

Asian Resonance

Health Related Life Style Behavior and Occurrence of Obesity among Agrawal Females Residing in Jaipur City



Mukta Agrawal

Associate Professor,
Deptt. of Home Science,
University of Rajasthan,
Jaipur,
muktadr@hotmail.com

Sonam Yadav

Student,
Dept. of Home Science,
University of Rajasthan,
Jaipur

Abstract

Obesity is a condition in which excess fat accumulates in the body, mostly in the subcutaneous tissues. Obesity is usually considered to be present when a person is 20% above the recommended weight for his/her built and height. The accumulation of fat is caused by the consumption of more food than is required for producing enough energy for daily activities. Obese adults are considered at risk for developing comorbidities. The present study was there for an attempt to study the presence of risk factors of obesity among adults population of Agrawal community. Two hundred adult Agrawal females in the age group 25-40 and 50-70 were selected using stratified random sampling technique. Data on anthropometric measurements including weight, height, waist circumference and hip circumference were recorded using standard equipment and techniques. Obesity was assessed using BMI and WHR. Information related to tobacco consumption, alcohol intake, physical activity pattern, family history of de-generation diseases and personal medical history were collected using questionnaire. Food and nutrient intake was assessed using 24 hour dietary recall for 3 consecutive days. Results of the present study indicated that Agrawal females are short in stature. The average weight, waist circumference and BMI were found higher in post menopausal women as compared to younger ones. The prevalence of generalized obesity was found in 52.5% respondents while central obesity was found in 97.5% respondents. Both types of obesity were found higher in post menopausal women as compared to pre menopausal women.

Keywords: Obesity, Agrawal females, Health Related life Style

Introduction

Good health is a major resource and important dimension of the quality of life but in present times changes in life style and dietary patterns stemming from rapid modernization have favoured an increased in the occurrence of non-communicable yet chronic and de-generative diet related diseases among which cardiovascular occupy a primary place (Hakjima, 2000). Obesity is a chronic disease, prevalent globally among the affluent and sedentary subjects and affects the young and old people equally. It has been considered as key risk factor for many chronic and non-communicable diseases, such as diabetes (WHO, 2002). Among the numerous environmental factors affecting obesity viz. dietary intake, food palatability and pleasure drawn from ingestion of food, consumption of fatty and fast foods, the energy balance, physical activity patterns, modernization and urbanization play a key role (James, 2008).

Health related lifestyle behaviour includes food choices, dietary behaviour, physical activity, tobacco and alcohol consumption etc. All these behaviour affects the overall health of person. Technological advancement, modernization, westernization urbanization, easy access to food products, improvement in socio-economic status, improved communication facilities etc. have adversely affected health related life style behaviour. Ready to eat calorie dense food, convenience food, junk food have taken a major position in daily diet. Physical activity reduced due to use of labour saving devices, use of motor driven vehicles for mobility, eating out, celebration of festivals and social get together. Various epidemiological evidence have shown that people who have active lifestyle are at fifty percent lesser risk of degenerative diseases due to maintenance of optimum weight as compared to those who have inactive lifestyles and are overweight or obese (Prasad and Das, 2009).

Agrawal community is a prosperous trader's community. Their purchasing power is high. Most of people are engaged in business and spend their time while sitting and leading to sedentary lifestyle. Agrawals living in Jaipur City are traditional and celebrate many festivals frequently and consume energy dense food during these festivals. Agrawals prefer pure milk high fat diet. They celebrate many festivals and consume high energy foods during festivals, exchange of sweets in common. All these factors need to be researched systematically. Obesity diabetes, cardiovascular disease, hypertension are few chronic degenerative disease related to faulty health related life style behaviour. Present study was planned to study the health related lifestyle behaviour and occurrence of obesity among Agrawal females residing in Jaipur City.

Methodology

Two hundred adult women in 25-75 years age residing in urban area of Jaipur city were selected using stratified random sampling technique. 100 respondents were pre menopausal while 100 were post menopausal. Weight, height, waist circumference and hip circumference were recorded using standard techniques. BMI and WHR were calculated. WHO cut-off for Asians (BMI more then 23) were used to assess overweight and obesity. Waist hip ratio (WHR) more than 0.8 was (for Asians) considered for central obesity. Information pertaining to tobacco and alcohol consumption, medical history, family history of diseases, physical activity, vegetable and fruit intake etc. was collected through questionnaire. Food and nutrient intake was assessed using 24 hour dietary recall method.

Results

The mean values of anthropometric measurements of the subject's i.e weight, waist circumference and hip circumference, BMI and WHR is presented in table-1. All the anthropometric measurements were found higher in post menopausal Women as compare to pre menopausal women.

Table-1
Mean values of Anthropometric Measurements of the Subjects

Anthropometric Variable	25-40 years (pre menopausal)	50-75 years (Post menopausal women)
Height (cm)	156.15	155.8
Weight (kg)	66.2	73.5
BMI (Kg/m ²)	27.3	30.12
Waist circumference (cm)	85.5	92.9
Hip circumference (cm)	96.3	103.4
Waist-Hip Ratio	88.3	90.2

All the respondents were either overweight or obese. (BMI more then 23) 53% of post menopausal women and 30% of pre menopausal women were obese that is BMI more than 30 (table-2).

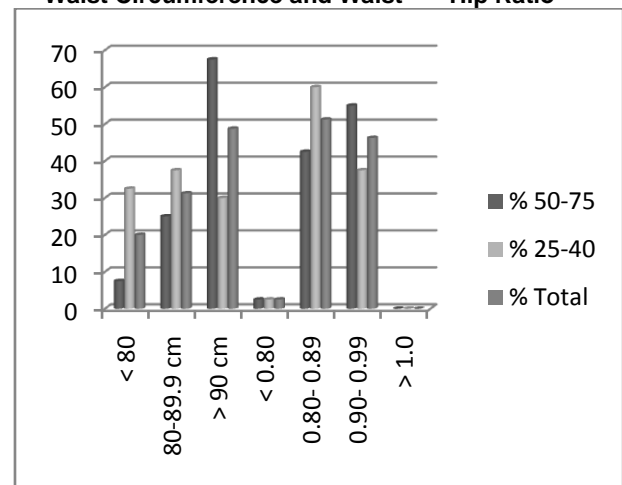
Table-2:
Distribution of subjects according to Body Mass Index(WHO,2004)

BMI	25-40 years pre menopausal) %	50-75 years (Post menopausal women) %	Total %
< 18.5 Underweight	0	0	0
18.5-22.9 Normal	0	0	0
23-24.9 Overweight	42.5	10	26.25
25-29.9 Pre obese	27.5	37.5	32.5
30-34.9 Obesity Grade I	17.5	40	28.75
35-39.9 Obesity Grade II	12.5	7.5	10
>40 Obesity Grade III	0.0	5.0	2.5

Central obesity (WHR more then 0.8) was observed in 97.5% women. Women from both groups were equally suffering from central obesity (Figure-1).

Figure: 1

Percentage Distributions of Subjects According to Waist Circumference and Waist Hip Ratio



Almost one third of the subjects in both groups had positive family history of hypertension and there was a significant difference at 0.05 in both of the groups; however the history of coronary artery disease was 20.% and 22.5% in subjects in group I and group II respectively. Family history of diabetes was 41.25%. Older women have reported more family history of diabetes (52.5%) as compared to younger women (30%). Family history of obesity was reported by 22.5% of all the respondents however older women reported less family history of obesity (10%) as compared to the younger women (35%) (table-3).

Table-3:
Distribution of subjects according to family history of chronic degenerative disease

Types of disease	25-40 years (pre menopausal women) %	50-75 years (Post menopausal women) %	Total (N=200) %
Hypertension	35	30	32.5
CAD	20	22.5	21.25
Diabetes	30	52.5	41.25
Obesity	35	10	22.5

Results of 24 hour recall of food and nutrient intake revealed that intake of energy was higher in pre menopausal women as compare to post menopausal women (table-4). Carbohydrates and fat intake of both groups were similar and there were no significant difference was found. The consumption of all other nutrients except calcium was lower than recommended dietary allowances. The consumption of tobacco and alcohol intake was not practiced and physical activity level was low. Post menopausal women were less active as compared to pre menopausal women.

Table-4
Average intake of nutrients by studied respondents

Nutrient	25-40 years (pre menopausal women) %	50-75 years (Post menopausal women) %	Mean (total)
Protein (g/100g)	32.4	32.71	32.6
Fat (g/100g)	41.62	41.48	41.54
Carbohydrate (g/100g)	148.53	158.53	150.53
Energy (Kcal.)	1514.21	1176.6	1345.54
Calcium(mg/100g)	885.89	1058.86	972.37
Iron (mg/100g)	25.74	16.15	20.94
B-carotene (µg/100g)	885.06	927.96	908.01
Riboflavin (mg/100g)	2.42	8.51	5.47
Thiamine (mg/100g)	32.85	.56	16.70
Niacin (mg/100g)	6.17	6.75	6.45
VitaminC(mg/100g)	35.5	43.42	39.46

Conclusions:

Overweight and obesity was found very high specially central obesity among Agrawal women. Almost all women studied had central obesity. Both groups of pre menopausal and post menopausal women of Agrawal community, this may be due to sedentary life style and consumption of high fat diet.

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