



Dietary Habits of Adolescent Girls Residing in Kasturba Gandhi Balika Vidyalaya of Chandauli District, Uttar Pradesh

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Abstract : Nutritious diet is essential for all stage of life. It determines the growth and development and also prevent from some diseases. Adolescent is a significant period, Nutrient intake during this period is most important because exceptionally rapid rate of growth and development. So, the health and nutrition of adolescent can affect by their dietary habits. In the present study has been assess the dietary habits of the students of residential school of Chandauli district because school meal provides an opportunity to enhance dietary intake and nutritional status of adolescent girls in Kasturba Gandhi Balika Vidyalaya (KGBV) residential school. this is a cross-sectional study with 277 sample size of nine KGBV, age group 11-17 years. It is observed that 31.8% and 22.6% of respondents skipping some time dinner and breakfast respectively. Only 2.1% were avoiding to take lunch in a day some time. The present study has been concluded that 70.4% of girls were in habits skip their food item for some time and 98.0% & 97.0% of girls were consuming iron and calcium less than respective RDA which certainly affect the nutritional status of the girls.

Key words : Dietary habits, skip meal, nutritional status, adolescence.

Introduction:- Present study was carried out to study the dietary habits and food consumption pattern of adolescent girls residing in Kasturba Gandhi Balika Vidyalaya (KGBV). UNICEF works across India to establish and implement policies and nutritional status of children both in and out of school. School meal offer an opportunity to enhance dietary intake and nutritional status of adolescent girls. WHO defines 'adolescent as person in the age group of 10 to 19 years. Around 1.2 billion people, one in six of the world's population, are adolescent age. India is home to 253 million adolescent and almost half of whom are girls (120 million) and we stand with them at a crossroad between losing out on the potential of a generation or nurturing them to transform society. Adolescence is a nutritionally vulnerable time when rapid physical growth and development increase nutrients demand (UNICEF). According to various studies revealed that most of the adolescent girls suffer from under nutrition due to lack of awareness and knowledge about their nutritional needs and requirement, specially girls in rural areas are inadequate both in terms of quality and quantity.

Nutrients that we obtain through food have vital effects on physical growth and development, maintenance of normal body function, physical activities and health. Dietary habits are defined as ‘the habitual decisions of individuals or a group of people regarding what food they eat’.

Materials and methods

Study area –

The present study was conducted of Kasturba Gandhi Balika Vidyalaya of Chandauli district, Uttar Pradesh.

Study design and sample size- cross-sectional study with purposive random sampling was used to collect the data 277 girls for interviewed.

Assessment of Dietary habit

In this study assessment of dietary habit was done through self-structured questionnaire. The respondents have been asked about their dietary habit to assess the prevalence of vegetarian and non- vegetarian between total study subject.

Assessment of skipping meals

Meal skipping is the omission of one or more of the traditional main meals (breakfast, lunch and dinner) throughout a day. Subjects have been asked questions related to skipping meals and which meal is skipped the most.

Statistical analysis

Data were entered in an excel sheet and Mean, SD and percentage was calculated from SPSS version 16.0 by using suitable tools and techniques.

Results and discussion :

Table No.1
Distribution of Food habits of Respondents According to their religion, caste, family type -

Religion	Food Habits					
	Vegetarian		Non-Vegetarian		Total	
	No.	%	No.	%	No.	%
Hindu	54	22.4	187	77.6	241	100.0
Muslim	2	5.6	34	99.4	36	100.0
Total	56	20.2	221	79.8	277	100.0

$\chi^2 = 5.52, df = 1, P < 0.05$

Caste						
GEN	07	70.0	3	30.0	10	100.0
OBC	22	19.6	90	80.4	112	100.0
SC/ST	27	17.4	128	82.6	155	100.0

$\chi^2 = 16.14, df = 2, P < 0.001$

Family Type						
Joint	23	20.0	92	80.0	115	100.0
Nuclear	33	20.4	129	79.6	162	100.0

$\chi^2 = 0.01, df = 1, P > 0.05$

The above table gives the details of respondent food habits on the basis of their religion, caste and family type which show that majority 94.4% of muslim respondents and 77.6 % of Hindu related respondents

were non vegetarian and this different in proportion is found to be statistically significance out of total OBC and SC/ST respondent majority 80.4 % and 82.6 % were in habit of non-vegetarian where as 30.0% of general cast respondent were non-vegetarian and this different is statistically highly significance and family type wise distribution shows that 80.0% and little less 79.6% to joint and nuclear type of family respectively were non-vegetarian but this difference is not significant.

Table no. 2
Distribution of respondents According to on the basis of meal skipping status

Skipping Status	No.	%
Yes (Always	13	4.7
Sometimes	195	70.4
Never	69	24.9
total	277	100.0

The above table indicates that maximum 70.4 % of respondent were skipping their meals some time which about one fourth of the respondent reported never skip their meals. only 4.7 respondent reported to skip always for any time of the meal.

Table No. 3
Distribution between skipping status and type of skipped food

Sr. No.	Type of meal	Skipping Status					
		Yes (Always)		Some times		Total	
		No.	%	No.	%	No.	%
1.	Breakfast	-	-	44	22.6	44	21.2
2.	Lunch	-	-	4	2.1	4	1.9
3.	Evening tea	13	100.0	85	43.5	98	47.1
4.	Dinner	-	-	62	31.8	62	29.8
	Total	13	100.0	195	100.0	208	100.0

^ Distribution between skipping status and time of skipped meal of the respondent is analyzed in the above table. which sketches the fact that those respondents who were skipping their food some time out of which maximum 43.5% were skipping their evening tea followed by 31.8% dinner and 22.6% of respondent were skipping some time their breakfast only 2.1% were avoiding to take their lunch in a day some time. Shukla et al. (2017) reported that four-fifth of the cases (near about 80%) of girls the consumption of deep-fried snacks/ namkeens/ potato chips. About one-fourth of the girls stated that they never take breakfast before coming to school (22.6%) and daily intake of breakfast was found in 16.9% of the study subject while 43.0% of the girls stated about frequent missing of meals. The study finding highlight the need to bring out behavioural change in eating habits among school going adolescent girls through appropriate and timely intervention so as to prevent them from diet related health problem.

Table no. 4

Religion wise distribution of Respondents According to like the meal Provided by the school Administration

Sr. No.	Like of Food Materials	Religion					
		Hindu		Muslim		Total	
		No.	%	No.	%	No.	%
1.	All type of Food	49	20.3	6	16.7	55	19.9
2.	Dislike Some food	192	79.7	30	83.3	222	80.1
	Total	241	100.0	36	100.0	277	100.0

$$X^2 = 0.27, df = 1, P > 0.05$$

The above table indicates that majority 80.1% of respondents reported to dislike some food items while remaining 19.9% were reported to take all type of food items. no significant association exist between religion and like of different type of food materials in the present study.

Table no. 5

Distribution of Respondents According to dislike of different food substances given by school Administration

Sr. No.	Food Materials	No.	%
1.	Dalia	80	36.0
2.	Rajma	45	20.3
3.	Mix dal	23	10.4
4.	Poha	16	7.2
5.	Chana masala	04	1.7
6.	Kari	03	1.4
7.	Khichadi	16	7.2
8.	Palak	07	3.2
9.	Dalia & Rajma	15	6.7
10.	Dalia & Mix dal	07	3.2
11.	Rajma & Mix dal	06	2.7
	Total	222	100.0

The further information is also collected from those respondent who disliked the different type of food materials out of those respondent who reported to dislike some food items out of which maximum 36.0% disliked to Dalia, 20.3% to Rajma, 10.4% to Mixdal while 7.2% each 6.7% and 3.2% to poha, khichadi & Rajma both and Palak respectively.

Table no. 6

Distribution of Respondents According to their food Consumption Pattern

Sr. No.	Food Items	Frequency of food Consumption (weekly)				
		Daily	5-6 Times in a week	3-4 Time in a week	1-2 times in a	Some time

					week			
		No.	%	No.	%	No.	%	
1.	Rice	277 (100.0)	-	-	-	-	-	-
2.	Wheat	277 (100.0)						
3.	Pulse	277 (100.0)						
4.	GLV	174 (62.8)	08 (2.9)	83 (30.0)	5 (1.8)	7 (2.5)		
5.	Other Veg	264 (95.3)	02 (0.7)	11 (4.0)	-	-		
6.	Roots	277 (100.0)	-	-	-	-	-	-
7.	Fruits	242 (87.4)	07 (2.5)	23 (8.3)	02 (0.7)	03 (1.1)		
8.	Milk & Milk Products	277 (100.0)	-	-	-	-	-	-
9.	Fat & Oils	277 (100.0)	-					
10.	Sugar & Gaggery	277 (100.0)	-					

It is depicted from the above table that cent percent of respondents were in practice to consume rice, wheat, pulse, roots milk & milk products, fat and oil, sugar and jaggary daily while 87.4% were taking fruits, 62.8% of respondent were taking green leafy vegetable (GLV) daily in their meal those respondents who were taking GLV & fruits in any frequency in a week or some time they are noted to be in 37.2% and 12.6% respectively. Kotecha et al. (2013) reported that nearly 80% of adolescent had consumed regular food, like dal, rice, chapati and vegetable including green leafy vegetable and near about 50% of them had consumed chocolates and about one-third consumed fast food. Kansagara et al. (2018) concluded that the majority of the adolescent had regular enough number of meals and snacks, but intake of nutritious food such as milk, protein rich food, green leafy vegetable and fruits was not enough according to ICMR standards.

Table no 7

Distribution of Respondents on the basis of the Status of Nutrient Adequacy Ratio (NAR)

NUTRIENTS	≤ 50		50.1-75.0		75.1-99.9		≥ 100		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Calorie	01	0.4	81	29.2	150	54.2	45	16.2	277	100.0
Protein	-	-	42	15.2	151	54.5	84	30.3	277	100.0
Fat	11	4.0	107	38.6	117	42.2	42	15.2	277	100.0
Carbohydrate	01	0.4	19	6.9	120	43.2	137	49.5	277	100.0
Calcium	102	36.8	151	54.5	17	6.2	7	2.5	277	100.0
Phosphorous	-	-	12	4.3	64	23.1	201	72.6	277	100.0
Iron	131	47.3	136	49.1	04	1.4	6	2.2	277	100.0
Vitamin C	59	21.3	55	19.9	38	13.7	125	45.1	277	100.0

The above table throws light upon the fact that majority about 98.0% and 97.0% of school girl children were taking iron and calcium less than of RDA respectively. Similarly, minimum about 27.0%, 50.0%, 55.0% and 70.0% of students were consuming phosphorus, carbohydrate, vitamin C and protein less than respectively RDA. It is also seen that 16.2% and 15.2% of students were taking calories and fat in more than RDA in the present study area.

Conclusion :

The present study was conducted with the objective of to assess the dietary habits of student of residential school of Chandauli district which is observed that 70.4% of girls were in habit to skip their food items for some times which certainly affect the nutritional status of girls and also may cause of vitamin and other nutrients deficiency even through proper food items have been provided by the school administration according to the menu of the government. It is also observed that cent percent of girls were consuming rice, wheat, pulse, milk and milk product, fat and oils, sugar and jaggary while only 62.8% and 87.4% of girls were in habit to take Green leafy vegetable and fruits daily in their diet because dislike some fruits and vegetable provided by the Vidyalaya administration. This study showed that about 98.0% and 97.0% of girls were consuming iron and calcium less than respective RDA because of dislike of GLV, rajma, milk and other type of pulses and 73.0%, 50.0%, 45.1% and 30.3% of girls were taking phosphorus, carbohydrate, vitamin C and protein more than RDA respectively.

Abbreviations:

GLV	green leafy vegetable
ICMR	Indian Council of Medical Research
KGBV	Kasturba Gandhi Balika Vidyalaya
NAR	nutrients adequacy ratio
RDA	recommended dietary allowances
UNICEF	united nations children's fund
WHO	world health organization

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References

1. Mukherjee R, Chaturvedi S. A study of the dietary habits of school children in pune city, Maharashtra, India. International Journal of community medicine and public health. 2017; 4: 593-7
2. Kotecha PV, Patel SV, Baxi RK, Mazumdar VS, shobha M, Mehta KG, Mansi D, Ekta M. Dietary Pattern of School going adolescent in urban Baroda, India. Journal of health population and Nutrition. 2013; 31 (4): 490-6
3. Shukla NK, Shukla M, Ahmad S, Shukla RA. preliminary study on eating habits among school going adolescent Girls in Barabanki District Uttar Pradesh. Scholars Journal of Applied medical sciences (SJAMS). 2017; 5 (1c) : 184-187

4. Das K, Salam S N, Adhikari S. Kasturba Gandhi Balika Vidhyalaya (KGBV) Scheme as a facilitation to Academic motivation of the female learners. International journal of innovative research in science engineering and Technology. 2013; 2 (12) : 7179-83
5. Yadav VS, Mehta D. Contribution of Kasturba Gandhi Balika Vidhyalayas in education of deprived Girls of Mirzapur District shaikshik parisamvad (An International Journal of education (SPIJE) 2017; 7 (1) : 51-56
6. Kumar K A. Ramakrishnan S k. hemalatha N. Nutritinal Status Eating habit and dietary health perceptions among school going adolescents in mumbai, India. International Journals of multidisciplinary research Academy. 2013 ; 3 (7) : 205-221 (google Scholar).
7. Felicity J. Pendergast, Katherine M. Living Stone, Anthony Worsley and Sarah A Mchaughton. Correlates of meals skipping in young adults : a Systematic review. Int J Behav Nutr. Phys Act. 2016; 13 : 125
8. [https : // www. unicef. org / rosa / what – we do / nutrition / adolescent and womens nutrition](https://www.unicef.org/rosa/what-we-do/nutrition/adolescent-and-womens-nutrition)
9. [https : www. who int / health topics / adolescent health.](https://www.who.int/health-topics/adolescent-health)