

# Proclivity of School Going Girls towards Nutrition Education and Its Impact on their Food Habits

A. Joglekar<sup>1</sup>, Lata Chourasiya<sup>2</sup>

Dept. of Home Science, Degree Girls College, Raipur-Chhattisgarh

**Abstract:** *Objective:* assessment of nutritional status and dietary pattern of school going girls of class 09<sup>th</sup>-12<sup>th</sup> and study the impact of nutrition education program on their nutritional knowledge and practices. *Study design:* baseline data school going girls was collected from Dept of Education government of Chhattisgarh. A study of Inclination towards nutritional education program among girls has been carried with help of questionnaire, followed up by nutritional education programme with usage of booklet, Power Point presentation, Brochure and its impact was studied after three months. *Environment:* 100 school going girls of class 09 to 12<sup>th</sup> from government schools of four blocks namely Dharsiva, Abhanpur, Tilda & Arang were randomly selected for study. *Statistical analysis:* T-test. *Results:* Though the pattern of growth in adolescent girls was similar to that of NCHS standards, their heights and weights at any given age were far below the standards and deficit increased with age. Iron deficiency anaemia was found to be among few girls. After nutrition education significant proportion of girls could correctly identify the foods rich in various important nutrients. *Conclusions:* The IEC intervention resulted in improvement of nutritional knowledge of school going girls as well as behavioural pattern as envisaged by better diet methods and increase in the consumption of nutrient rich foods.

## 1. Introduction

One of the keys to effective nutrition education and counselling of teenagers is a good understanding of normal adolescent psychosocial development. Adolescents are striving to achieve independence yet they are highly influenced by the beliefs and behaviours of peers. Studies have documented the high prevalence of unhealthy dieting behaviours among adolescent girls. These behaviours may have a negative impact on nutritional intake and psychological well-being. Of even greater concern are the increasing rates of unhealthy dieting behaviours and body dissatisfaction among girls of elementary school age. It has been suggested that children and adolescents can learn at school about the importance of nutrition education and healthy dietary pattern for overall body growth. And it is established that school/academic institutions are a good place to undertake such activities as these institutions are well established and trusted; as such, they may be better able to reach the target population and attract participants.

## 2. Materials & Methods

The study has been conducted to understand the tendencies of school going girls (09<sup>th</sup>-12<sup>th</sup> class) to participate in the nutritional knowledge education program and also to assess impact of nutritional counselling on their food habits. Information about the inclination towards the nutrition education program & dietary pattern was collected with help of pre-structured questionnaire. Baseline data school going girls was collected from Dept. of Education government of Chhattisgarh. The nutrition education was imparted with usage of booklet, Power Point presentation, Brochure and its impact was studied after three months. 100 school going girls of class 09 to 12<sup>th</sup> from government schools of four blocks namely Dharsiva, Abhanpur, Tilda & Arang were randomly selected for study

Content of the Nutrition Education program:

- 1) Diet should consist of nutritious foods & balanced diet should be taken to prevent under nutrition or obesity.

- 2) Breakfast is the mandatory & no meal should be avoided
- 3) It is recommended to consume food that provide good calorie & protein to support the growth
- 4) It is recommended that girls should ensure adequate intake of iron ( as they lose 0.5mg/day by way of menstruation and if this lost iron is not replaced, it pre disposes to iron deficiency anaemia)
- 5) Calcium rich foods such as fruits & vegetables should be included in daily diet to help bone growth during adolescence and they also provide required vitamins, minerals and fibre
- 6) Home based diets are best for children's growth
- 7) Avoid foods which uses un permitted colours or flavours
- 8) Avoid empty calorie foods such as carbonated beverage

## 3. Results & Discussion

From the height and weight taken, BMI (Body Mass Index) was measured According to Visweswara Rao (1999), BMI is one of the best set of indices found useful for nutritional status of adolescents.

Table I: BMI of the subjects

Sr. No.	BMI	Grade/Diagnose	Number	Percentage
1	<18.5	Undernourished	35	35%
2	18.5-25	Normal	36	36%
3	25-30	Overweight	19	19%
4	>30	Obese	10	10%
5	Total			100%

It is evident from above table that 35% of population belongs to undernourished category and 19 % are 29% of population are obese & overweight, only 36% of girls were normal, that clearly indicates the requirement of proper nutrition education programme and continuous monitoring of food habits for improved results.

Most of the girls under study were non vegetarians (80%), 11% egg-tariaians and 9% are vegetarians. No girls had the habit of regular outside food consumption. Mean of nutrient intakes shows that there is a deficit intake in case of vitamin

C and Iron by -17 and -10.47 respectively. Most of the subjects had the habit of skipping meals especially breakfast (91%). Anaemia was prevalent in a small number of subjects; the requirement for iron is higher in adolescent girls to combat the menstrual loss. So the importance of the inclusion of locally available iron rich foods like green leafy vegetables was emphasized during lectures.

Dietary patterns greatly varies with income bracket of households, researches has attempted to generate information about the income background of population, but it was not available readily, as girls are normally not aware of total household's income. Therefore, occupation status was captured and results are categorized in below table:

**Table 2:** Distribution of sample as per Father's occupation

Sr. No.	Father	Working	Percentage
1	Skilled	17	17%
2	Semiskilled	47	47%
3	Unskilled	23	23%
4	Not working	13	13%

**Table 3:** Distribution of Samples as per Mother's occupation

Sr. No.	Mother	Working	Percentage
1	Skilled	13	13%
2	Semiskilled	19	19%
3	Unskilled	51	51%
4	Not working	17	17%

Analysis of above two table clearly shows that 74% of parents were working in the unskilled areas, given the fact that, therefore it is a very mandatory to impart nutrition education training.

Girls have been given training on the healthy eating practices and knowledge about balanced diet with use of different techniques. They have been given the questions paper to assess their knowledge of the training program. Results of nutrition of education program were tabulated as below:

**Table –IV** Marks obtained by the girls

Sr.No.	Marks Obtained	Before Nutrition Education Program		After Nutrition Program	
		Number of Subjects	%	Number of Subjects	%
1	0-5	21	21%	-	-
2	5-10	37	37%	4	4%
3	10-15	23	23%	63	63%
4	15-20	19	19%	33	33%

The table clearly shows impact of nutrition education was very effective to increase their nutritional awareness and to make necessary changes in food habits of school going girls. For the questionnaire distributed, 21 per cent of the girls had only 0-5 marks before nutrition education, and after the classes no one belonged to this category. Only twenty three got 10-15 marks and 19% had 15-20 marks before nutrition education, which is replaced by 63 and 33 per cent respectively.

T-test has been used to measure the statistical significance in the increase in nutritional awareness program. Since the

calculated t-value is (13.60) greater than the table value (7.89) which is significant at 0.01 level, there exist significant difference between the groups which means the effect of nutrition education on the adolescent girls. Hence, the nutrition education was effective in elevating the nutritional knowledge of the subjects.

#### 4. Conclusion

It has been studied that the nutrition education programme if reached the real beneficiaries as most of the Indian women and girl's diet is lacking in many nutrients and having low haemoglobin levels then it has the greater impact on overall society.(Greger and Divilabiss, 1979and Jondhale et al., 1999).

So the nutrition education was given to adolescent girls about balanced diet, calcium and iron rich foods, breakfast and exercise. Diet in adolescence is very crucial because it influences the future nutritional status. So it is important to conduct awareness programmes on food choices and nutritional requirements on a regular basis especially among low income groups

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