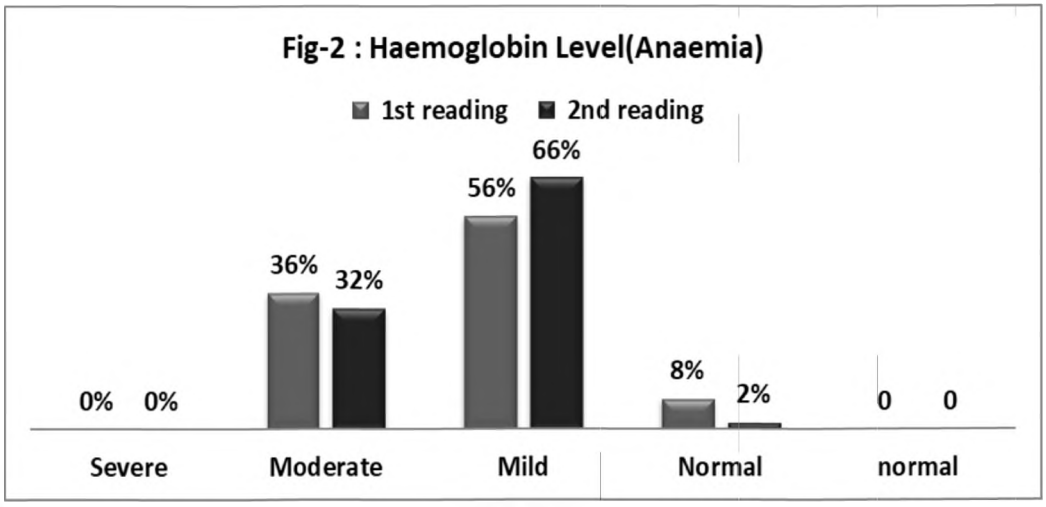
The prime purpose of the present research study, as stated above was to investigate the effect of Supplementary Nutrition and IFA & deworming tablet provided by ICDS under the scheme of SABLA/SAG for Adolescent Girls in Banka District and to assess and compare the Health & Nutritional status of AGLS.9

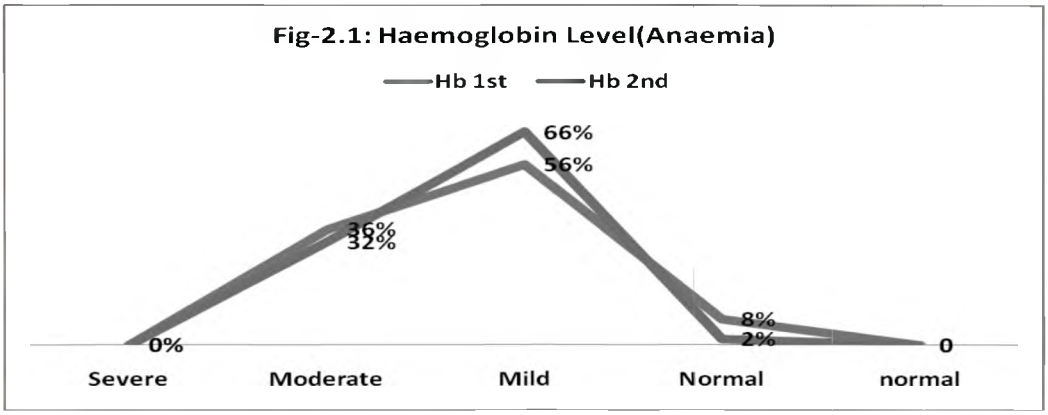
Body Mass Index



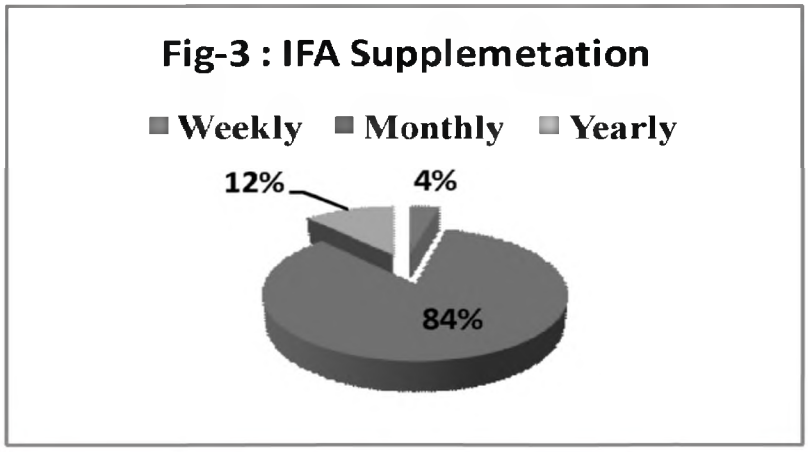


Figures 1 and 1.1 show the Body Mass Index (BMI) of the AGLs. BMI is one of the best indicators to assess the nutritional status of different age groups. According to WHO recommended cut off levels of the Body Mass Index, only 20% girls were normal in 1st reading and after six-month interval 24 % were normal i.e. ≥20.0 -<25.0, whereas 28% AGLs were Low normal i.e. ≥18.5 - <20.0 in first reading, in second reading it was 32%. Most of the AGLs in both groups were below the normal range i.e. up to 52% in the range of <18.5. Neither any AGLs was overweight nor obese i.e. in range of ≥25.0 - <30.0. & above the >30. The data of BMI shows that most of the AGLs (80%) were undernourished, in which 52% were severely undernourished i.e. <18.5. Only 28-32% were normal in range of BMI i.e. ≥20.0 -<25.0. The curve of BMI indicates the growth of BMI in the interval of six month however it is not a standard growth indicator.





Figures 2 and 2.1 shows the haemoglobin level of AGLs. Haemoglobin level in blood is the best indicator to assess the anaemia in AGLs or women. Haemoglobin level of AGLs reflects that only 8% were normal in the first reading of blood samples of AGLs whereas in the second reading the graph of normal were very low i.e. only 2% were normal (≥ 11gm/dl). When the data was analysed it was found that in the range of 7-9 g/d it was 36% moderate in first reading & after six months it was 32%. The range of 9-11g/d indicates that 66% AGLs were mildly anaemic in first observation whereas in second reading only 56% were mildly anaemic. Neither any AGL was found in severe condition according to haemoglobin level. (≤ 7 gm/dl) nor any AGL was found above the 13g/d haemoglobin level. The above data shows that 92% AGLs were anaemic in which 56% were mild and 36% were moderately anaemic and only 8% were normal. The data shows that most of the AGLs were suffering from anaemia which indicates that they were not getting adequate iron rich food or IFA supplementation which is to be provided by the ICDS in SABLA scheme.



Iron Folic Acid Supplementation:

Figure 3 shows the Iron Folic Supplementation of AGLs. IFA supplementation is one of the services of SABLA scheme for fulfilment of IFA requirements and reduction of anaemia in Adolescent girls. Under the scheme of WIFS (weekly Iron Folic Acid Supplementation) is to be provided weekly IFA Tablets for each AGLs. The Figure shows that out of 50 AWCs only 2 AWCs were providing weekly supplementation of IFA and 42 AWCs were providing it monthly whereas 6 AWCs were providing annually or rarely. During the collection of the data the reason for irregular distribution of IFA supplementation was informed by AWWs, the irregular supply or shortage of pills or short date of expiry were the main reasons of irregularity of IFA supplementation resulting in sustainable anaemia in Adolescent Girls. [10,11]

Deworming Tablet Supplementation: The norms of SABLA & WIFS programme of Govt. of India provide deworming tablets as Albendazole tablets in the interval of every six months to all AGLs. But none of the centre was found to have deworming tablets. The AWWs informed that there was no regular supply.[10]

Conclusion: The Study of adolescent beneficiaries of SABLA/SAG Scheme under ICDS of Banka District of Bihar shows that, the nutritional status of the adolescent girls of rural anganwadi centre was quite worrying. This result shows that most of the AGLs were undernourished. The data of BMI shows that most of the AGLs (80%) were undernourished, the curve of BMI indicates the growth of BMI in the interval of six month however it is not a standard growth indicator. The data haemoglobin level shows that 92% AGLs were anaemic in which 56% were mildly anaemic and 36% were moderately anaemic while only 8% were normal. The data shows that most of the AGLs were suffering from anaemia which indicates that they were not getting adequate iron rich food or IFA supplementation which should be provided by the ICDS in SABLA scheme. For better health of adolescent girls, there is a dire need to be aware of the availability of adequate and balanced nutritious foods and to supplement iron tablets regularly. We can improve the nutritional status of adolescent girls by making them aware of personal hygiene and nutrition education and proper supplementation of IFA & Deworming Tablets under the Anaemia Mukt Bharat Abhiyaan scheme.

Key Message: - Anaemia is a key health concern for young girls and boys across the country. But it is something that has a simple, workable solution Blue Iron and Folic Acid (IFA) tablets once a week and deworming tablets every six months. It really is that simple. 'We need to create awareness about how these simple steps can have a huge and long-lasting impact on this generation of girls and boys and on the generations to come.' (Priyanka Chopra, UNICEF Goodwill Ambassador). [12]

REFERENCES

[1]**Adolescent Girls in India Choose a Better**

Future: An Impact Assessment, The Centre for Development and Population Activities, CEDPA 2001.

[2]**UNICEF, Picture in India,** Available from, htttp:/www.inicef.org./india/index/html. Access on February 2012.

[3]**Evaluation of SABLA Scheme:** A Report Submitted to Ministry of Women and Child Development, Government of India, Administrative Staff College of India. September 201

[4]**Govt. of India**, Ministry of women & child development, Child Development, ICDS, Available from, http://www.wcd.nic.in/icds/icds.aspx/accessed in August, 2013.

[5]**National Health Family Survey** (NFHS)4 (2015-16), Nutrition in India, International Institute of Population Science (IIPS) Mumbai, Ministry of Health & Family Welfare, Govt. of India, Available from, **http**:/www.rchiips.org/nfhs/sub report/html, assessed on August 2016.

[6]**Anaemia Mukt Bharat**, Ministry of Health & Family Welfare Govt. of India, www. https://anemiamuktbharat.info/

[7]**Ghai O.P, Paul Vinod**, et al : Normal growth & Its disorder, Essential Pediatrics, 2009,p 1-21.

[8]**Evaluation of SABLA Scheme**: A Report Submitted to Ministry of Women and Child Development, Government of India, Administrative Staff College of India. September 2013.

[9]**Govt. of India**, Ministry of women & child development, Child Development, ICDS, Available from, http://www.wcd.nic.in/icds/icds.aspx/accessed in August, 2013.

[10]**WIFS Programme**, Ministry of Health & Family Welfare, Govt. of India. https://nhm.gov.in/index1. php?lang=1&level=3&sublinkid=1024&lid=388

[11]**Govt. of India**, Ministry of women & child development, Child Development, ICDS, Available from, http://www.wcd.nic.in/icds/icds.aspx/accessed in August, 2013.

[12]**Anaemia Mukt Bharat,** Ministry of Health & Family Welfare Govt. of India, www. https://anemiamuktbharat.info/