

Nutritional status of adolescent girls under SABLA : An assessment of rural Anganwadi centres of Banka district

KUSUM BHARTI, MANOJ KUMAR AND PRAMILA PRASAD

Adolescence may represent a window of opportunity to prepare nutritionally for a healthy adult life. In general, adolescent girls are the worst sufferers of the ravages of various forms of malnutrition because of their increased nutritional needs and low social power. Rajiv Gandhi Kishori Sakshikaran Yojna, SABLA is an important scheme of the Govt. of India for the improvement of health and nutritional status of Adolescent Girls under the platform of ICDS. This study aimed at assessing the health and nutritional status of Adolescent girls of rural areas of Banka District receiving the benefits of the nutritional intervention of SABLA yojna under the ICDS. For this study Anthropometry measurement, 24h dietary recall method including Take Home Ration of SABLA programme, Haemoglobin Level, SABLA Kishori Card Observation and Questionnaire method as tools were used. Out of 300 AGLs from SABLA of 50 Rural AWCs, 79 per cent are underweight whereas 67 per cent stunted. The nutritional status of 85 per cent is undernourished *i.e.* according to the BMI only 15 per cent girls are in normal range. 78 per cent AGLs are anaemic in which 24 per cent moderate and 9 per cent are severe anaemic *i.e.* Hb level <7g/dl, When the dietary availability of AGLs was assessed, we found that only 32 per cent AGLs are getting adequate diet according to the RDA, whereas 62 per cent girls are getting THR according to the norms of SABLA scheme. The General appearance of only 28 per cent AGLs is normal, whereas 68 per cent are thin and 4 per cent sickly. Only 32 per cent AGLs maintain the personal hygiene and sanitation. More than 80 per cent AGLs under SABLA at Banka District are undernourished whereas 85 per cent are anaemic. It may be concluded that this scheme at studied area is not being implemented in a proper way.

Key Words : SABLA, Nutrition, Adolescent Girls, Anaemia, Undernutrition

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INTRODUCTION

Adolescence is an important stage of growth and development in the lifespan. Unique changes that occur in an individual during this period are accompanied by

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progressive achievement of biological maturity. This period is very crucial since these are the formative years in the life of an individual when major physical, psychological and behavioural changes take place. Adolescence may represent a window of opportunity to prepare nutritionally for a healthy adult life. In general, adolescent girls are the worst sufferers of the ravages of various forms of malnutrition because of their increased nutritional needs and low social power.

This age group needs special attention because of the turmoil of adolescence which they face due to the different stages of development that they undergo,

different circumstances that they come across, their different needs and diverse problems. Rural adolescent girls have been considered a low risk group for poor health and nutrition. Despite all these important considerations, adolescent girls did not receive adequate attention in rural areas in our country, and only recently few studies have been carried out in this population group. It is well established that nutritional status is a major determinant of the health and well-being among adolescent and there is no doubt regarding the importance of the study of nutritional status. Nutritional status was evaluated using anthropometric indicators recommended by WHO Expert Committee.

During this period, nutritional problems originating earlier in life can be partially corrected, in addition to addressing the current ones. It is also the period to shape and consolidate healthy eating and life style behaviours, thereby preventing the onset of nutrition related chronic diseases in woman hood and prevalence of malnutrition in future generation. Iron deficiency anaemia is the most wide spread micronutrient deficiency affecting the vulnerable groups including adolescent girls which reduce the capacity to learn and work, resulting in lower productivity and limiting economic and social development. Anaemia during pregnancy leads to high maternal and neonatal mortality and low birth weight etc. Addressing the health needs of adolescent girls will not only lead to a healthier and more productive women force but will also help to break the intergenerational cycle of malnutrition.

Rajiv Gandhi Kishori Sastikaran Yojna, SABLA :

Rajiv Gandhi Kishori Sastikaran Yojna, SABLA is an important scheme of the Govt. of India for the improvement of health and nutritional status of adolescent girls under the platform of ICDS. The objectives of the Scheme are; Enable the AGs for self-development and empowerment, improve their nutrition and health status. Promote awareness about health, hygiene, nutrition, Adolescent Reproductive and Sexual Health (ARSH) and family and child care. Upgrade their home-based skills, life skills and tie up with National Skill, Development Program (NSDP) for vocational skills, Mainstream out of school AGs into formal/non formal education Provide information/guidance about existing public services such as PHC, CHC, Post Office, Bank, Police Station, etc. The Scheme would cover

adolescent girls in the age group of 11-18 years under all ICDS projects in selected 200 districts in all the States/UTs in the country. In order to give appropriate attention, the target group would be sub divided into two categories, viz., 11-15 and 15-18 years and interventions planned accordingly. The Scheme focuses on all out-of-school adolescent girls who would assemble at the Anganwadi Centre as per the time table and frequency decided by the States/UTs. The others, i.e., the school going girls would meet at the AWC atleast twice a month and more frequently during vacations/holidays, where they will receive life skill education, nutrition and health education, awareness about othersocio-legal issues etc. This will give an opportunity for mixed group interaction between in-school and out-of-school girls, motivating the latter to join school.

Services of the scheme:

Each AG will be given Supplementary nutrition (SN) containing 600 calories, 18-20 grams of protein and micronutrients 1, per day for 300 days in a year. The out of school AGs in the age group of 11-15 years attending AWCs and all girls in the age group of 15-18 years will be provided SN in the form of Take Home Ration (THR). However, if hot cooked meal is provided to them, strict quality standards have to be put in place. The THR as provided to Pregnant and Lactating (P & L) mothers may be provided for AGs also, since the financial and calorific norms of SN or both are same.

Objectives:

This study aimed at assessing the health and nutritional status of Adolescent girls of rural areas of Banka District receiving the benefits of the nutritional intervention of SABLA yojna under the ICDS. To assess the health and nutritional status of AGLs under the scheme of SABLA is the main objective.

METHODOLOGY

The study was conducted in Rural ICDS project of Banka District of Bihar. The period of data collection was from July, 2014 to December 2014, i.e. approximately six months. For this study, 300 AGLs from 50 AWCs were selected, who were enrolled under the scheme of SABLA of ICDS Project of Banka District. The data was collected with the help of Pre designed Questionnaire, Anthropometry measurement, 24h dietary recall method

including Take Home Ration of SABLA programme, Haemoglobin Level, SABLA Kishori Card and Observation method. The collected data was classified, tabulated and statistically processed with the help of percentage and chi-square test.

Nutritional status :

Fig. 1 Nutritional status shows the fact of the adolescents girls of rural areas. According to the WHO nutritional indicator, weight for their age 79 per cent girls are under weight in which 73 per cent are moderately under weight and 6 per cent are severely *i.e.* very low weight, only 21 per cent are normal. The indicators of Height for their age shows 67 per cent girls are stunted in which 56 per cent are moderately and 11 per cent are severely stunted *i.e.* the girls have not achieved their standard height. When the weight for their height analysed, it shows that only 31 per cent AGLs are normal *i.e.* their weight for height are normal whereas 63 per cent are moderately wasted and 6 per cent are severe. The Fig. shows that out of 300 Adolescents girls under the scheme more than 70 per cent are under nourished which is the major threat to their physical and mental development.

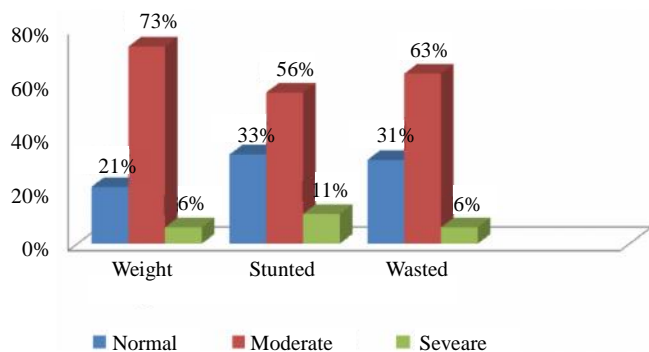


Fig. 1 : Nutritional status of the adolescents girls of rural areas

Body mass index (BMI) :

According to WHO recommended cut off levels of the Body Mass Index only 15 per cent girls are normal *i.e.* ≥ 20.0 - < 25.0 , whereas 61 per cent are low normal *i.e.* ≥ 18.5 - < 20.0 . 22 per cent AGLs are below the normal range *i.e.* < 18.5 and only 2 per cent are overweight *i.e.* in range of ≥ 25.0 - < 30.0 . No one is obese *i.e.* above the > 30 . The data of BMI shows that more the AGLs are undernourished *i.e.* 83 per cent in which 22 per cent are severely undernourished *i.e.* < 18.5 . Only 15 per cent are

normal in range of BMI *i.e.* ≥ 20.0 - < 25.0 (Fig. 2).

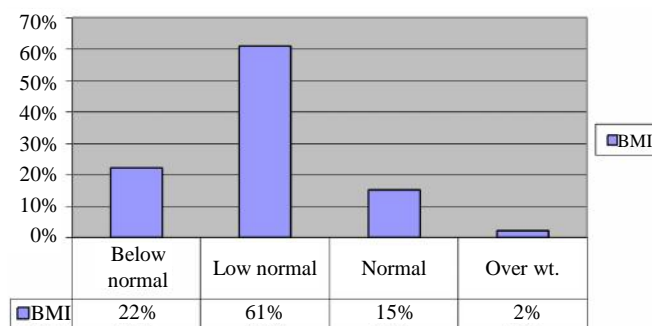


Fig. 2 : Levels of the body mass index

Haemoglobin level :

Haemoglobin level of AGLs reflects that only 22 per cent are normal *i.e.* ≥ 11 gm/dl whereas 67 per cent are moderate *i.e.* 8-11 g/dl and 11 per cent are severe *i.e.* ≤ 7 g/dl. The above data shows 78 per cent AGLs are anaemic in which 11 per cent are severely anaemic and only 22 per cent are normal (Fig. 3).

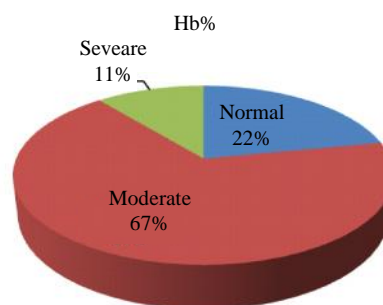


Fig. 3 : Haemoglobin level of AGLs reflects

Dietary intake :

Fig. 4 dietary intake of AGLs reflects 32 per cent are getting adequate diet compared to RDA /day in K/ cal, whereas 68 per cent are not getting adequate diet.

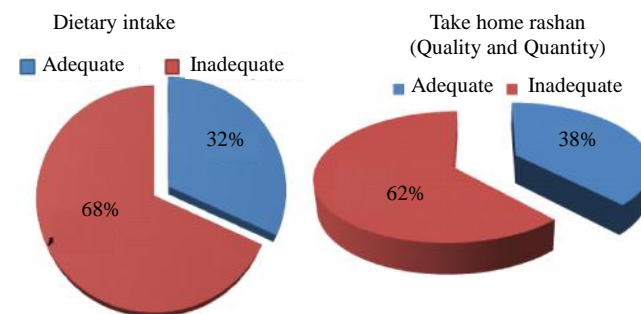


Fig. 4 : Dietary intake of AGLs

When Take Home Ration was analysed which is given by the ICDS under the SABL scheme in the form of Rice, Pulse and other supplementary nutrition like Soybean, Badam etc onetime in a month for enrolled Adolescent girls, we found 62 per cent AGLs getting Adequate Quality and Quantity of THR according to the norms of the scheme whereas 38 per cent not getting the Quality and Quantity of the THR.

General Appearance of AGLs shows More AGLs are found thin *i.e.* 68 per cent whereas 4 per cent sickly and 28 and are normal (Fig. 5).

The Adolescents girls of rural areas do not maintain the Personal hygiene and sanitation. (Fig. 6) The data shows that 68 and girls are aware of hygiene and 32 and are not *i.e.* 32 and school age girls do not maintain the personal hygiene and sanitation. Similar work on the related topics was also done by Neog and Baroova

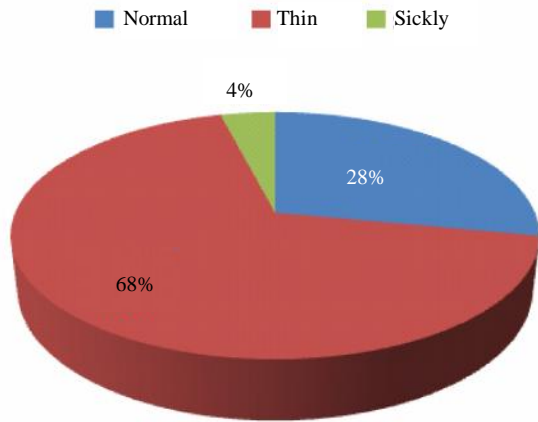


Fig. 5 : General appearance

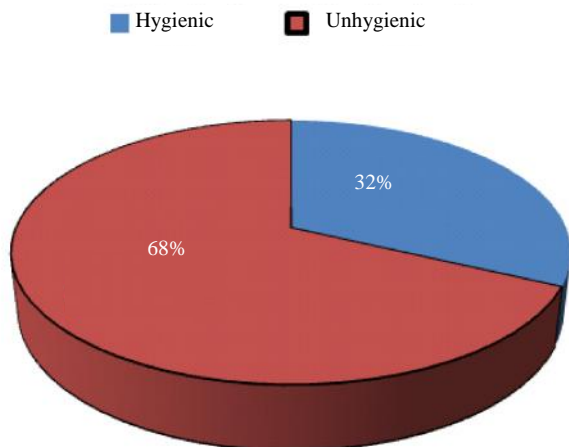


Fig. 6 : Personal hygiene and sanitation

(2010); Dobhal and Raghuvanshi (2014) and Gamit (2013).

Conclusion:

The present study concerning Nutritional status of AGLs of SABL Scheme shows that most of the girls are undernourished. Out of 300 AGLs 79 per cent are underweight whereas 67 per cent are stunted. According to the BMI 85 per cent girls are undernourished in which 22 per cent are below the normal range. The haemoglobin levels of girls show that 78 per cent girls are anaemic in which 11 per cent girls are severely anaemic. 32 per cent girls are getting adequate diet whereas 62 per cent girls are getting quality and quantity of THR. 68 per cent AGLs look thin and 4 per cent sickly. 32 per cent girls do not maintain the personal hygiene and sanitation. According to the result of the study, it may be concluded that more than 70 per cent girls are undernourished and anaemic under the SABL scheme. The results show that the intervention of the scheme has not achieved its own objectives *i.e.* improvement of the health and nutritional status of AGLs has been not observed.

LITERATURE CITED

Agrawal Udipi (2011). *A Text Book of Human Nutrition*, Jypee Publicatiuon, New Delhi, pp. 66-88.
 Annual report of Ministry of Women and Child Development Govt. of India, 2014-15, pp. 8-22.

- A position paper on Nutrition Security for India Issues and way Forward, Indian National Science Academy, December 2009.
- Dobhal, Neetu and Raghuvanshi, Rita Singh (2014).** Nutritional status and body composition of adolescent girls of district Udham Singh Nagar. *Asian J. Home Sci.*, **9** (1) : 193-198.
- Gamit, Nagin H. (2013).** Nutritional status and IQ level of tribal adolescent girls of Vankal Mangrol taluka of Surat district. *Food Sci. Res. J.*, **4**(2): 133-136.
- Kumar, S. and Prasad, P. (2014).** Nutritional Intervention of MDM Programme of School going Children ,Scientific Proceeding of IDA.
- Krishnaswamy, Kamla and Bhaskaran, P. (2011).** Dietary Guidelines for Indians, National Institute of Nutrition, Hyderabad, A.P. (INDIA).
- Laxmaiah, A. and Mallikharjuna, K. (2014).** Assessment of Nutritional Status of Community, Workshop Manual, NSICON-2014.
- Malti, Soyamjit and Chararjee, Koushik (2011).** Assessment of nutritional status of rural school going adolescent girls, National Journal of Community Medicine, Vol. 1.
- Neog, Nilima and Baroova, Basanti (2010).** Nutritional status of adolescent girls irrespective of socio-economic and ethnic background of Jorhat district, Assam. *Food Sci. Res. J.*, **1** (2) : 130-133.
- Park, K. Park (2006).** *Text Book of Preventive and Social Medicine*, 20th Ed., BanarsidasBhannot Publication, Jabalpur.
- Srilaxmi, B. (2008).** *Dietetics*, New Age International Publishers, New Delhi, INDIA.
- The Adolescent Anaemia control Programme, A briefing Paper Series, UNICEF- New Delhi-2011

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