



## Childhood Overweight Obesity And Associated Factors Among Urban Children In Auranagabad A Cross Sectional Study.

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### ABSTRACT

**Background-** Obesity in increasing global threat for many diseases and disorders.

**Objectives-** Objective of this study were to identify the associated risk factors in the study population and to assess the relationship with the risk factors.

**Methods-** This was the cross-sectional survey conducted using random sampling tech.in Aurangabad city. A total of 200 obese children studied. Dietary habits and lack of exercise, lifestyle factors was determined using questionnaire methods, BMI, MUAC tape. After successful evaluation of subjects, some dietary changes, lifestyle changes, regular 45 minutes of exercise is suggested and taken. results were taken after 15 days of regular session.

**Results** – In this present study it was noted that the 58% were male and 41% were female almost 97% children's were come to school by vehicle. The frequency of junk food is higher than vegetables, fruits. This leads to obesity in children. In our study focus on the on lifestyle intervention plan for children's it was shown that the positive effect on improved participants dietary pattern and was effective in reducing excess weight programme was conducted for 30 days including with physical activity and nutritional counselling on obese adolescents and found a reduction in body weight.

**Conclusion** - It concludes a higher prevalence of obesity among study subjects. It is implemented that decreased fast foods, having regular exercise, eating fiber, complex carbs, and essential fats are important to prevent obesity for better performance in study, for stronger immunity and better life style.

**Key words:** Children's, Overweight, Obesity, Associated factors, Lifestyle intervention

### INTRODUCTION:

An excessive quantity of body fat is a component of the complicated condition known as obesity. Being obese is more than simply a visual issue. It is a medical condition that raises your risk of developing further illnesses and conditions, including high blood pressure, diabetes, heart disease, and several types of cancer. The good news is that obesity-related health issues can be avoided or improved with even a small amount of weight loss. You can reduce weight by altering your diet, increasing your physical activity, and changing your behaviour. Other choices for managing obesity include prescription drugs and weight-loss techniques.

The long-term effects of childhood obesity pose a serious threat to public health both globally [1] and domestically [2–3]. It is well known that multi-sectoral approaches, including "incentives and disincentives, regulatory and fiscal measures, laws and other policy options, and health education," are necessary to treat childhood obesity [4]. In instance, regulatory measures have proven to be beneficial in controlling infectious diseases, preventing injuries, and controlling tobacco use. They can also be used to improve environmental and occupational safety, protect vulnerable populations, and change health-related behaviours.

If nutritious meals are not easily accessible or reasonably priced, nutrition literacy and understanding of good food choices cannot be put into practice. A cooperative approach to food production, processing, accessibility, availability, and affordability is necessary to influence the food environment. Ultra-processed foods are typically the only reasonably priced options when access to healthful foods is limited. Numerous initiatives have been launched by the public and private sectors to encourage healthier eating habits, and the scant data suggests that these activities may help consumers make better decisions.[5]

### OBJECTIVE OF THE STUDY

Finding the related risk variables in the study population and evaluating the link between the risk factors were the study's goals.

1. To determine the prevalence of childhood obesity in urban school of age 6 to 12 old children
2. To assess the associates factors of childhood obesity.

3. To reduce the risk of childhood obesity with nutrition reduction programme recreation.
4. To develop and standardised the vita-pro powder for weight loss.
5. To determine the physiochemical analysis and sensory analysis for nutritive value and shelf life.

#### **SPECIFIC OBJECTIVE**

1. To investigate the prevalence of obesity among children in Aurangabad.
2. To assess the outcome of those children after dietary and physical activity.
3. To improve school performance, physical fitness for lifetime.

#### **MATERIAL AND METHEDS:**

##### **Research approach**

Research approach in this study was descriptive exploratory survey. In this study the descriptive research was conducted on children from age 6-12 group in Aurangabad city. Approach to choose this subject was concerned with study of obesity and related disorders. Various children were assessed with high, low, normal obesity.

##### **Research design**

It is descriptive explanatory survey. Research design was framed to access the prevalence of obesity, obesity related physical strength, mental development from the age group 6-12 yrs, and impact of lifestyle changes to recover the disease. In this study a self-formulated structural questionnaire was used to identify the factors associated with increasing grade of obesity and dietary habits were noted down.

##### **Variables of the study**

Age  
Height  
Weight  
BMI  
MUAC

##### **Selection of sample**

Selection of samples was based on the grades of obesity as well and consideration of other anthropometric measures.

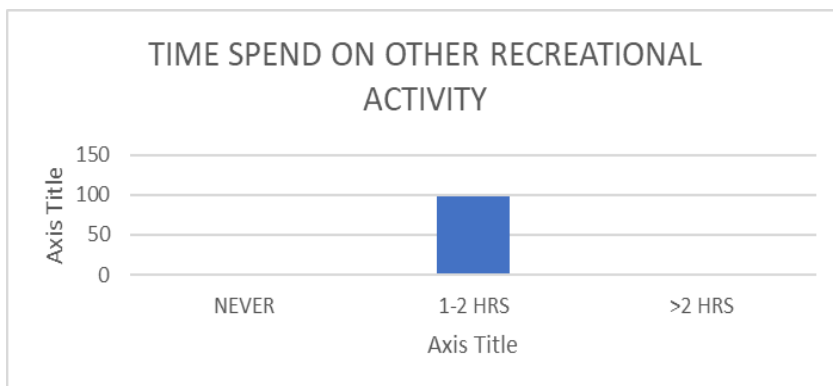
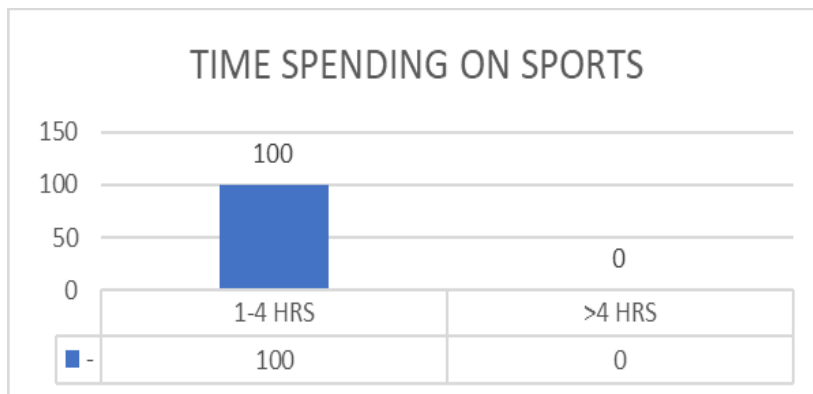
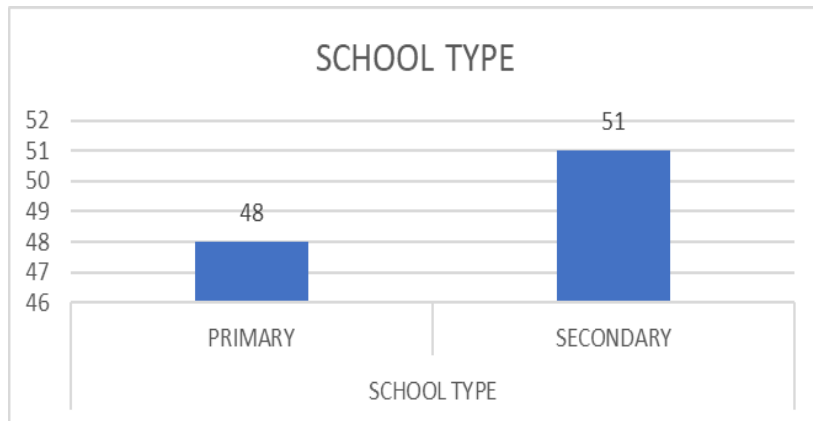
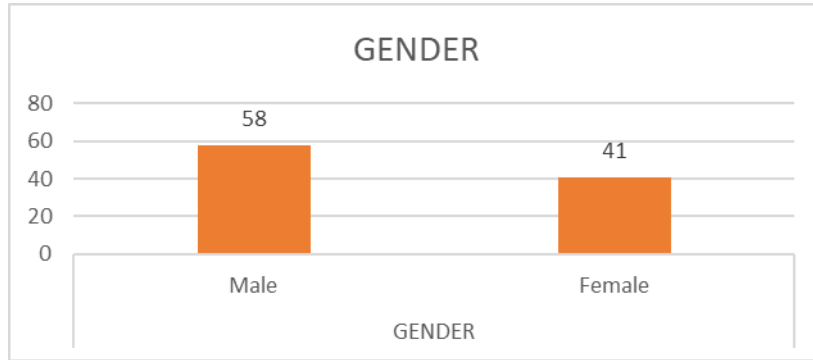
#### **RESULT AND DISCUSSION:**

**TABLE 4.1. DESCRIPTIVE CHARACTERISTICS OF THE STUDY GROUP.(N= 307)**

<b>PARAMETERS</b>	<b>CHARACTERISTICS</b>	<b>N</b>	<b>%</b>
<b>1.GENDER</b>	<b>Male</b>	<b>179</b>	<b>58</b>
	<b>Female</b>	<b>128</b>	<b>41</b>
<b>2. SCHOOL TYPE</b>	<b>PRIMARY</b>	<b>150</b>	<b>48</b>
	<b>SECONDARY</b>	<b>157</b>	<b>51</b>
<b>3.SCHOOL ACCESS</b>	<b>BY WALK</b>	<b>07</b>	<b>2.2</b>
	<b>BY CYCLE</b>	<b>-</b>	
	<b>BY VEHICLE</b>	<b>300</b>	<b>97</b>
<b>4.TIME SPENDING ON SPORTS</b>	<b>NEVER</b>	<b>-</b>	<b>-</b>
	<b>1-4 HRS</b>	<b>307</b>	<b>100</b>
	<b>&gt;4 HRS</b>	<b>-</b>	<b>-</b>
<b>5.TIME SPEND ON OTHER RECREATIONAL ACTIVITY</b>	<b>NEVER</b>	<b>6</b>	<b>1.95</b>
	<b>1-2 HRS</b>	<b>301</b>	<b>98</b>
	<b>&gt;2 HRS</b>	<b>-</b>	<b>-</b>

The table 4.1 shows that descriptive characteristics of the subjects it was noted that the 58% were male and 41% were female almost 97% children's were come to school by vehicle. All the children's were spent 1-4 hours for sports and 98% children's were 1-2 hours spend their time for other recreational activities.

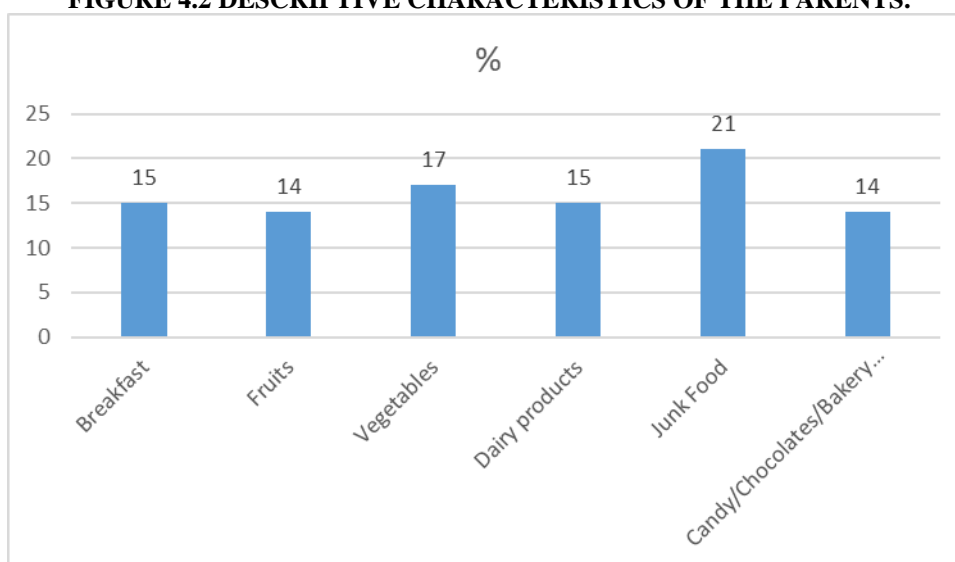
**Demographic representation**



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CHARACTERISTICS		SEVERE THINNESS OR THINNESS	NORMAL	OVER WEIGHT/OBESE	N	%	X <sup>2</sup>	P
<b>BREAKFAST</b>	1	20			49	15		
	2			12				
	3		17					
	4							
<b>FRUITS</b>	1	19			45	14		
	2		14	12				
	3							
	4							
<b>VEGETABLES</b>	1				53	17		
	2	11						
	3							
	4		28	14				
<b>DAIRY PRODUCTS</b>	1				49	15		
	2	20						
	3		16	13				
	4							
<b>JUNK FOODS</b>	1				66	21		
	2							
	3		13					
	4	09		44				
<b>CANDY, CHOCOLATES, BAKERY ITEMS</b>	1				45	14		
	2	21	12					
	3							
	4			12				

FIGURE 4.2 DESCRIPTIVE CHARACTERISTICS OF THE PARENTS.



In children assessment from questions related to food habit and pattern asked to the parents to know the food culture of that children . This food frequency graph indicates that the frequency of junk food is higher than vegetables, fruits. This leads to obesity in children.

TABLE 4.3 POST NUTRITIONAL EDUCATION CATEGORIES

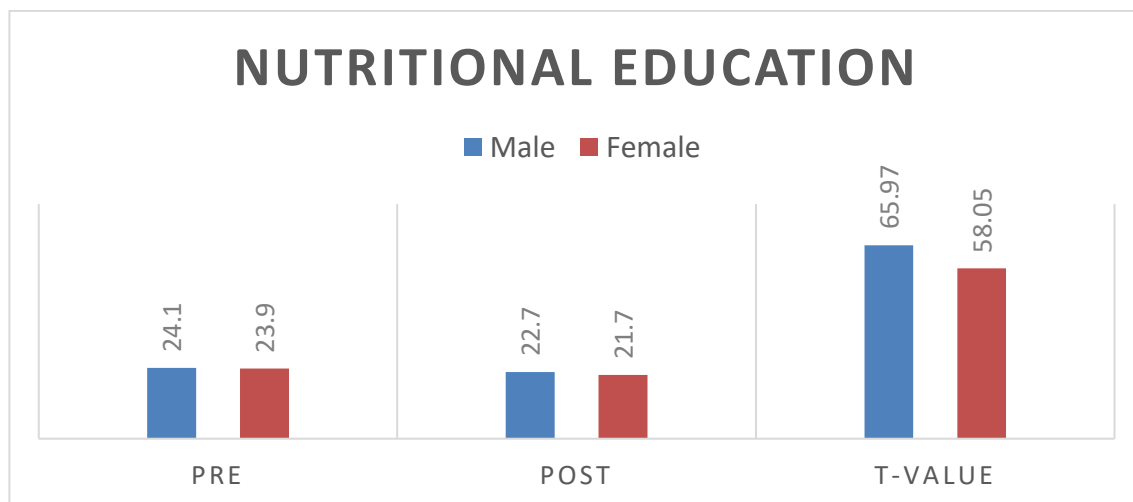
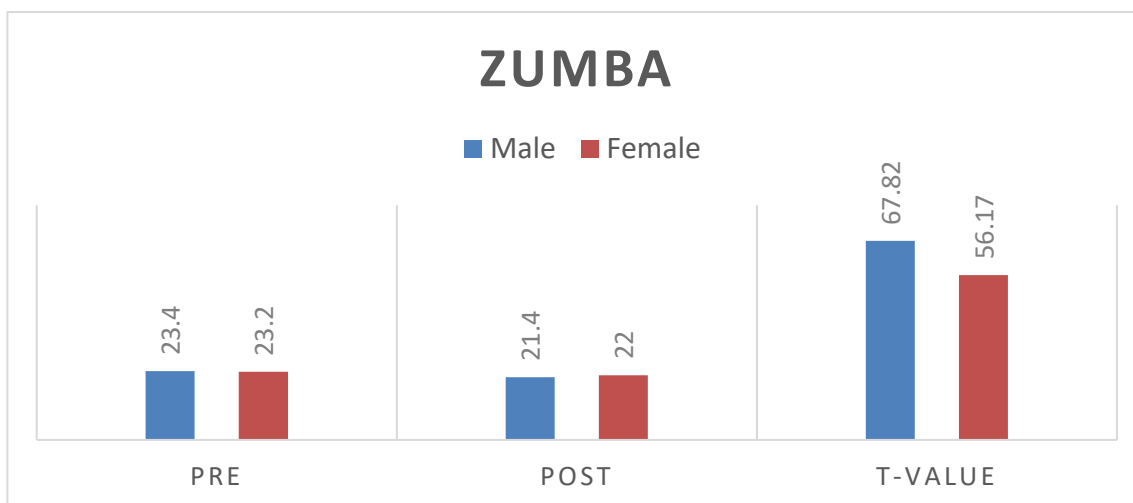
ACTIVITY PREFERRED	DURATION
1) ZUMBA	45 MIN./DAY-30 DAYS
2)DIETARY GUIDELINES	DO'S / DONT

**TABLE 4.4 PRE AND POST RECREATION AND NUTRITION EDUCATION CHANGES IN WEIGHT**

SEX	ACTIVITY (30 DAYS)					
	ZUMBA			NUTRITION EDUCATION		
	PRE	POST	T ALUE	PRE	POST	T VALUE
MALE	23.4	21.4	67.82	24.1	22.7	65.97
FEMALE	23.2	22.0	56.17	23.9	21.	58.05

- Significant at 0.5%

In our study focus on the on lifestyle intervention plan for children’s it was shown that the positive effect on improved participants dietary pattern and was effective in reducing excess weight programme was conducted for 30 days including with physical activity and nutritional counselling on obese adolescents and found a reduction in body weight. There is a significant difference between the recreational activity and nutrition education on weight reduction.



**TABLE 4.5 PROXIMATE ANALYSIS OF VITA PRO POWDER**

Nutrient	content
Energy	329.55
Protein%	9
Fat%	4.99
Carbohydrate%	62.15
Moisture%	7.22
Ash%	4.4

**Table 4.5** stated that vita pro powder was formulated and standardized by researcher and it was find that the nutritionally it may be fulfil the needs of children’s to complete their nutritional need after workout with milk or water as a supplement enrich with nutrients and hydrator.

### CONCLUSION:

Given that the BMI percentile in this population was much lower than in the control group at the end of the trial, we may conclude that the nutritional status of the intervention programme participants had improved. Furthermore, there was a noticeable enhancement in the IG's physical fitness and activity routine. In the population under study, the intervention programme was successful in preventing and lowering overweight and obesity.

Given that the BMI percentile in this population was much lower than in the control group at the end of the trial, we may conclude that the nutritional status of the intervention programme participants had improved. Furthermore, there was a noticeable enhancement in the IG's physical fitness and activity routine. In the population under study, the intervention programme was successful in preventing and lowering overweight and obesity. Given that the BMI percentile in this population was much lower than in the control group at the end of the trial, we may conclude that the nutritional status of the intervention programme participants had improved.

Furthermore, an enhancement in the IG's physical condition and exercise regimen was noted. In the population under study, the intervention programme was successful in preventing and lowering overweight and obesity. Given that the BMI percentile in this population was much lower than in the control group at the end of the trial, we may conclude that the nutritional status of the intervention programme participants had improved. Furthermore, there was a noticeable enhancement in the IG's physical fitness and activity routine. In the population under study, the intervention programme was successful in preventing and lowering overweight and obesity.

This study investigated whether school-based intervention programmes, like "healthy nutrition and active lifestyle," would enhance students' physical and nutritional habits and prevent or lessen obesity. By the time this study ended, several overweight and obese students—particularly those who were female—had avoided becoming overweight and obese and had returned to a normal weight thanks to their knowledge about diet and physical activity. The bulk of the variables pertaining to physical activity and nutrition were found to be positively accepted in the intervention group. One of the main things that leads to the development of childhood obesity is physical inactivity.

Reducing sedentary behaviour and increasing physical activity are the solutions to the issue of physical inactivity. It would be unrealistic to expect lean children to work at the same workload as obese children, hence obese children need specialised exercise programmes. Rather than focusing on improving cardiovascular fitness, an exercise programme for obese children should be tailored to boost calorie expenditure. The amount of time the youngster spends engaging in a moderate activity should take precedence over the activity's intensity. As a result, time rather than distance should determine how much labour is done. The ultimate goal should be lifetime physical activity because the benefits of regular physical activity are only sustained while the child is exercising.

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