

## **SNACKS CONSUMPTION AND OTHER LIFESTYLE PATTERN OF ADOLESCENT SCHOOL STUDENTS.**

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### **Abstract**

There are nearly one billion adolescents in the world accounting for 20-25% of the total population in the developing countries. The Adolescent period accelerates physical, biochemical and emotional development. But Increased TV viewing time among adolescent is associated with raised likelihood of overnight awakening in combination with unhealthy dietary habits and sedentary behavior. When children and young people watch TV, they appear to be more likely to engage in unhealthy dietary habits such as consuming more snacks and soft drinks (known as junk foods) and less fruit and vegetable. Watching television means inactivity, and inactivity has been linked with obesity and heart disease. Adolescent spent a lot of time while watching TV and eating snacks which cause weight gain among them.

Therefore present study was planned a

nd the area selected for the study was Samastipur districts of Bihar in India. The total sample size was 120 adolescents respondent . The government schools adolescent were consuming less fat than the private school adolescent. This may due to the reason the private school adolescent were consuming more junk foods and oily foods than the government school adolescent.

**Keywords:Snacks items;Nutrient intake;Adolescents;Lifestyle;Junk food**

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## 1.Introduction

The word Adolescent is derived from Latin word “Adolesere” means to grow to maturity. This Adolescent period accelerated physical, biochemical and emotional development. There are nearly one billion adolescents in the world accounting for 20-25% of the total population in the developing countries. It is time to period for the adoptions and consolidation of sound dietary habits. Many habits acquired during adolescence will last a lifetime. But Increased TV viewing time among adolescent is associated with raised likelihood of overnight awakening in combination with unhealthy dietary habits and sedentary behaviour. When children and young people watch TV, they appear to be more likely to engage in unhealthy dietary habits such as consuming more snacks and soft drinks (known as junk foods) and less fruit and vegetable. Junk foods are rich in calories, salt and fats. Excess consumption of junk foods leads to wide variety of health disorders. School canteens too are offering foods high in fat and sugar which actually contributing to the youth weight gains along with other problems like infection, food poisonings and dental disease. Consuming junk foods may hinder the children from taking healthy meals either at school or at home .The practices of high consumption of junk foods like maggi noodles, burgers, pao-bhaji, sandwiches, hotdogs, patties, pastries, pop-corn, potato chips, carbonated drinks, biscuits, muffins, toast, kulcha-chana, samosa, chocolate etc. have become common feature of adolescent’s diet through the world. They frequently over consumed fast foods and less consume fruits, vegetables and dairy products. According to the new data from some countries where surveys have been done, one in three adolescents is obese, overweight and obesity are now dramatically increasing in low- and middle-income countries ([WHO,2014](#))

Experimental study shows that television viewing act as destruction resulting in lacks of awareness about actual food consumption leading to over consumption and increased energy intake. TV viewing while eating a meal can also reduce satiety signals. TV viewing is normally a sedentary behavior & there is some evidence that high levels of sedentary behaviour are linked to be obesity.

## 2. Research and method:-

Therefore the present study was conducted with a view to snacks items consumption and other lifestyle pattern on adolescent school students in samastipur districts of Bihar in India. The total sample size was 120 adolescents respondent. Data was collected by personal interview and a pre-

planned questionnaire. The questionnaire consisted regarding general information, Nutrient intake and lifestyle pattern of their adolescents. The data have been represented in terms of Mean, SD, Frequency, Percentage and T-test.

### 3. Result and Discussion:-

General information about the subjects has been presented in Table 1. This table inferred that majority of the adolescent i.e., 41.6 percent and 38.4 percent from government and private school were of the age of 14 years followed by 33.4 percent and 26.6 percent of 15 years age group adolescent of government and private school. The table 1 further showed that 20 and 30 percent of adolescent from government and private school were of 13 years and 5 percent were of 16 years.

Table 1 also showed that 50 percent of adolescents were from both the government and private school studying in VIII<sup>th</sup> and IX<sup>th</sup> class.

Table 1 further revealed that majority of the adolescents i.e., 63.3 percent from government school and 66.6 percent from private school were non-vegetarian followed by 16.6 percent and 30 percent lacto-vegetarian from government and private school. The vegetarian from government school constitute 18.3 percent and from private school 1.6 percent. The Ovo-vegetarian both from government and private school constitute 1.6 percent.

**Table No. 1. General information of the subjects**

Particulars	(N=120)			
	Government school students (60)		Private school students (60)	
	Frequency	Percentage	Frequency	Percentage
<b>A. Age(years)</b>				
13	12	20	18	30
14	25	41.6	23	38.4
15	20	33.4	16	26.6
16	3	5.0	3	5.0
<b>B. Education</b>				

8 <sup>th</sup>	30	50	30	50
9 <sup>th</sup>	30	50	30	50
<b>C. Food habits</b>				
Vegetarian	11	18.3	1	1.6
Non-vegetarian	38	63.3	40	66.6
Ovo-vegetarian	1	1.6	1	1.6
Lacto-vegetarian	10	16.6	18	30

**Table No. 2. Anthropometric measurements of subjects**

Particulars	(N=120)			
	Government school students (60)		Private school students (60)	
	Frequency	Percentage	Frequency	Percentage
<b>A.Height(cm)</b>				
133-145	1	1.6	-	-
145-151	26	43.3	28	46
152-158	32	53.3	32	53.3
159-165	1	1.6	-	-
<b>B.Weight(kg)</b>				
30-40	21	35	22	36.6
40-50	36	60	33	55
50-60	3	5	5	8.3
<b>C.BMI(kg/m<sup>2</sup>)</b>				
15-<18	17	28.3	20	33.3
18-<21	37	61.6	29	48.3
21-<24	6	10	11	18.3

**Height**

Table 2 inferred that 53.3 percent of subjects both from government and private school falls in the category of (152-158) cm, followed by 43.3 percent subjects from government school and 46 percent subjects from private school in the region of (145-151)cm and 1.6 percent subjects from government school falls in the region of (159-165)cm and (133-145)cm. Table 3 inferred that the

height of government school adolescent were less compared to the height of private school subjects. This may be attributed due to the fact that government school subjects have poor nutritional intake than the private school subjects.

### Weight

In relation to weight 35 and 36.6 percent of subjects from government and private school fall in between (30-40) kg, followed by 60 & 55 percent of the subjects from government and private school in the range of (40-50) kg and 5 & 8.3 percent of subjects from government and private school fell in between (50-60) kg. The weight of both government and private school adolescent were approximately same.

### BMI

BMI is the parameter to denote a person of ideal weight, over weight and obese. It observed from the table 2 that 61.6 and 48.3 percent of subjects from government and private school were having BMI 18-<21, 28.3 and 33.3 percent of subjects from government and private school were in the range of 15-<18 and 10 and 18.3 percent of subjects from government and private school were in the range of 21-<24. This inferred that the private school adolescent had lower BMI compared to the government school adolescent. This reason may be because the government school adolescent would have eaten more green leafy vegetable, cereals and pulses than private school adolescents, because of their economic condition but as the family income increases, the tendency towards eating green leafy vegetable by the adolescent specially decreases & other costly items increases, including junk foods.

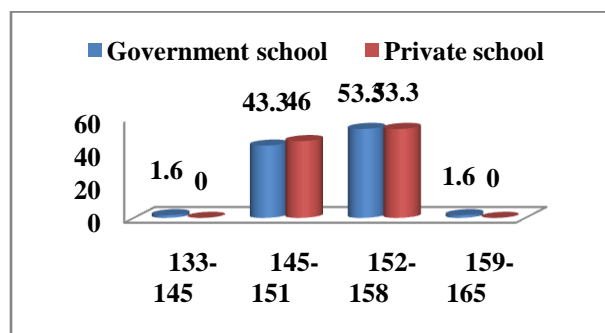


Fig. 1. Height (cm) of the subjects

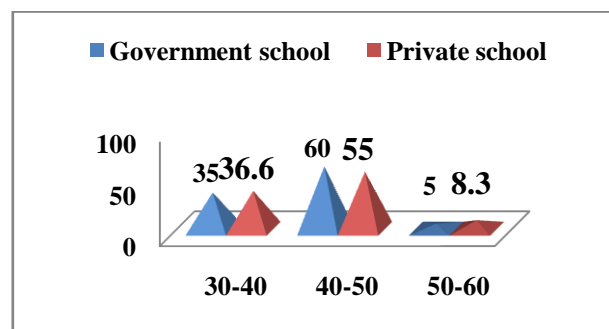
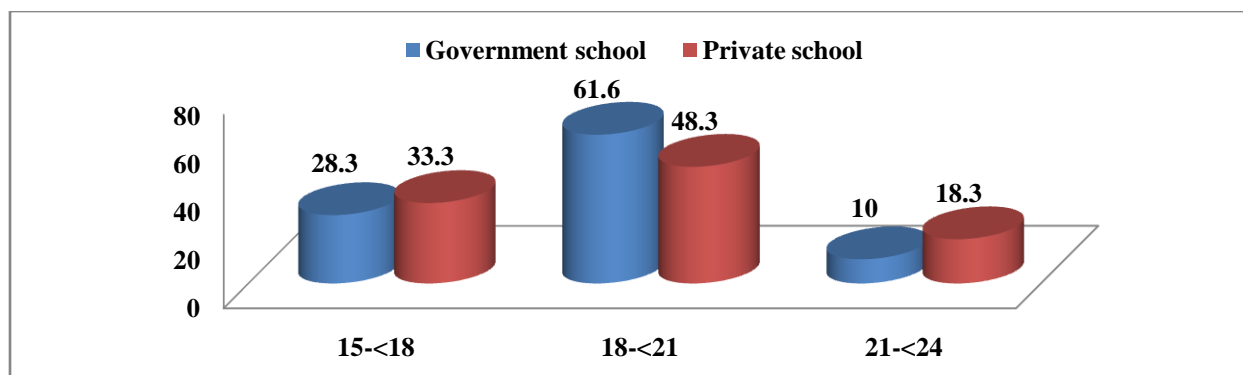


Fig. 2. Weight (kg) of the subjects



**Fig. 3. BMI of the subjects**

**Table No. 3. Difference between nutrient intake by the subjects.**

Particulars	Government school (60)	Private school(60)	
	Mean±SD	Mean±SD	Difference(t-test)
Energy(kcal)	1571.47±235.71	1605.45±227.57	0.78
Protein(gm)	43.5±7.99	45.17±9.8	0.48
Fat(gm)	42.39±12.5	46.79±10.16	2.04*
Iron (mg)	28.9±9.51	30.40±6.94	0.99
Calcium (mg)	340.72±116.13	369.04±112.68	0.17

\*. Correlation is significant at the 0.05 level.

It was observed from Table 3 that the mean±SD of energy, protein, fat, Iron and calcium of private school adolescent was more than the government school adolescent.

T-test was also computed to found the statistical difference between government and private school subjects nutrient intake. The energy, protein, iron and calcium intake differences between government and private school subjects were found statistically non-significant while the fat intake was found statistically significant and positive. The government school adolescent were consuming less fat than the private school adolescent. This may due to the reason the private school adolescent were consuming more junk foods and oily foods than the government school adolescent. This finding was found in line with the finding of Aziz S and Hosain K (2014).

**Table No. 4. Life style patterns of subjects (N=120)**

Parameters	Government (60)		Private (60)	
	Frequency	Percentage	Frequency	Percentage
<b>A.Activity</b>				
Cycling	43	71.6	40	66.6
Walking	14	23.3	18	30
Watching TV	54	90	57	95
Networking	25	41.6	30	50

The Table 4 also showed the participation of subjects in activities. The government school subjects participated maximum in watching T.V.(90%) while from private school maximum subjects participated in watching T.V., (95%). While from both the government and private school, adolescent participated minimum in walking.

Table 4 further inferred that more number of children from private school were participating in activity like walking, watching T.V. and networking while government school adolescent were participating more in cycling. This may be attributed to the fact that the socio-economic condition of almost private school adolescent was good compared to the government school adolescent. 95 percent of private school adolescent and 90 percent of government school adolescent were watching T.V., 66.6 percent adolescent from private school and 71.6 percent from government school were doing cycling, 30 percent from private school and 23.3 percent adolescent from government school were doing morning or evening walk and 50 percent adolescent from private school and 41.6 percent from government were using networking sites.



**Figure 4. Cycling and walking of subjects****Table No. 5. Snack intake by the subjects (N=120)**

Parameters	Government school students (60)		Private school students (60)	
	Frequency	Percentage	Frequency	Percentage
<b>A.Snacks items(gm)</b>				
Biscuit	50	83.3	52	86.6
Cookies	1	1.6	1	1.6
Mixture	29	48.3	30	50
Lays	9	15	15	25
Kurkure	20	33.3	15	25
Maggie	44	73.3	50	83.3
Chowmin	2	3.3	4	6.6
Riceflake	32	53.3	21	35
Rice puffed	11	18.3	13	21.6
Thumsup	8	13.3	7	11.6
Sprite	8	13.3	8	13.3
Fanta	5	8.3	9	15
Mazza	21	35	26	43.3
Pepsi	15	25	10	16.6
Kit-kat	5	8.3	8	13.3
Dairy milk	13	21.6	19	31.6
Gems	-	-	3	5
5-star	3	5	2	3.3
Munch	4	6.6	12	20
Perk	5	8.3	-	-
Choco-chrunch	5	8.3	-	-



Table 5 also showed that in terms of snacks items consumption the maximum consumption by both government and private school subjects was of biscuit and the minimum was of gems and perk and choco-chrunch.

**Table No. 6. Average daily snacks intake (N=120)**

Parameters	Government school (60)	Private school(60)
	Mean±SD	Mean±SD
Biscuits	4.09±2.43	4.84±2.67
Lays	0.22±0.56	0.62±1.42
Kurkure	0.71±1.13	0.72±1.53
Chocolate	1.05±2.70	0.94±1.59
Maggie	4.15±3.33	6.97±4.53
Rice flake	2.42±3.80	2.02±2.84
Puffed rice	0.85±1.93	0.90±1.86
Mixture	1.93±1.90	1.34±1.65
Cold drinks	9.29±6.03	13.1±4.74

Table 6 inferred that the Mean±SD of biscuit consumption of private school adolescent(4.84±2.67) was more than the government school adolescent(4.09±2.43). The lays, Maggie, kurkure, puffed rice, cold drink, fruits and non-veg consumption were more in private school adolescent compared to government school adolescent while the consumption of chocolate, and rice flake were more in government school adolescent than private school adolescent.

### **Conclusion:-**

Watching television means inactivity, and inactivity has been linked with obesity and heart disease. Adolescent is the time period for the adoptions and consolidation of sound dietary habits. Many habits acquired during adolescence will last a lifetime. But Increased TV viewing time among adolescent is associated with raised likelihood of overnight awakening in combination with unhealthy dietary habits and sedentary behavior.

**Reference:-**

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