STUDY OF LIFE STYLE, DIETARY PATTERN AND BMI OF YOUNG WOMEN AGED BETWEEN 20-40 YEARS

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Article Info: Received 4 February 2019; Accepted 28 February. 2019

Cite this article as: Sharma, P., & Berad, A. (2019). STUDY OF LIFE STYLE, DIETARY PATTERN AND BMI OF YOUNG WOMEN AGED BETWEEN 20-40 YEARS. *International Journal of Medical and Biomedical Studies*, 3(2).

DOI: <https://doi.org/10.32553/ijmbs.v3i2.126>

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Conflict of interest: No conflict of interest.

Abstract

Obesity is increasing at an alarming rate throughout the world and has become a global problem. The World Health Organisation (WHO) has declared overweight as one of the top 10 health risks in the world and one of the top five in developed nations (WHO, 2002) In many developing countries, with increasing urbanization, mechanization of jobs and transportation, availability of processed and fast foods, and dependence on television for leisure, people are fast adopting less physically active lifestyles and consuming more “energy-dense, nutrient-poor” diets. The objective of the study was to investigate the prevalence of overweight issues and obesity by recording the body mass index (BMI) and explore the dietary habits, physical activities (PAs), and lifestyles of females between 20-40 years of age. Questionnaire was used in this study for data collection about general information, body mass index, dietary habits and Lifestyle of 20 female subjects. It was observed that 3 females were underweight, 9 were normal weight and 8 were overweight and obese. From the results of the study, we can conclude that the incidence of being overweight and obese is increasing. The awareness about Physical activities healthy diet/lifestyle, and consequences of overweight and obesity on their health and profession must be increased among the young females to avoid future complications.

Key words: Body Mass index, lifestyle, dietary habits, Physical activity

Introduction:

Obesity is the leading non-communicable disease pandemic of the post-industrialization and ongoing digital revolution period. Recent trend analysis (1975-2016) showed an increasing trend in

the prevalence of overweight and obesity among adults, adolescents and children across the world [1] with an estimated obesity cases of 670 million adults and 124 million young people aged 5-19

years in 2016 [1]. Despite of these high estimates, critiques still argued that the figures might have been much higher if different diagnostic criteria for overweight and obesity other than body mass index (BMI) were used [2,3]. With rapidly mushrooming and poorly planned urban centers, improving economic prospects and ongoing nutrition transition, Indians are experiencing an upsurge in the prevalence of overweight and obesity, especially among women of reproductive age [4, 5] Being

overweight and obesity are defined as abnormal or excessive fat accumulation that may impair health. It is the most common nutritional disorder in developed countries and its percentage is increasing in the developing countries also.[6,7] Being overweight and obese can lead to adverse metabolic changes, including increases in blood pressure, unfavorable cholesterol levels, and increased insulin resistance. They raise the risk of coronary heart diseases, stroke, type II diabetes, atherosclerosis, gallbladder disease, hypertension, kidney failure, and many forms of cancers, particularly breast cancer. It has become one of the most serious public health challenges of the 21st century.[8,9] An unhealthy diet is a major modifiable behavioural risk factor in the development of obesity. Although a variety of dietary recommendations for the management and prevention of obesity have been proposed, evidence is inconsistent and varies between measures of dietary intake used. Furthermore, the role of diet in obesity associated health disorders is an important consideration for the development of dietary guidelines. Physical inactivity ultimately leading to overweight condition and obesity is also a leading risk factor for the global deaths. The benefits of regular physical PA have been clearly set out across the lifespan. A strong body of evidence, comprising both observational and experimental research, indicates that regular participation in PA among young people provides immediate and long-term benefits for physical and psychological

well-being.[10,11,12]. The objective of the study was to investigate the prevalence of overweight issues and obesity by recording the body mass index (BMI) and explore the dietary habits, physical activities (PAs), and lifestyles of females between 20-40 years of age.

Material and methods:

The study was conducted by nutritionist Priyam Sharma in Delhi .Questionnaire was prepared which included question about general information of subjects, lifestyle, dietary habits, physical activities, and about sleep. 20 female subjects were included in study. They were between age 20-40 years. Age, height, weight, and Body mass Index was recorded from subjects. Mean and standard deviation values were calculated. The data obtained from questionnaire was segregated and studied. Data was divided into general information about subjects, lifestyle of subjects, and dietary pattern of subjects. BMI was calculated and divided into underweight, normal weight and overweight.

Results:

Table 1 shows data about general information of subjects .10 subjects were married and 10 were single. 4 subjects were educated upto graduation, 8 were post graduate and 8 had studied up to high school. 14 subjects were from urban area, 4 from rural and 2 were NRI. It also shows monthly income of subjects

Table 1: General information of subjects

Marital status	Married	Single	
Number of subjects	10	10	
Level of education	Graduate	Post Graduate	Upto high school
	4	8	8
Origin	Rural	Urban	NRI
	4	14	2
Monthly income	Less than 10000 Rs	10000-20000 Rs	20000-80000 Rs
	2	6	12

Table 2 shows Mean and SD values of age, height, weight and BMI. BMI shows that mean BMI was on borderline of overweight of subjects.

Table 2: Mean values of age, weight, height, and BMI

Variables	Mean $\pm$ SD (n = 20)
Age (years)	33.26$\pm$ 6.2
Weight(Kg)	62$\pm$ 10.94
Height(cm)	159$\pm$ 5.98
Body mass index	25.08$\pm$ 4.42

Table 3 shows that half of subjects take alcohol either occasionally or regularly, 16 subjects were non-smokers, half of subjects had sleep less than 6 hours. 12 subjects had physical activities less than 30 minutes in a day.

This shows most of subjects had unhealthy lifestyle.

Table 3: Response to questions on lifestyle

Alcohol intake	Yes	No
Number of subjects	10	10
Smoking	Yes	No
Number of subjects	4	16
Sleep hours in night	Less than 6 hours	More than 6 hours
Number of subjects	10	10
Physical Exercise daily	Less than 30 minutes	30-60 minutes
Number of subjects	12	8

Table 4 shows that 3 subjects were underweight. 9 subjects were normal BMI. 8 subjects were overweight and obese which is due to lack of physical activity and unhealthy diet, alcohol consumption.

Table 4: Body mass Index (kg/metre²)

BMI -Less than 20	BMI-20-25	BMI- More than 25
Under weight	Normal weight	Overweight & obese
3 subjects	9 subjects	8 subjects

Table 5 shows data about dietary habits of subjects, half of subjects were nonvegetarian.. Daily fat intake was more in 8 subjects. 12 subjects had regular habit of eating junk food outside weekly. This shows most of subjects had unhealthy dietary habits.

Table 5: Response to questions related to dietary habits

Type of Diet	Vegetarian	Nonvegetarian	
Number of subjects	10	10	
Number of meals in a day	2	3-4	5-6
Number of subjects	6	10	4
Fat intake in grams	Less than 10 grams	About 10 grams	More than 10 grams
Number of subjects	4	8	8
Junk Food / weekly	Once	2-3 times	More than 3 times
Number of subjects	8	10	2

Discussion:

This high prevalence of the overweight and obese among the female subjects reflects the profound changes in social and behavioral patterns in general community. This high prevalence may be related to their dietary habits, which are usually irregular timings of meals, improper quality of food, eating of too much junk food, and eating mostly outside their homes. Percentage of eating three meals or more is higher for the overweight and obese students. The percentage of eating outside, consumption of snacks, cold drinks, and sweets is also higher for the overweight and obese this needs to be taken into consideration whenever a dietary education program is established for these overweight and obese female subjects. The PA contributes up to 50% of total daily energy expenditure, and there is evidence that active individuals have a healthier body weight and composition than inactive individuals. Physical inactivity and unhealthy diets are considered among the leading causes of major noncommunicable diseases, including cardiovascular disease, type II diabetes, and certain types of cancer, thus contributing substantially to the global burden of disease, death, and disability. The high prevalence of physical inactivity among females is of concern. Thus it emerges from the study that we should not put the issue of obesity on the back burner. It was found that there is a significant increase in overweight and obesity among women in Delhi during last four years. So attention should be paid on overweight and obesity coexisting with under nutrition at the national level. Several general and reproductive health problems were found significantly higher among overweight and obese women compared to normal women, therefore obese women should be given special attention by health providers and policy makers. There is an urgent need to recognize the gravity of the problem of obesity and therefore incorporate it in the general health system. A healthy lifestyle should be promoted to tackle this emerging health threat.

Conclusion:

The findings of this study suggest social patterning in the risk of overweight and obesity among young women of reproductive age in India. It points to the importance of considering women of reproductive age above 30 years and women living in affluent families as potential target group for public health policy and interventions. Further investigations might be needed to examine possible effect modification of educational attainment on overweight and obesity by household socio-economic status and the country's level of economic development. The awareness about PA, healthy diet/lifestyle, and consequences of overweight and obesity on their health and profession must be increased among the young women to avoid future complications.

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