Assess the Prevalence of Overweight and Obesity among School Adolescents

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Abstract: Obesity among children has emerged as one of the most serious public concern in the 21st century. The world health organization describes over weight and obesity is one of today's most important public health problems which are escalating as a global epidemic. The present study was carried out with an objective to assess the prevalence of overweight and obesity among school adolescents aged 13-16 years. Purposive non-probability sampling technique was used to select 213 children from government and private schools. The prestructured questionnaire was used to assess the socio-demographic variables, dietary factors and life style factors of school adolescents. The anthropometric measurements such as height and weight were checked using measuring tape and weighing scale respectively, and thereafter body mass index was calculated according to WHO standards. The findings revealed that the mean and standard deviation of height, weight and BMI of male and female adolescents was 156.1 ± 6.6 , 47.1 ± 10.9 , 19.2 ± 3.9 ; and 153.1 ± 4.8 , 46.5 ± 9.3 , 19.8 ± 3.5 respectively. The median of height, weight and BMI of male and female adolescents was 156 cm, 46 kg, 18.1 kg/m2; and 153 cm, 45 kg, 19.3 kg/m2 respectively. The range of height, weight and BMI of male and female adolescents was 64 cm, 55 kg and 20.2 kg/cm2; 22 cm, 46 kg and 18.5 kg/cm2 respectively. The overall prevalence of overweight was higher in female adolescents as compared to male adolescents whereas the overall prevalence of obesity was higher in male adolescents as compared to female adolescents.

Keywords: Prevalence, Overweight, Obesity, Children, Adolescents

I. Introduction

Obesity among children has emerged as one of the most serious public concern in the 21st century. The World Health Organization has described obesity as one of today's most neglected public health problems, affecting every region of the globe. The worldwide prevalence of obesity has more than doubled between 1980 and 2014. World Health Organization commission on childhood obesity found that 41 million under-fives were overweight or obese in 2014. The statistics mean that 6.1 percent of under-fives were overweight or obese in 2014, compared with 4.8 percent in 1990. The number of overweight children in lower middle-income countries like India more than doubled over the same period, from 7.5 million to 15.5 million. In the same period, 39% of adults aged 18 years and over (38% of men and 40% of women) were overweight. India reportedly witnesses 10 million cases of Childhood obesity annually.

According toZayed et al., (2016) the overall prevalence of short stature, underweight, overweight, and obesity were 4.9 %, 5.7 %, 17.3 %, and 15.7 %, respectively among school children aged 6-17 years in Jordan. Short stature and underweight were most prevalent in the rural South while obesity was highest in the Central region. Females were more likely to be overweight, while males were more likely to be obese. Private schools had higher prevalence of obesity and overweight than public ones .Anuradha et al., (2015)indicatedthe prevalence of overweight and obesityamong twelve to sixteen years school children were 11.2 percent and 4.8 percent of boys and 10.3 percent and 4.8 percent of girls respectively.

II. Methodology

Non experimental research approach was used with descriptive survey research design. The setting of the present study was the two government school (Shakuntla Devi Senior Secondary School and B. N. Khalsa Senior Secondary School) and one private school (Guru TeghBahadur School) of Patiala, Punjab. 213 school children of thirteen to sixteen years were selected by purposive non-probability sampling technique. The criteria for selection of sample subjects were:

- studying in the selected schools of Patiala.
- willing to participate in the study.
- available at the time of data collection.

The tool was developed to collect the information regarding socio-demographic variables, dietary factors and life style factors using paper pencil technique. Anthropometric measurements such as height and weight were taken. Height was measured bare feet using measuring tape and weight was checked using weighing scale while ensuring zero error in the scale. Thereafter BMI has been calculated and classified according to World Health Organization standards. The classification of BMI was presented in table 1.

 Table 1: Classification of BMI According to WHO Standards

BMI Range	Interpretation
< 15	Starvation
15 - 18.5	Underweight
18 - 25	Normal
25 – 30	Overweight
30 – 40	Obese
> 40	Morbidly obese

Formal administrative approval was obtained from the selected schools of Patiala to conduct the study. Data was collected in a week from 24th May, 2016 to 1st June 2016.

III. Results

Frequency and percentage distribution were calculated to describe the sample characteristics. The findings were presented in table 2.

Table 2: Frequency and Percentage Distribution of Demographic Characteristics of School Adolescents

Sr. No	Demographic	Male $(N = 81)$	l)	Female (N = 132)	
	characteristics	Frequency	Percentage	Frequency	Percentage
		(f)	(%)	(f)	(%)
1	Age				
1.1	13 years	19	23.5	27	20.5
1.2	14 years	22	27.1	38	28.7
1.3	15 years	20	24.7	41	31.1
1.4	16 years	20	24.7	26	19.7
2	Gender	81	38.1	132	61.9
3	Age of menarche				
3.1	9 year	-	-	01	00.7
3.2	10 year	-	-	03	02.2
3.3	11 year	-	-	04	03.0
3.4	12 year	-	-	66	50.0
3.5	13 year	-	-	44	33.3
3.6	14year	-	-	09	06.8
3.7	15 year	-	-	02	01.0
4	Birth order				
4.1	1	44	54.4	52	28.5
4.2	2	15	18.5	52	28.5
4.3	3	11	13.5	16	12.2
4.4	4	01	01.3	11	08.4
4.5	5	00	0.00	00	0.00
4.6	6	01	01.3	01	00.7
5	Type of school				
5.1	Government	50	61.7	95	71.9
5.2	Private	31	38.3	37	28.1
6	Class				
6.1	8 th	12	14.8	25	19.0
6.2	9 th	31	38.2	37	28.0
6.3	10 th	38	47.0	49	37.0
6.4	11 th	00	00.0	21	16.0
7	Residence				
7.1	Rural	14	17.3	18	13.6
7.2	Urban	67	82.7	114	86.4
8	Dietary habits	1			
8.1	Vegetarian	54	66.7	100	75.6
8.2	Non-vegetarian	25	30.8	21	16.0
8.3	Eggetarian	02	02.5	11	08.4
9	Father's	1			
	education				
9.1	Illiterate	08	09.8	21	16.0
9.2	Elementary	11	13.6	32	24.2

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9.3	Matriculation	15	18.6	23	17.5
9.4	Senior secondary	18	22.2	31	23.4
9.5	Graduate	25	30.8	18	13.6
9.6	Post graduate and	04	05.0	07	05.3
	above				
10	Mother's				
	education				
10.1	Illiterate	11	13.6	25	19.0
10.2	Elementary	17	20.9	22	16.4
10.3	Matriculation	08	09.9	29	22.0
10.4	Senior secondary	17	20.9	27	20.4
10.5	Graduate	18	22.3	17	13.0
10.6	Post graduate and	10	12.4	12	09.2
	above				
11	Father's				
	occupation				
11.1	Unemployment	03	03.7	06	04.5
11.2	Private service	27	33.4	61	46.2
11.3	Government	14	17.3	13	10.0
	service				
11.4	Business/Self	37	45.6	52	39.3
	employed				
12	Mother's				
	occupation				
12.1	Housewife	66	81.4	99	75.0
12.2	Private service	08	09.8	20	15.2
12.3	Government	04	04.9	04	03.0
	service				
12.4	Business/Self	03	03.7	09	06.8
	employed				
13	Family income				
13.1	<5,000	19	23.5	49	37.1
13.2	5,001-10,000	16	19.7	39	29.5
13.3	10,001-15,000	07	08.7	09	07.0
13.4	15,001-20,000	16	19.7	16	12.1
13.5	>20,000	23	28.4	19	14.3
14	Type of family				
14.1	Nuclear	57	70.4	22	16.6
14.2	Joint	24	29.6	110	83.4
15	Size of family				
15.1	1-4	33	40.0	38	29.0
15.2	5-7	37	46.0	57	43.1
15.3	8-10	08	10.0	22	16.6
15.4	11and above	03	04.0	15	11.3

Table 2 depicts the frequency and percentage distribution of socio-demographic characteristics of school adolescents. Maximum number of male adolescents (22) was in the age of 14 years whereas most of female adolescents (41) were in the age of 15 years. Female adolescents (132) were higher as compared to male adolescents (81). Regarding age of menarche, the majority of female adolescent (66) were in the age of 12 years. The maximum numbers of male adolescents (44) and female adolescents (52) were in first birth order. Most of male adolescents (50) and female adolescents (95) were studying in government schools. Majority of male adolescents (38) and female adolescents (49) were studying in the 10th class. Maximum number of female adolescents (114) was residing in urban area as compared to male adolescents (67) while maximum number of male adolescents was residing in rural area (18) in comparison to female adolescents (14). Mostly male adolescents (54) and female adolescents (100) were vegetarian. Majority of male adolescents' fathers (25) were graduates. In contrast to that female adolescents' fathers (32) were educated up to elementary. Most of male adolescents' mothers (18) were graduates. On the contrary maximum number of female adolescents' mothers (29) was educated up to matriculation. Majority of male adolescents fathers' (37) were doing business/selfemployed whereas half number of female adolescents'fathers' (61) were on private job.Most of male adolescents mothers' (66) and female adolescents mothers' (99) were housewives. The maximum family income of male adolescents (23) were more than 20000/- while the family income of female adolescents (49) were below 5,000.Maximum male adolescents (57) and female adolescents (110) belonged to nuclear family. Most of male adolescents' family size (37) and female adolescents' family size (57) was 5-7 members.

Table 3: Level of Prevalence of Overweight and Obesity According to WHO Standards among Male and Female School Adolescents

N=213

Body Mass Index	Male (N=81)		Female (N=132)		
			Frequency	Percentage	
Ctomustion	(f)	13.5	(f)	(%)	
Starvation	11		06	04.6	
Underweight	33	40.6	45	34.0	
Normal	32	39.5	68	51.6	
Overweight	03	04.0	12	09.0	
Obesity	02	02.4	01	00.8	

^{*}Starvation: <15; Underweight: 15-18.5; Normal: 18.5-25; Overweight: 25-30; Obesity: 30-40

Table 3 depicts the level of prevalence of overweight and obesity among male and female school adolescents. Mostly male adolescents (33) were underweight whereas more than half of female adolescents (68) were normal.

Table 4: Mean, Median Standard Deviation and Range of Height, Weight and BMI of Male and Female School Adolescents

N = 213

Variables	Height (cm)		Weight (kg)		BMI (kg/m²)	
	Male (N=81)	Female (N=132)	Male (N=81)	Female (N=132)	Male (N=81)	Female (N=132)
Mean ± SD	156.1± 6.6	153.1 ±4.8	47.1± 10.9	46.5 ± 9.3	19.2 ± 3.9	19.8 ± 3.5
Median	156	153	46	45	18.1	19.3
Range	64	22	55	46	20.2	18.5

Table 4 depicts the mean, median and standard deviation of height, weight and BMI of male and female school adolescents. The mean and standard deviation of height, weight and BMI of male and adolescents was 156.1 ± 6.6 , 47.1 ± 10.9 , 19.2 ± 3.9 ; and 153.1 ± 4.8 , 46.5 ± 9.3 , 19.8 ± 3.5 respectively. The median of height, weight and BMI of male and female adolescents was 156 cm, 46 kg, 18.1 kg/m²; and 153 cm, 45 kg, 19.3 kg/m² respectively. The range of height, weight and BMI of male and female adolescents was 64 cm, 55 kg and 20.2 kg/cm²; 22 cm, 46 kg and 18.5 kg/cm² respectively.

 Table 5: Frequency and Percentage Distribution of Dietary Factors of School Adolescents

N = 213

Sr. no.	Dietary factors	Male (N=81)		Female (N=132)				
		Frequency	Percentage	Frequency	Percentage			
		(f)	(%)	(f)	(%)			
		How often do you consume coffee daily?						
1.1	Once	21	25.9	26	19.7			
1.2	Twice	06	07.4	20	15.2			
1.3	Thrice	04	04.9	02	01.5			
1.4	Four or more times	02	02.5	03	02.3			
1.5	None	48	59.3	81	61.4			
		How often do	you consume te	a daily?				
2.1	Once	35	43.2	49	37.1			
2.2	Twice	18	22.2	18	13.6			
2.3	Thrice	00	0.00	01	00.8			
2.4	Four or more times	00	0.00	02	01.5			
2.5	None	28	34.6	63	47.7			
	How often do you consume milk daily?							
3.1	Once	37	45.6	65	49.2			
3.2	Twice	22	27.2	17	12.9			
3.3	Thrice	08	09.9	02	01.5			
3.4	Four or more times	05	06.2	01	00.8			
3.5	None	09	11.1	44	33.3			
	How often do you consume juice daily?							
4.1	Once	36	44.4	47	35.6			
4.2	Twice	12	14.8	24	18.3			
4.3	Four or more times	01	01.3	03	02.3			
4.4	None	29	35.8	49	37.1			
	How often do you consume coca cola/aerated drinks daily?							
5.1	Once	30	37.0	49	37.1			
5.2	Twice	07	08.6	13	09.8			
5.3	Thrice	00	0.00	06	04.5			

What do you drink with meals?						
What do you drink with meals?	5.4	Four or more times	02	02.5	03	02.3
6.1 Water 68 8.3.9 113 85.6 6.2 Juice 04 04.9 07 05.3 6.3 Tea 00 00.0 0.0 02 01.5 6.4 Coffee 03 03.7 01 00.8 6.5 Coca cola or 01 01.3 02 01.5 6.6 Something lese 04 04.9 01 00.8 6.6 Nothing 01 01.3 05 03.8 What do you normally have for breakfast? 7.1 Parantha 55 67.9 82 62.1 7.2 Nan 00 00.0 01 10.03 7.3 Bread 04 04.9 13 09.8 7.4 Cercal 00 00.0 01 10.0 7.5 Milk 16 19.8 21 15.9 7.6 Tea 07 08.6 27 20.5 7.7 Coffee 00 00.0 05 03.8 Juice 01 01.3 03 02.3 7.8 Juice 01 01.3 03 02.3 7.9 Fruit 00 00.0 00 01 00.8 7.10 Any other 04 04.9 02 01.5 7.11 Combination 01 01.3 03 02.3 7.12 Nothing 00 00.0 02 01.5 What do you usually have for sweet dish? 8.1 Fruit 33 40.7 59 14.7 8.2 Sweets 13 16.0 22 16.7 8.4 Chapatri with ghee and shakar 8.2 8.4 Chapatri with ghee and shakar 8.2 8.5 Chocolate 08 09.9 39 29.5 8.6 Any other 06 07.4 00 00.0 8.8 Nothing 15 18.5 15 11.4 How often do you eat breakfast before going to school? 9.1 Always 15 18.5 15 11.4 How often do you sat breakfast before going to school? 11.1 Always 37 42.2 12.1 Always 37 45.7 How often do you eat sweet dish with lunch? 11.1 Always 34 42.0 3.3 12.4 Never 13.3 14.7 13.3 Sometimes 14 17.3 42 31.8 13.4 Ory rarely 03 03.7 10 07.6 13.4 Never 25 33.4 46 34.8 14.4 News 37 45.7 52 39.4 14.5 Never 15 38.5 15 11.4 14.4 Very rarely 08 09.9 31 23.5 15.5 Never 15 33.4 42.0 31.8 15.6 Never 15 34.4 42.0 31.8 15.7 Combination 09 00.0 00.0 00.0 15.8 Nothing 15 18.5 15 11.4 14.4 Very rarely 08 09.9 31 23.5 15.5 Never 15 33.4 45.7 52 39.4 16.5 Never 15 33.4 42.0 31.2 17.1 Always 37 45.7 52 39.4 17.1 Always 37 45.7 52 39.4 18.2 Sometimes 18 22.2 31 23.5 18.3 Sometimes 18 22.2 31 23.5 18.4 Very rarely 07 08.6 07.4 03 00.3 18.5 Sometimes 18 22.2 31 23.5 18.5 Proquently 07 08.6 07.4 03 00.3 18.5 Prequently 07 08.6 07.4 03 00.3 18.5 Prequently 07 08.6 07.4 03 00.3 18.5 Prequently 07 08.6 09.9 31 23.5 18.5 Description of 09.9 11.1 19.5 Never 26 32.1 47 35.5 19.4 How often do you eat sweet dish with lunch? 11.1 Always 37 45.7 52 39.4 11.2 Frequently 07 08.6 0	5.5			51.9	58	43.9
6.2 Juice 0.4 0.4 0.9 0.7 0.5.3 6.3 Tea 0.0 0.0 0.0 0.2 0.1.5 6.4 Coffee 0.3 0.3.7 0.1 0.0.8 6.5 Coca colar 0.1 0.1.3 0.2 0.1.5 6.6 Something else 0.4 0.4.9 0.1 0.0.8 6.6 Something else 0.4 0.4.9 0.1 0.0.8 6.6 Something else 0.4 0.4.9 0.1 0.0.8 7.1 Parantha 55 67.9 82 62.1 7.2 Nan 0.0 0.0.0 0.1 0.0.8 7.3 Bread 0.4 0.4.9 1.3 0.9 7.4 Ccreal 0.0 0.0.0 0.1 0.0.8 7.5 Milk 1.6 1.9 2.1 1.5.9 7.6 Tea 0.7 0.8.6 2.7 20.5 7.7 Coffee 0.0 0.0.0 0.1 0.0.8 7.8 Juice 0.1 0.1.3 0.3 0.2.3 7.9 Fruit 0.0 0.0.0 0.5 0.3.8 7.9 Fruit 0.0 0.0.0 0.1 0.0.8 7.10 Any other 0.4 0.4.9 0.2 0.1.5 7.11 Combination 0.1 0.1.3 0.8 0.6.1 7.12 Nothing 0.0 0.0.0 0.2 0.1.5 8.2 Sweets 1.3 1.6 0.2 1.6 8.4 Chaparti with ghee 0.6 0.7.4 0.0 0.0.0 8.5 Chocolate 0.8 0.9.9 3.9 2.9.5 8.6 Any other 0.6 0.7.4 0.2 0.1.5 8.7 Combination 0.0 0.0 0.0 0.0 0.0 8.5 Chocolate 0.8 0.9.9 3.9 2.9.5 8.6 Any other 0.6 0.7.4 0.2 0.1.5 8.7 Combination 0.0 0.0.0 0.0 0.0 8.7 Combination 0.0 0.0.0 0.0 0.0 8.8 Chocolate 0.8 0.9.9 3.9 2.9.5 8.6 Any other 0.6 0.7.4 0.2 0.1.5 8.7 Combination 0.0 0.0.0 0.0 0.0 8.8 Chocolate 0.8 0.9.9 3.9 2.9.5 8.6 Any other 0.6 0.7.4 0.2 0.1.5 9.1 Always 59 72.8 64 48.5 9.2 Frequently 0.2 0.2.5 0.1 0.0.8 9.3 Sometimes 1.4 1.7.3 4.2 31.8 9.4 Very rarely 0.3 0.3.7 0.7 0.5.3 9.5 Never 0.3 0.3.7 0.7 0.5.3 9.5 Never 0.3 0.3.7 0.7 0.5.3 11.1 Always 34 42.0 40 3.0 11.2 Frequently 0.1 0.1.3 0.2 0.1.5 11.3 Sometimes 1.4 1.7.3 4.2 31.8 13.4 Very rarely 0.7 0.8.6 0.7 0.7 0.5.3 13.5 Never 1.5 1.5 5.5 5.5 0.1 0.0.8 13.6 Frequently 0.7 0.8.6 0.7 0.0 0.0 13.7 14.4 0.7 0.0 0.0 14.4 Very rare		What do you drink	with meals?			
6.3 Tea	6.1	Water	68	83.9	113	85.6
6.4 Coffee	6.2	Juice	04	04.9	07	05.3
Coca cola or actrated drinks	6.3				02	
December	6.4	Coffee	03	03.7	01	00.8
6.6 Something else 04 04.9 01 00.8 6.7 Nothing 01 01.3 05 03.8 What do you normally have for breakfast? 7.1 Parantha 55 67.9 82 62.1 7.2 Nan 00 00.0 01 00.8 7.3 Bread 04 04.9 13 09.8 7.4 Cereal 00 00.0 01 00.8 7.5 Milk 16 19.8 21 15.9 7.6 Tea 07 08.6 27 20.5 7.7 Coffee 00 00.0 05 03.8 7.8 Juice 01 01.3 03 02.3 7.9 Fruit 00 00.0 01 00.8 7.10 Any other 04 04.9 02 01.5 7.11 Combination 01 01.3 08 06.1 7.12 Nothing 00 00.0 02 01.5 What do you usually have for sweet dish? 8.1 Fruit 33 16.0 22 16.7 8.2 Sweets 13 16.0 22 16.7 8.4 Chapatit with glace 06 07.4 00 00.0 8.5 Chocolate 08 09.9 39 29.5 8.6 Any other 06 07.4 02 01.5 8.7 Combination 01 00.0 00.0 00.0 8.8 Nothing 15 11.3 8.7 Combination 09 00.0 00.0 00.0 8.8 Fruit 33 46 48.5 8.9 Frequently 02 02.5 01 00.0 8.8 Nothing 15 11.4 17.3 42 31.8 9.1 How often do you eat breakfast before going to school? 9.1 Always 59 7.2 64 48.5 9.2 Frequently 02 02.5 01 00.8 9.3 Sometimes 14 17.3 42 31.8 9.4 Very rarely 03 03.7 18 13.6 10.2 Frequently 01 01.3 02 01.5 10.3 Sometimes 23 28.4 41 31.1 10.4 Very rarely 03 03.7 10 07.6 10.5 Never 03 03.7 10 07.5 10.1 Always 34 42.0 35 07.5 10.2 Frequently 01 01.3 02 01.5 10.3 Sometimes 23 28.4 41 31.1 10.4 Very rarely 08 09.9 31 23.5 10.5 Never 15 18.5 23 17.4 11.1 Always 34 42.0 40 30.3 12.3 Sometimes 23 28.4 41 31.1 13.4 Very rarely 06 07.4 07.6 07.5 13.5 Never 15 18.5 23 17.4 14.6 Very rarely 09 09 11.1 17 12.9 15.1 Always 37 45.7 52 39.4 16.2 Frequently 07 08.6 07 05.3 17.4 1.4 1.4 1.5 1.4 18.5 S	6.5	Coca cola or	01	01.3	02	01.5
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What do you normally have for breakfast?		Ü				
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12.5 Never 12 14.8 29 22.0 How often do you eat sweet dish with lunch? 13.1 Always 12 14.8 15 11.4 13.2 Frequently 03 03.7 04 03.0 13.3 Sometimes 34 42.0 40 30.3 13.4 Very rarely 07 08.6 23 17.4 13.5 Never 26 32.1 47 35.6 How often do you eat sweet dish with dinner? 14.1 Always 11 13.6 13 09.8 14.2 Frequently 08 09.9 08 06.1 14.3 Sometimes 27 33.3 46 34.8 14.4 Very rarely 06 07.4 26 19.7 14.5 Never 25 30.9 36 27.3 How often do you eat fast foods in restaurants in a week?	12.4			11.1		12.9
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13.5 Never 26 32.1 47 35.6 How often do you eat sweet dish with dinner? 14.1 Always 11 13.6 13 09.8 14.2 Frequently 08 09.9 08 06.1 14.3 Sometimes 27 33.3 46 34.8 14.4 Very rarely 06 07.4 26 19.7 14.5 Never 25 30.9 36 27.3 How often do you eat fast foods in restaurants in a week?	13.4	Very rarely			23	17.4
14.1 Always 11 13.6 13 09.8 14.2 Frequently 08 09.9 08 06.1 14.3 Sometimes 27 33.3 46 34.8 14.4 Very rarely 06 07.4 26 19.7 14.5 Never 25 30.9 36 27.3 How often do you eat fast foods in restaurants in a week?	13.5	Never			47	35.6
14.1 Always 11 13.6 13 09.8 14.2 Frequently 08 09.9 08 06.1 14.3 Sometimes 27 33.3 46 34.8 14.4 Very rarely 06 07.4 26 19.7 14.5 Never 25 30.9 36 27.3 How often do you eat fast foods in restaurants in a week?			at sweet dish w			
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14.3 Sometimes 27 33.3 46 34.8 14.4 Very rarely 06 07.4 26 19.7 14.5 Never 25 30.9 36 27.3 How often do you eat fast foods in restaurants in a week?						
14.5 Never 25 30.9 36 27.3 How often do you eat fast foods in restaurants in a week?	14.3	Sometimes	27	33.3		34.8
How often do you eat fast foods in restaurants in a week?	14.4	Very rarely			26	19.7
	14.5	Never	25	30.9	36	27.3
		TT	at foot foods in	roctouronte in	o wools?	•
		How often do you ea	at last loods iii	restaurants in	a week.	

15.7	Never	35	43.2	45	34.1		
_	How often do you di		e following dinn				
16.1	Once	15	18.5	21	15.9		
16.2	Twice	11 00	13.6	05	03.8		
16.3 16.4	Thrice Four or more times	00	00.0	01	00.8		
16.5	Daily	03	03.7	04	03.0		
16.6	Never	52	64.2	101	76.5		
	How often do you sk	,*					
17.1	Once	19	23.5	40	30.3		
17.2 17.3	Twice Thrice	09	11.1 03.7	31 08	23.5 06.1		
17.4	Four times	03	03.7	08	00.1		
17.5	Five or more times	01	01.2	01	00.8		
17.6	Never	44	54.3	50	37.9		
	Which is your most				,		
18.1	Breakfast	22	27.2	52	39.4		
18.2 18.3	Lunch Dinner	13	16.0 14.8	37	15.2 28.0		
18.4	Not applicable	33	40.7	23	17.4		
10.1	How often do you su			_	1 - / - !		
19.1	Once	20	24.7	48	36.4		
19.2	Twice	18	22.2	33	25.0		
19.3	Thrice	08	09.9	01	00.8		
19.4 19.5	Four or more times Never	30	04.9 37.0	39	08.3 29.5		
19.5	Nevel	30	37.0	39	29.3		
20.1	Sweet	23	28.4	30			
20.2	Salty	20	24.7	43			
20.3	Baked	11	13.6	15	11.4		
20.4	Fried Any other	27	33.3 00.0	40	30.3 00.8		
20.6	Not applicable	00	00.0	01	00.8		
20.7	Combination	00	00.0	01	00.8		
	At what time do you	generally take	snacks?	ľ	•		
21.1	As soon as I get up	03	03.7	07	05.3		
21.2	Between breakfast	11	13.6	17	12.9		
21.3	and lunch Between lunch and	44	54.3	77	58.3		
21.5	evening tea	44	34.3	''	36.3		
21.4	Between tea and	15	18.5	21	15.9		
	dinner						
21.5	Between dinner and	08	09.9	10	07.6		
	bed time What kind of oil is routinely used for cooking at home?						
22.1	Mustard oil	31	38.3	59	44.7		
22.2	Vegetable oil	25	30.9	41	31.1		
22.3	Sunflower oil	08	09.9	15	11.4		
22.4	Pure ghee	16	19.8	12	09.1		
22.5 22.6	Any other Combination	01	01.2 00.0	03	02.3		
22.U	With which meal do			01	00.0		
	Breakfast	12	14.8	27	20.5		
23.1	School lunch	21	25.9	41	31.1		
23.2		15	18.5	20	15.2		
23.2 23.3	Lunch		0.4.0		1 177 6		
23.2 23.3 23.4	Dinner	04	04.9	10	07.6		
23.2 23.3 23.4 23.5	Dinner Any other	04 03	03.7	02	01.5		
23.2 23.3 23.4	Dinner Any other Never	04 03 26	03.7 32.1				
23.2 23.3 23.4 23.5	Dinner Any other	04 03 26	03.7 32.1	02	01.5		
23.2 23.3 23.4 23.5 23.6 24.1 24.2	Dinner Any other Never Which butter do you White butter Yellow butter	04 03 26 1 take in routine 34 15	03.7 32.1	02 33 43 36	01.5 25.0		
23.2 23.3 23.4 23.5 23.6 24.1 24.2 24.3	Dinner Any other Never Which butter do you White butter Yellow butter Nutrilite butter	04 03 26 1 take in routine 34 15	03.7 32.1 ? 42.0 18.5 12.3	02 33 43 36 17	01.5 25.0 32.6 27.3 12.9		
23.2 23.3 23.4 23.5 23.6 24.1 24.2 24.3 24.4	Dinner Any other Never Which butter do you White butter Yellow butter Nutrilite butter Any other	04 03 26 1 take in routine 34 15 10	03.7 32.1 ? 42.0 18.5 12.3 03.7	02 33 43 36 17 02	01.5 25.0 32.6 27.3 12.9 01.5		
23.2 23.3 23.4 23.5 23.6 24.1 24.2 24.3	Dinner Any other Never Which butter do you White butter Yellow butter Nutrilite butter	04 03 26 1 take in routine 34 15	03.7 32.1 ? 42.0 18.5 12.3	02 33 43 36 17	01.5 25.0 32.6 27.3 12.9		

25.1	Daily	10	12.3	13	09.8			
25.2	1-3 times a week	09	11.1	20	15.2			
25.3	Rarely	03	03.7	11	08.3			
25.4	Very rarely	06	07.4	19	14.4			
25.5	Never	52	64.2	70	53.0			
	Why do you diet?							
26.1	To look thinner and	20	24.7	42	31.8			
	beautiful							
26.2	To lose weight	09	11.1	30	22.7			
26.3	To please others	02	02.5	00	0.00			
26.4	Any other	10	12.3	05	03.8			
26.5	Not applicable	40	49.4	55	41.6			
	What techniques							
	have you tried for							
	dieting?							
27.1	Skipping a meal	01	01.2	09	06.8			
27.2	Avoiding fried	08	09.9	21	15.9			
	foods							
27.3	Avoiding junk	07	08.6	18	13.6			
	foods							
27.4	Doing regular	15	18.5	24	18.2			
	exercise							
27.5	Limiting food	04	04.9	10	07.6			
	intake							
27.6	Taking slim	01	01.2	00	0.00			
	medication							
27.7	Taking liquids only	00	0.00	01	00.8			
27.8	Other methods							
27.9	Combination	00	0.00	02	01.5			
27.10	Not applicable	45	55.5	50	37.9			
	How often have you been able to fulfill your goal of dieting?							
28.1	Always	14	17.3	14	10.6			
28.2	Often	00	0.00	04	03.0			
28.3	Sometimes	07	08.6	44	33.3			
28.4	Rarely / never	04	04.9	12	09.1			
28.5	Not applicable	54	66.6	57	43.2			
	Do you enjoy eating	along with you						
29.1	Yes	76	93.8	121	91.7			
29.2	No	04	04.9	11	08.3			
	When in school, do	you enjoy eating		do you eat alon	e?			
30.1	Eat with friends	76	93.8	129	97.7			
30.2	Eat alone	05	06.2	03	02.3			

Table 5 depicts the frequency and percentage distribution of dietary factors of school adolescents. The findings revealed that most of the male and female adolescents did not take coffee, tea, milk, juice and coco cola/aerated drinks (48), (81) and (35), (63) and (37), (65) and (36), (49) and (42), (58) daily. Maximum number of male (68) and female adolescents (113) had drunk water with meals. Majority of the male adolescents and female adolescents normally ate parantha for breakfast (55), (82) and ate breakfast before going to school (59), (64) respectively. Most of the male adolescents and female adolescents usually took fruits for sweet dish (33), (59) and did not skip meals in a week (45), (47) respectively. Majority of male adolescents and female adolescents always ate salad or vegetables with lunch (34) and (50) and with dinner (37) and (52) respectively. Most of the male adolescents (34) sometimes ate sweet dish with lunch whereas female adolescents (47) did not eat sweet dish with lunch. Majority of the male adolescents (27) and female adolescents (46) sometimes ate sweet dish with dinner. Most of the male adolescents (35) did not eat fast food in restaurants in a week as compared to female adolescents (51) did eat fast food in restaurants once a week. Majority of the male adolescents (52) and female adolescents (101) did not drink tea or coffee following dinner in a week. Majority of male adolescents (44) and female adolescents (50) did not skip meals in a week. Most of the male adolescents (33) did not skipped meal whereas female adolescents (52) skipped breakfast most frequently. Most of the male adolescents (30) did not substitute their meal with snacks in a week as compared to female adolescents (48) substituted their meal with snacks once a week. Majority of male adolescents (27) and female adolescents (50) usually took fried snacks. Majority of the male adolescents (44) and female adolescents (77) generally took snacks between breakfast and lunch. Majority of the male adolescents (31) and female adolescents (59) routinely used mustard oil for cooking at home. Most of the male adolescents (26) did not take pickle whereas female adolescents (41) took pickle with school lunch. Majority of the male adolescents (34) and female adolescents (43) took white butter in routine. Majority of the male adolescents (52) and female adolescents (70) were not in conscious diet effort to control their weight. Majority of the male adolescents (40)

and female adolescents (55) did not diet. Majority of the male adolescents (45) and female adolescents (50) never tried for dieting. Majority of the male adolescents (54) and female adolescents (57) were not able to fulfill goal of dieting. Most of the male adolescents (76) and female adolescents (121) enjoyed eating along with family. Most of the male adolescents (76) and female adolescents (129) enjoyed eating with friends.

Table 6: Frequency and Percentage Distribution of Life Style factors of School Adolescents N=213

Sr. No	Life Style Factors	Male		Female	
		Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%
l	How many hours do you w	atch television in	a day?		
1.1	No television watching	12	15.0	17	13.0
1.2	<3h per day	45	55.5	65	49.0
1.3	>3h per day	24	29.5	50	38.0
2	How many hours do you pl			1	1
2.1	No computer/video games	43	53.2	80	60.6
2.2	<3h per day	22	27.1	37	28.1
2.3	>3h per day	16	19.7	15	11.3
3	How much time do you spe			13	11.3
		13		16	12.1
3.1	None		16.0	16	12.1
3.2	<3h per day	42	51.8	63	47.7
3.3	>3h per day	26	32.2	53	40.2
4	How much time do you spe			T	T
4.1	No sitting activity	16	20.0	19	14.4
4.2	<3h per day	41	50.5	56	42.4
4.3	>3h per day	24	29.5	57	43.2
5	How often do you go to mo	rning walk in a w	eek?		
5.1	Daily	17	21.0	18	13.7
5.2	1-3 times in a week	15	18.5	25	18.8
5.3	4-6 times in a week	05	06.1	09	06.8
5.4	Rarely	22	27.2	35	26.6
5.5	Never	22	27.2	45	34.0
6	How often do you play the		21.2	73	34.0
6.1	Daily	36	44.4	31	23.5
	1-3 times in a week		23.4	15	
6.2		19		_	11.4
6.3	4-6 times in a week	05	06.3	02	01.5
6.4	Rarely	11	13.5	42	31.8
6.5	Never	10	12.4	42	31.8
7	How often do you go to gyr	n for exercise?			
7.1	Daily	07	08.6	07	05.3
7.2	1-3 times in a week	05	06.3	05	03.8
7.3	Very rarely	16	19.7	07	05.3
7.4	Never	53	65.4	113	85.6
8	How often do you help you		ehold activities?	1	
8.1	No	03	03.7	09	06.8
8.2	Sometimes	49	60.5	65	49.2
8.3	Frequent	29	35.8	58	44.0
9 9	How often do you eat food			36	44.0
				10	07.5
9.1	Once	09	11.1	10	07.5
9.2	Twice	08	10.0	14	10.6
9.3	Thrice	08	10.0	10	07.5
9.4	Four times	08	10.0	02	01.6
9.5	Five times	02	02.4	02	01.6
9.6	Daily	39	48.1	59	44.6
9.7	Never	07	08.4	35	26.5
10	How often do you eat food	while reading nev	vspaper in a week?		
10.1	Once	04	04.5	05	04.0
10.2	Twice	03	03.4	01	01.0
10.3	Thrice	02	02.4	02	01.6
10.4	Four times	00	00.0	00	00.0
10.4	Five times	01	01.2	00	00.0
10.6	Daily	04	04.5	06	04.4
10.7	Never	68	84.0	117	89.0
11	How many days were you	physically active	tor a total of at lea	st 60 minutes per	r day during last
	days?	T	Lina	T va	T
11.1	Once	10	12.2	19	14.3
11.2	Twice	05	06.1	15	11.3
11.3	Thrice	06	07.3	15	11.3
11.4	Four times	03	04.0	02	01.6
11.5	Five times	08	10.0	03	02.2

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11.6	Daily	24	29.4	29	22.0
11.7	Never	25	31.0	49	37.3
12	How many days are you phor usual week?	ysically active fo	r a total of at least (50 minutes per da	ny during a typical
12.1	Once	04	04.5	15	11.3
12.2	Twice	07	08.4	20	15.1
12.3	Thrice	10	12.2	13	10.0
12.4	Four times	03	04.0	04	03.2
12.5	Five times	09	11.1	03	02.2
12.6	Daily	16	19.8	31	27.4
12.7	Never	32	40.0	46	34.8

Table 6 depicts the frequency and percentage distribution of life style factors of school adolescents. The findings revealed that majority of male adolescents (45) and female adolescents (65) watched television less than 3 hour per day. Most of the male adolescents (43) and female adolescents (80) did not play computer/video games in a day. The majority of male adolescents (42) and female adolescents (63) spend < 3 hour per day in talking with friends. Mostly male adolescents (41) spend <3 hour per day in sitting activities while female adolescents (57) spend >3 hour per day in sitting activities. The majority of male adolescents (22) rarely or never went to morning walk in a week while female adolescents (45) never went to morning walk in a week. Maximum male adolescents (36) daily played the outdoor games whereas female adolescents (42) rarely or never played the outdoor games. None of male adolescents (53) and female adolescents (113) went to gym for exercise. Occasionally male adolescents (49) and female adolescents (59) ate food while watching television. None of male adolescents (68) and female adolescents (117) ate food while reading newspaper. Neither male adolescents nor female adolescents were physically active for a total of at least 60 minutes per day during last 7 days and during a typical or usual week (25), (49) and (32), (46) respectively.

IV. Discussion

The present study revealed the prevalence of overweight and obesity in male and female school adolescent were (4%) and (9.0%); (2.4%) and (0.8%) respectively. The findings were consistent with Bhargava, Kandpal, Aggarwal, and Sati (2016)who conducted a study to assess the prevalence of overweight and obesity in urban private schools on 1266 children aged between 6-17 years. Their findings revealed that the prevalence of overweight was 15.6% of which 5.4% were obese, with maximum prevalence in boys attending urban private school The findings were also consistent with Pawar and Choksey (2016)who conducted a study to find out the prevalence of overweight and obesity among students in four schools on 828 students (590 were girls and 1238 were boys). The findings revealed that the prevalence of overweight and obesity by cole et al., criteria, were 11.3% and 3.3% and by Khadilkar et al., criteria were 17.5% and 7.8% respectively

The present study revealed that theoverall prevalence of overweight was higher in female adolescents as compared to male adolescents whereas the overall prevalence of obesity was higher in male adolescents as compared to female adolescents. The findings were consistent with Khadilkar and Cole (2011)who conducted a study to assess the prevalence of overweight and obesity in apparently healthy children in eleven affluent urban and rural private schools on 20243 children aged between 2 and 17 years. The findings revealed that the prevalence of overweight and obesity was 18.2% by the IOTF classification and 23.9% by the WHO standards. The prevalence of overweight and obesity was higher in boys than girls.

References

- [1]. AA Zayed, AM Beano, FI Haddadin, SS Radwan, SA Allauzy, MM Alkhayyat, ZA Al-Dahabrah, YG Al-Hasan, and AF Yousef, Prevalence of short stature, underweight, overweight, and obesity among school children in Jordan.BMC Public Health. 16 (1), 2016, 1040.
- [2]. RK Anuradha, RB Sathyavathi, TM Reddy, R Hemalatha, G Sudhakar, P Geetha, and KK Reddy, Effect of social and environmental determinants on overweight and obesity prevalence in adolescent children, Indian Journal of Endocrinology and Metabolism, 19(2), 2015, 283-7.
- [3]. M Bhargava, SD Kandpal, P Aggarwal, HC Sati, Overweight and Obesity in School Children of A Hill State In North India: Is the Dichotomy Urban-Rural or Socio-Economic? Results from a Cross-Sectional Survey, PLoS One, 11 (5), 2016, 26.
- [4]. SV Pawar, AS Choksey, SS Jain, RG Surude, and PM Rathi, Prevalence of Overweight and Obesity in Schools of South Mumbai, Journal of Clinical and Diagnostic Research: JCDR,10(3), 2016, 2.
- [5]. VV Khadilkar, AV Khadilkar, TJ Cole, SA Chiplonkar, and D Pandit, Overweight and obesity prevalence and body mass index trends in Indian children, International Journal of Pediatric Obesity: IJPO: an official journal of the international association for the study of obesity, 6(2-2), 2011, 216-24.

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