

A comparative study on eating behaviour of public school and Government school children of Lucknow city

■ Atiqua Sultana* and Savita Ahluwalia¹

Department of Home Science, University of Lucknow, LUCKNOW (U.P.) INDIA

¹Department of Home Science, Mahila P.G. College, LUCKNOW (U.P.) INDIA

(Email: atiqua.lko@gmail.com)

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*Author for correspondence

ABSTRACT

School health has been acknowledged as important since the beginning of 20th century. Girls are the future mother and good nutrition is important component of healthy life. During school age years children begin to establish habits for eating and exercise that stick with them for their entire life. If children establish healthy habits, their risk for developing many chronic diseases will be greatly decreases. On the other hand poor eating habits and physical inactive children set the stage for health problems in adulthood. In today's life eating behaviour has change. Junk food has become a trend for school children. TV plays a major role. It gives information regarding the fast food products. Children attracted easily when children saw these advertisements it gives wrong impression on their minds and they start giving a lot of importance to materialistic joys. Junk food, such as pizzas, burgers and soft drinks are heavily promoted during children's TV viewing time. These develop a craving for fatty, sugary and fast food in children, there by affecting their health adversely. The objective of the paper was to assess the eating behavior of public school and government school girls' children. 300 children was randomly selected from public and government school girl's children between the age or 10-12 years. Both school children were found highly influenced by the products shown of TV. Deficiency of the Good quality of protein was found in government school children. The higher intake of fats was found in public school children. 71 per cent of extra fats in 10 years, 25.71 per cent in 11 years and 42.8 per cent in 12 years children was found extra in their diet.

INTRODUCTION

Children are an important segment of our population. Children are the wealth of any nation. Girls are the future mother. The nature of physical growth and development of children depends primarily upon the genetic endowments, nutritional status, and psychosocial attitude and surroundings physical environments conditions. Good nutrition is an indispensable component of healthy life. It

is a determinant of health, growth of mind and body. It plays a vital role in the physical, mental and emotional development.

School age is a dynamic period of growth and children as children undergo physical, mental, emotional and social changes. During this school age years, children begin to establish habits for eating and exercise that stick with them for their entire lives. If children establish healthy habits, their risk for developing many chronic diseases

will be greatly decreased. On the other hand, poor eating habits and physical inactive children set the stage for health problems in adulthood.

Overweight is the fifth most serious risk factor for both developed countries and low mortality developing countries (WHR report, 2002). Adequate amount of nutrients in the form of daily diet is essential for the maintenance of health and good nutrition. Thus good food and nutrient intake are closely related to eating behaviour and health of an individual. The low intake of protective foods may result in nutritional disorders.

Good nutritious diet or balance diet is basic need of every child for their growth and development. 10-12 years of age are an age when the rate of physical growth actually increases. Thus sudden growth spurt is associated with hormonal, cognitive and emotional changes that make an especially vulnerable period of life. First, there is a greater demand for calories and nutrients due to the dramatic increase in physical growth and development over a relatively short period of time. Second, this time life changing lifestyle and food habit changes that affect both nutrient needs and intake. Poor nutrition during any of these stages can have lasting consequences on cognitive development, resulting in decreases learning ability. Poor concentration, and impaired school performance.

In today's life eating junk food has become a trend. The children hate homemade healthy food. Junk food is injurious to health. Eating excess Burger and pizza, chocolates and candy, noodles etc. increases cholesterol in human body. The fat in human body increases. The increases fat is dangerous for heart. Drinking excess soft drink adds dangerous toxins in human body. It affects the bone, skin and kidney. Fast food is an important part of today's dietary menu and children are more affected by them. Some marketing strategies are specially to convince children. fast food is very harmful for their health because fast food included high sugar, saturated fat, salt and high calories content which can lead early development of obesity and cardiovascular disease in children. It is very important to educate the parents about nutritional labeling, promotion of healthy eating habit and education about junk foods (Kaushik *et al.*, 2011).

Healthy nutritious foods have been replaced by the new food mantra- Junk Food. Junk food comprises of anything that is quick, tasty, convenient and fashionable. It seems to have engulfed every age, every race and the

newest entrants are children. Wafers, colas, pizzas and burgers are suddenly the most important thing. The commonest scenario is a child who returns from school and plunks himself in front of the television, faithfully accompanied by a bowl of wafers and a cane of cola. Children suddenly seem to have stepped into a world of fast foods and vending machines, totally unaware of the havoc they are creating for themselves. A research has been demonstrated that children's eating patterns are strongly influenced by characteristics of both the physical and social environment. With regard to the physical environment, children are more likely to eat foods that are available and easily accessible, and they tend to eat greater quantities when larger portions are provided. Additionally characteristics of the social environment, including various socio-economic and socio-cultural factors such as parents' education, time constraints, and ethnicity influence the types of foods children eat. Mealtime structure including social and physical characteristic whether families eat together, TV viewing during meals, and the source of foods (e.g., restaurants, schools), parents also play a direct role in children's eating patterns through behaviour, attitudes, and feeding style (Patrick and Theresa, 2004).

The main objective of the study was (1) to assess the eating behaviour of private and government school girls children of age between 10-12 years, (2) to compare the eating behavior between private and government school children, (3) to assess the nutritional status of both school children and compared with RDA.

MATERIAL AND METHODS

To accomplish the objectives 300 school going girl's children were selected. 150 girls were chosen from two schools of Lucknow city from the age of 10-12 years. 150 from public school and 150 from government school children was taken. Purposive random sampling was used to collect the data. A self designed and pretested eating behavior questionnaire was used to assess the information related to the study. 24 hour dietary recall method was used to assess their nutritional status. Diet intake of 3 consecutive days was taken. Intake of various foods of per day was calculated and compared with RDA (ICMR, 2010). Average intake of food groups was calculated using the following formula :

$$\text{Per cent RDA} = \frac{\text{Excess or deficiency of food groups}}{\text{Amount of food groups recommended by RDA}} \times 100$$

OBSERVATIONS AND ANALYSIS

This Table 1 shows that consumption of homemade food was found greater than public school girls children. 85 per cent children of age 10, 79 per cent of age 11 and 92 per cent of age 12 years children preferred homemade food, on the other hand only 45 per cent of girls children age 10, 21 per cent of age 11, 19 per cent of age 12 was preferred homemade food always.

This Table 2 reveals the consumption of outdoor foods between public school and government school children. The Table 2 shows that the public school children were highly influenced by the outdoor foods which are not a good sign for health.

The Table 3 shows the food shown on TV was consumed in family. It was found that every age group children was influenced by the television advertisement. It effects eating behavior of public and government school children both. But the public school children were highly influenced by the products which were shown on TV.

This Table 4 shows that 25 per cent parents (of public school children) told that giving fast food to child is need of the hour. On the other hand 36 per cent parents (government school children) said that fast food satisfies the child's hunger.

This Table 5 shows the aspects before buying the food products. 26 per cent parents said that they influenced by the brand name and bought the product for their children.

The Table 6 shows higher intake of fats in public school children was found. 71 per cent extra fats in 10 years, 25.71 per cent in 11 years and 42.85 per cent in 12 years was found extra in their diet. The consumption of protein was found low in government school children.

Majority of girl's children was found that they did not preferred homemade food in the family. It was not good for their health for today and for future. They did not take their regular meals in proper amount. It was also found that the consumption of milk was very poor, which can lead to protein deficiency. Milk provides the

Option	Public school children			Government school children			
	10 years	11 years	12 years	Option	10 years	11 years	12 years
Always	45	21	19	Always	85	79	92
Often	25	26	27	Often	02	00	00
Sometimes	11	28	15	Sometimes	10	03	05
Rarely	15	25	34	Rarely	00	11	00
Never	04	10	05	Never	02	07	03
Total	100%	100%	100%	Total	100%	100%	100%

Option	Public school children			Government school children			
	10 years	11 years	12 years	Option	10 years	11 years	12 years
Always	55	42	69	Always	11	22	09
Often	11	21	23	Often	00	06	11
Fortnightly	12	17	05	Fortnightly	17	22	15
Rarely	22	09	03	Rarely	11	34	24
Almost never	00	11	00	Almost never	61	16	41
Total	100%	100%	100%	Total	100%	100%	100%

Option	Public school children			Government school children			
	10 years	11 years	12 years	Option	10 years	11 years	12 years
All the foods (90%-100%)	65	40	70	All the foods (90%-100%)	23	35	20
Some foods (40%-70%)	15	21	09	Some foods (40%-70%)	20	30	24
Very few (20%-40%)	08	09	11	Very few (20%-40%)	36	20	35
Almost nil (0-20%)	12	30	10	Almost nil (0-20%)	21	15	21
Total	100%	100%	100%	Total	100%	100%	100%

greatest amount of calcium in the diet. Adequate calcium intake is important for the development of bone mass and the reduction of life time risk of fractures and osteoporosis. The consumption of green leafy vegetables inadequate iron leads to anemia in future.

It was also found that they devoted their time on TV. They influenced by the products which was shown on TV. Public school children and government school children both were found highly influenced by the TV but public school children was found highly influenced by TV ads. Food products comprise the most highly advertised category on television networks that children watch most; and 98 per cent of advertised foods are of low nutritional value (Powell *et al.*, 2007).

A study by Diabetes Foundation of India (DFI) found that TV commercials have such impact on school children that they consider eating fatty foods fashionable. At least 54 per cent of children surveyed preferred buying foods shown in commercials and 59 per cent said they would continue to buy such foods (Bhardwaj *et al.*, 2008). It was also found in the study that the children consume

high calorie, salt, saturated fats and sugar in their daily diet which can develop the risk of diseases. If they eat occasionally this would not be affect problematic, but everyday eating of fast food products may affect their health. Diet of high sugar, salt, saturated fat and calorie is responsible for disabilities like obesity, hypertension, dyslipidemia and impaired glucose tolerance.

Snacks and junk foods consumed outside and home is one of the main risk factor for overweight and obesity. Parents /mothers play a major role for developing the eating habits for their children. They learn by their parents. Parents should teach their children of how to be critical of ads and how to become less influenced by the messages in the advertisements parents needs to teach their children the importance and value of health. Before buying any food products should be give importance to nutritive value. Because nutritive value is an information about the nutrients which has included in the food products. In Table 5 we found that people was influence by brand name. 26 per cent parents bought the product after influencing the brand name, and 21 per cent was

Table 4 : Giving fast food to child gives? - (for parents)

Sr. No.	Options	Public school children	Government school children
1.	Need of the hour	25	19
2.	Opportunity for social get together	19	09
3.	Feeling of elite class	17	15
4.	Satisfies child's hunger	22	36
5.	Saves time and energy	17	21
	Total	100%	100%

Table 5 : For buying any food products, you gives important to-(for parents)

Sr. No.	Options	Public school	Government school
1.	Nutritive value	11	33
2.	Label content	22	02
3.	Brand name	26	15
4.	Influenced by TV	21	31
5.	Price	20	19
	Total	100%	100%

Table 6 : Nutritional intake

Nutrients	Public school children			Government school children			
	10 years	11years	12years	Nutrients	10years	11 years	12 years
Energy	94.52	89.55	90.54	Energy	62.98	63.68	64.67
Protein	80.94	86.15	76.73	Protein	53.96	53.96	67.82
Fat	+71	+25.71	+42.85	Fat	99.1	68.56	91.42
Total	100%	100%	100%	Total	100%	100%	100%

*compared with RDA (ICMR, 2010)

influenced by the TV in public school children's. Only 11 per cent parents saw the nutritive value before buying the food products. Food promotion is having an effect, particularly on children's, preference purchase behaviour and consumption. This is independent other factors and operates at both a brand and category level (Hastings *et al.*, 2003). The role of parents and legal system plays crucial role in preventing the anti health ads influencing the children's eating habits due to the growing numbers of hours that children sit in the front of television, less physical activity and the epidemic of childhood obesity. Parents should restrict eating foods with poor nutrition content also limit television viewing time, remove television sets from children's bedrooms, monitor the shows children are watching and to watch television with the children.

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