

FACTORS AFFECTING PREVALENCE OF OBESITY AMONG THE WOMEN

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ABSTRACT

Prevalence of obesity among the women was studied and calculated body mass index of the women to assess their obesity according to certain selected variables. This study was conducted in the urban area of Lucknow district on the 400 women aged 20 - 50 years which were selected through multistage stratified random sampling technique. The prevalence rate of obesity was found to be 9.50% among the selected women in the present study. The prevalence rate of obesity among the women aged 35 - 50 years was significantly more while insignificantly more among the working women, belonged to nuclear families and having family monthly income of below Rs. 25000 as compared to women of their counterparts. The prevalence rates of obesity were insignificantly more among the vegetarian women, skipped food and watching television during taken food as compared to women of their counterparts. The prevalence rates of obesity among the women doing sitting activity was significantly more while insignificantly more among the women doing exercise and not watching television as compared to women of their counterparts in the present study.

Keywords: Obesity, prevalence, food habits, factors of obesity.

INTRODUCTION

Obesity is one of the most common and neglected public health problems in both developed and developing countries. The globally one in six adults are obese and nearly 2.8 million individuals dies each year due to overweight or obesity. Due to increased risk of morbidity and mortality, obesity is now being recognized as a disease in its own right. Additionally, obesity is strongly associated with other metabolic disorders including diabetes, hypertension, dyslipidaemia, cardiovascular disease and even some cancers. Individuals with obesity have higher rates of mortality and morbidity compared to non obese individuals.

According to the **American Heart Association**, Obesity is a major risk factor for developing coronary heart disease, which can lead to heart attack or stroke. People who are overweight are at a greater risk of suffering from heart attack before the age of 45 and obese adolescents have a greater chance of having heart attack before the age of 35 than non-obese adolescents.

OBJECTIVE

To study the factors affecting prevalence of obesity among the women.

METHODOLOGY

Four hundred women aged 20-50 years in the urban area of Lucknow district were selected through multistage stratified random sampling technique and were interviewed by the researcher herself for getting the required information.

TOOLS OF THE STUDY

A self constructed tool developed by the investigator with the help of supervisor and expert of the subject was used to assess the obesity among selected women in the present study

RESULTS AND DISCUSSION

The collected data were analysed, discussed and presented in the following tables:

Table - 1: To study the effect of socio-economic variables on the obesity of the selected women

Variable	Category	Women	Obesity	Prevalence Rate	Statistical values		
		No.	No.	%	χ^2	df	p
Age in Years	20 - 35	253	18	7.11	4.563	1	<0.05
	35 - 50	147	20	13.61			
Occupation	Working	92	9	9.78	0.011	1	>0.05
	Non-working	308	29	4.42			
Family Type	Nuclear	251	25	9.96	0.166	1	>0.05
	Joint	149	13	8.72			
Family Monthly Income in Rs.	Below 25000	229	25	10.92	1.255	2	>0.05
	25000 - 50000	127	12	9.45			
	50000 & Above	44	1	2.27			
Total		400	38	9.50			

The prevalence rate of obesity was found to be 9.50% among the selected women in the present study. According to age, the prevalence rate of obesity among the women aged 35 - 50 years (13.61%) was significantly more as compared to women aged 20 - 35 years (7.11%). According to occupation, the prevalence rate of obesity among the working women was insignificantly more (9.78%) as compared to non-working women (9.42%). According to family type, the prevalence rate of obesity among the women belonged to nuclear family (9.96%) was insignificantly more as compared to women belonged to joint family (8.72%). According to family monthly income, the prevalence rate of obesity among the women having family monthly income of below Rs. 25000 was more (10.92%) as compared to women having family monthly income of Rs. 25000 - 50000 (9.45%) and women having family monthly income of Rs. 50000 and above (2.27%). Statistically, no significant difference regarding prevalence rates

of obesity was observed between the women according to family monthly income ($\chi^2 = 1.255$, df = 2, p > 0.05).

Thus, it can be concluded that age of the women effected the prevalence rate of obesity as the prevalence rate of obesity were more or less similar according to occupation, family type and family monthly income of the women. Study conducted by **American Heart Association** found that obese adolescents have a greater chance of having heart attack before the age of 35 than non-obese adolescents. **Hall John et.al.** (2015) and **Gothankar Jaishree et.al.** (2011) reveal that the prevalence of obesity was 53.4% and 43.00% respectively which was slightly more as compared to finding of the present study. The study conducted by **American Heart Association** supported the finding of the present study that lower age people have low chances

of heart attack as compared to old age people. **Sharma K.S. et.al.** (2017) and **Jaideep Sen et.al.** (2013) found in their study a significant association between age, occupation, family type and monthly income with prevalence of obesity in their study. **Venkatrao M.et.al.** (2020) found in their study that obesity in India was 40.3% with highest in south zone (46.51%) and lowest in east zone (44.17%). They further stated that obesity was more among people aged 40 years (45.81%) as compared to people aged below 40 years (34.58%). **Verma et.al.** (2021) also reported in their study age is significantly associated with obesity. **Sen, Sinha and Mondal** (2018) found the significant effect of age, occupation and monthly income of the respondents on their obesity. **Ramanathan Parimalavalli, A. Vijayalakshmi and S. Radhai Sri** (2008) found that 65.00% women were obese and significant effect of age, family type and monthly income of the respondents were found on their obesity.

Table - 2: To study the effect of food habits on the obesity of the selected women

Variable	Category	Women	Obesity	Prevalence Rate	Statistical values		
		No.	No.	%	χ^2	df	P
Type of Food	Vegetarian	204	20	9.80	0.044	1	>0.05
	Non-vegetarian	196	18	9.18			
Meals Per day	2 - 3	264	4	1.52	7.582	1	<0.05
	4 - 5	136	34	25			
Food Skipped	Yes	221	25	11.31	1.886	1	>0.05
	No	179	13	7.26			
Food with Watching TV	Yes	209	22	10.52	0.802	1	>0.05
	No	191	16	8.37			
Total		400	38	9.50			

The effect of food habits on the prevalence rates of obesity among the selected women were calculated, analysed and presented in the above table - 2. The prevalence rate of obesity among the vegetarian women (9.80%) was insignificantly more as compared to non-vegetarian women (9.18%). According to Took meals per day, the prevalence rate of obesity among the women having 2-3 meals per day was significantly less (1.52%) as compared to women having 4-5 meals per day (25%). According to skipped food, the prevalence rate of obesity among the women skipped food was insignificantly more (11.31%) as compared to women didn't skip food (7.26%). Further, regarding watching television during taken food, the prevalence rate of obesity among the women watching television during taken food was slightly more (10.52%) as compared to women did not take food with watching television (8.37%).

Thus, it can be concluded that prevalence rates obesity of the women were more or less similar according to food habits, number of meals taken per day, skip food and watching television during taken food in the present study. **Sharma K.S. et.al.** (2017) found significant association between intake of calories and physical activity with prevalence of obesity in their study. **Upasana and Archana** (2015) found that obesity increases with rapid change in diet.

Table - 3: To study the effect of physical activity on the obesity of the selected women

Variable	Category	Women	Obesity	Prevalence Rate	Statistical values		
		No.	No.	%	χ^2	df	P
Activity	Sitting	96	14	14.58	3.855	1	<0.05
	Standing	83	6	7.23			
	Walking	221	18	8.14			
Type of Work	Sedentary	276	28	10.14	1.177	2	<0.05
	Moderate	90	6	6.67			
	Heavy	34	4	11.76			
Exercise	Yes	260	28	10.77	1.392	1	>0.05
	No	140	10	7.14			
Watching TV	Yes	347	31	8.93	0.973	1	>0.05
	No	53	7	13.21			
Total		400	38	9.50			

Above table - 3 reveals the prevalence rate of obesity among the selected women according to physical activity. Out of the total women, the prevalence rate of obesity among the women doing sitting activity was more (14.58%), followed by 8.14% walking activity and the prevalence rate of obesity among the women doing standing activity was less (7.23%). Analysis of the data shows that significant difference regarding the prevalence rate of obesity was

observed according to activity of the women ($\chi^2 = 3.855$, $df=1$, $p<0.05$). **Upasana and Archana** (2015) found that obesity increases with lack of physical activity.

According to type of work, the prevalence rate of obesity among the women doing heavy work was more (11.76%), followed by 10.14% doing sedentary work and the minimum among the women doing moderate work (6.67%). According to exercise, the prevalence rate of obesity among the women doing exercise was less (10.77%) as compared to women not doing exercise (7.14%). Further, according to watching television, the prevalence rate of obesity among the women watching television was less (8.93%) as compared to women did not watch television (13.21%). Analysis of the data reveals that no significant difference regarding the prevalence rates of obesity were observed according to type of work, doing exercise and watching television ($p>0.05$).

Bhawin N.B. et.al. (2010) conducted a study on obesity and influence of dietary factors on weight status of adults in Jamnagar City, Gujrat and found that the total calories intake and habit of snacking had a positive association with weight gain.

CONCLUSION

The prevalence rate of obesity was found to be 39.50% among the selected women in the present study. The prevalence rate of obesity among the women aged 35 - 50 years and doing sitting activity, having 4-5 meals per day, doing sedentary work, were significantly more while insignificantly more among the working women, belonged to nuclear families, having family monthly income of below Rs. 25000, vegetarian women, skipped food, watching television during taken food, doing exercise and not watching television as compared to women of their counterparts in the present study.

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