

**“A DESCRIPTIVE STUDY TO ASSESS THE PREVALENCE OF OBESITY AND OVERWEIGHT AND ITS INFLUENCING FACTORS AMONG COMMUNITY PEOPLE IN A SELECTED URBAN COMMUNITY OF METROPOLITAN CITY, MAHARASHTRA.”**



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### INTRODUCTION

According to the World Health Organization (WHO), obesity is one of the most common, yet among the most neglected, public health problems in developing countries. According to the WHO World Health Statistics Report 2012, globally one in six adults is obese and nearly 2.8 million individuals die each year due to overweight or obesity.

Obesity is one of the important risk factors for non-communicable diseases. In 2013, obesity was classified as a disease by the American Medical Association. The World Health Organization reported that the principal reason for this excess weight problem is an energy imbalance between calories consumed and calories expended. Increasing intake of foods high in energy and decreasing level of physical activity due to increasing urbanization, changing modes of transportation and sedentary working environments account for this energy balance.

Over the past two decades there has been a dramatic rise in the prevalence of

obesity throughout the world. India is facing the rapid rise in generalized and abdominal obesity among adolescents and adults. Obesity is one of the major modifiable factor for non-communicable diseases in India. Increased consumption of junk food, sedentary lifestyle, consumption of alcohol and smoking, inadequate exercise regimen are some of the predisposing factors for obesity.

The present study aims to identify the prevalence of generalized and abdominal obesity among selected urban community people and identifying the influencing factors for the same.

### OBJECTIVES

Assess the prevalence of obesity and overweight among community people.

Assess the factors influencing obesity and overweight among community people.

### METHODOLOGY

The study was a *cross-sectional study* using a *structured questionnaire* and physical measurements of height and

weight. Total 100 community people as a study subjects participated in the study from a selected urban community of metropolitan city of Maharashtra. Non-probability convenient sampling technique used for the study subject's selection. Techniques used for data collection was structured face to face interview and biophysical measurements.

Research tool consisted of

**Section A:** Demographic profile

**Section B:** is anthropometric measurement (weight, height, BMI, abdominal girth, waist circumference, hip circumference and waist to hip ratio)

**Section C:** consisted of questionnaire on nutritional and physical activity pattern.

**Anthropometric measurement:** Height and weight were measured using standardized protocols. Weight was measured without shoes single previously standardized portable weighing scale. Height was measured without shoes and recorded to measuring tape fixed on a wall. The body mass index (BMI) of each subject was calculated as weight in kilograms divided by height in metres squared.

## RESULTS

### Definitions

Generalized obesity (GO) was defined as a BMI  $\geq 25$  kg/m<sup>2</sup> for both genders with or without abdominal obesity (AO).

Abdominal obesity (AO) was defined as a waist circumference (WC)  $\geq 90$  cm for men and  $\geq 80$  cm for women with or without GO.

In the study the subjects generalized obesity was assessed by calculating Body

Mass Index (BMI), the following table shows the distribution of the subjects according to the levels of BMI. Abdominal obesity of the subjects was assessed with waist circumference parameter.

Table 3.1: BMI wise distribution of the subjects

N=100

Sr. No.	BMI (kg/m <sup>2</sup> )	Frequency
1	Under weight (less than 18.5)	6
2	Normal weight (18.5 to 24.9)	46
3	Overweight (25 to 29.9)	20
4	Obesity (more than 30)	28

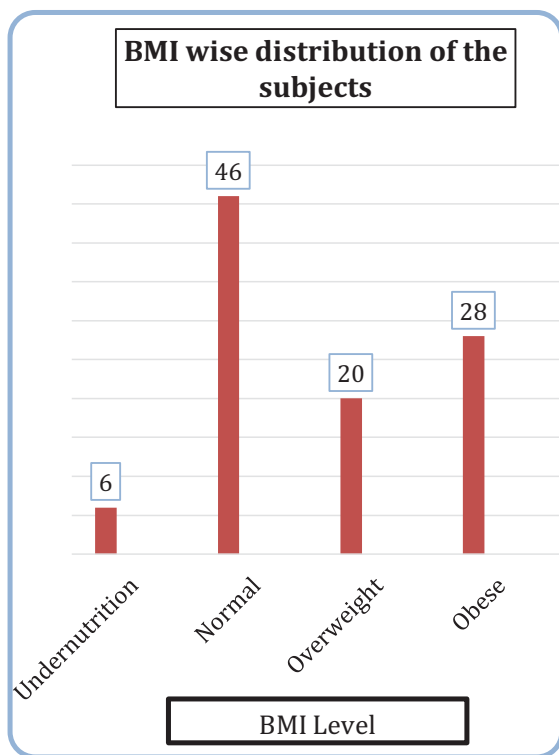


Figure 3.1: bar diagram showing BMI wise distribution of the subjects

Data presented in the table 3.1 illustrates that the 48% of the study subjects have BMI > 25 kg/m<sup>2</sup> i.e. overweight and obesity depicting the generalized obesity.

Table 3.2: distribution of subject with regard to waist circumference

N=100

Sr. No.	Waist circumference	Frequency	%
1.	Normal	56	56%
	Men < 90cm (20) Women < 80cm (36)		
2.	High	44	44%
	Men ≥ 90 cm (6) Women ≥ 80 cm (38)		

Table 3.2, shows the 44% of the study subjects have waist circumference more than a normal range depicting the abdominal obesity.

Table 3.3: distribution of subject with regard to waist to hip ratio.

N=100

Waist to hip ratio		n	Total frequency
Normal	Men (<0.90)	24	52
	Women (<0.80)	28	
Average	Men (0.90-0.95)	2	22
	Women (0.80-0.85)	20	
High	Men (0.95-1.00)	0	12
	Women (0.85-0.90)	12	
Extreme	Men (>1.00)	0	14
	Women (>0.90)	14	

Data presented in the table illustrates that 26% of the study subjects have high waist hip ratio which is peculiar indicator of abdominal obesity

Food frequency chart was administered to the study subjects to assess their practice on consumption of junk foods and the nutritive foods.

Table 3.4: frequency of selected foods consumption by the subjects

N=100

Food items	Always	Often	Sometimes	Never
	f/ %	f/ %	f/ %	f/ %
Fruits	38	46	6	10
Vegetables	66	18	12	4
Fried food	4	48	32	16
Restaurant food	2	30	34	34
Street food	4	40	22	34
Meat products	2	54	16	28
Milk and milk products	30	46	8	16
Sweets	6	50	24	20
Junk food	2	36	24	38
Cold drinks	1	41	16	42

The above data shows that, 48% subjects often consume fried food, 40% subjects often consume street food, 50% subjects often consume sweets, 36% subjects often consume junk food and 41% subjects often consume cold drinks depicting the often consumption of nonnutritive junk food.

Table 3.5: frequency chart of exercise regimen practiced among the study subjects

N=100

Exercises	Never		1 to 2 times a week		2 to 3 times a week		Daily	
	f	%	f	%	f	%	f	%
	Walking	30	30	32	32	4	4	34
Jogging	84	84	10	10	0	0	6	6
Running	86	86	8	8	4	4	2	2
Skipping	94	94	2	2	2	2	2	2
Yoga	90	90	8	8	0	0	2	2
Stretching	88	88	6	6	0	0	6	6
Others	92	92	6	6	0	0	2	2

The data presented in the above tables shows the inadequate physical exercise pattern, more than 80 % of the subjects never practice exercise other than walking.

#### DISCUSSION

The study reveals that the 44% of the subjects have abdominal obesity with reference of waist circumference, 48% of the subjects have BMI > 25kg/m<sup>2</sup>, and 26% of the subjects have shown waist hip ratio. This data shows the presentation of both generalized and abdominal obesity feature in the study subjects. The study subjects have also reported the consumption of junk food, inadequate physical activity, which are the important predisposing factors for overweight.

The risk factors of today leads to the diseases of tomorrow. Identifying these risk factors in populations occupies a central place in the surveillance system because of the importance of lag time between exposure and disease.

Therefore, public health strategies have to be driven by the motive of reducing the predisposing factors of overweight and obesity.

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#### CONCLUSION

The study revealed prevalence of overweight and obesity among the community people. Therefore, there is a need to establish effective prevention and health promotion programmes in the community. This would enable maintaining healthy weights and avoiding the possible immediate and long-term health complications associated with overweight and obesity.

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