Research Article **ISSN: 2393 – 9540**

International Journal of Nutrition and Agriculture Research

Journal home page: www.ijnar.com

OBESITY AND HEALTH PROBLEMS OF URBAN AND RURAL ADULT WOMEN OF BEED DISTRICT

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ABSTRACT

Over weight and obesity are complex health problems that affect more than two thirds of adults. There are many health conditions associated with overweight and obesity including hypertension, coronary heart disease and type 2 diabetes. A study result concluded that high prevalence of overweight or obesity is associated with chronic diseases. For the present study three hundred adult women in the age of 25 to 45 years were selected from rural and urban areas of Beed district. The study result revealed that maximum number of adult women were having hypertension (high blood pressure) problem. It may be due to high intake of fatty and salty imbalanced foods, low physical activities, Lack of exercise etc. 42% of urban and 58% of rural sample have health problems like cardiovascular, diabetes, asthama etc. It is concluded that incidence of hypertension in adult women cannot be related to any single attribute to diet but it is an integration of dietary and other environmental factors also.

KEY WORDS

Obesity, Hypertension, Health problems and Status.

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INTRODUCTION

Obesity is a public health problem that has raised concern worldwide. According to the World Health Organization (WHO), there will be about 2.3 billion overweight people aged 15 years and above, and over 700 million obese people worldwide in 2015 (WHO 2009). Although a few developed countries such as the United Kingdom and Germany experienced a drop in the prevalence rate of obesity in the past decade, the prevalence of obesity continues to rise in many parts of the world, especially in the Asia Pacific region [Gillt2006,

Low, s *et al* 2009]. For example, the combined prevalence of overweight and obesity increased by 46% in Japan from 16.7% in 1976-1980 to 24.0% in 2000, and by 414% in China from 3.7% in 1982 to 19.0% in 2002 (APC2001, 2002).

An exhaustive body of literature has emerged to show that overweight and obesity are major causes of co-morbidities, including type II diabetes, cardiovascular diseases, various cancers and other health problems, which can lead to further morbidity and mortality (Broun et al2009, Guh DP *et al* 2009, Fontain *et al* 2003, peeter *et al* 2003, Solman and Manson 1997, WHO 2000).

Obesity can be defined as a condition of abnormal or excess fat accumulation in adipose tissue, to the extent that health may be impaired (WHO technical report 2000. The WHO has classified overweight and obesity in adults based on various BMI cutoffs. (WHO 2000).

Obesity and diabetes millitus are often linked Unhealthy diets and physical inactivity is the leading causes of the major life style diseases (Bonita R 2001). The important risk factors associated are high blood pressure, high concentration of cholesterol in the blood, inadequate intake of fruits and vegetables, over weight and physical inactivity, use of fatty food etc. (Reddy Shah, Varghese, Ramadoss 2005), WHO 2004, Bahl, Prabhakaram, Karthikeyan 2001). These factors are associated to each other and leading to development of MCD's (Reddy, Shah, Varghese, and Ramadoss 2005).

These risk factors also have multiple effects. (Bahl, Prabhakaran and Karthikeyan 2001) The dietary changes of the nutrition trasition involve large increases in the consumption of fat, sugar and marked increase in the animal products and a decline in unrefined cereals and fiber intakes (Popkin 2001a,2001b)So it is necessary to identifying and modifying these risk factors and needful action for their prevention and control in various settings. (WHO 2004). Therefore the present study was planned to identify the risk factors of obesity in middle income group of rural and urban adult women of Beed District.

OBJECTIVES

To know the socioeconomic status of rural and urban adult women.

To study the health problems of rural and urban adult women.

To find out the major risk factors associated with Obesity in adult women.

To impart the preventive measures of obesity through intervention programmes.

METHODOLOGY

Three hundred samples between the age of 25-45 years and middle income group were selected randomly from the urban and rural areas of Beed District. The following methods were used for data collection.

Socioeconomic and Dietary Profile.

Anthropametric measurement.

Biochemical estimation.

Food Consumption Profile.

The result of the socioeconomic results revealed that about 57% of urban 43% rural samples have cardiac problems. The monthly per capital income of the subject ranged Rs. 5000 to a high Rs.15000/- urban samples were having good living standard that rural one. 35% of urban and 65% of rural samples was consuming tobacco.

About 52% of urban and 48% of rural adult women was having habit of fatty food consumption in their daily diet. Dietary and physical activity pattern and past history of hypertension and diabetes of urban samples was found higher as compared to rural subject.

Food Consumption Profile

The Table No.4 Shows that dietary consumption pattern of all nutrients were inadequate in the diet of urban and rural samples as compared to R.D.A. by ICMR. Observation of the study revealed that lack of time, burden of work, lack of knowledge, easy going life makes them difficult to get nutrients daily from different food stuffs.

Anthropometric Measurements

According to anthropometric data the prevalence of obesity in the study samples was 60% and BMI was high in urban samples than rural one. The results of the present study corroborate with the prevalence of

obesity in India as depicted by WHO / SEAR-NCD profile (WL+02003). The study result shows that the prevalence of risk factors like high abdominal obesity is present in both urban and rural subject. Similar observation have found in South Asian studies. (Gupta, Sarina and Bhatbagar 2002).

Biochemical Measurement

The Cholesterol and blood sugar level of the subject were present in the Table No.5 About 68% of the subject had blood cholesterol level above 200 mg/dl. Whereas 32% of the subject had blood cholesterol level below 200 mg/dl.

The prevalence of diabetics (fasting blood sugar level = 125 mg/dl) was found 15.5%. Whereas 84.5% subject had normal sugar level, because of they had taken medicine regularly.

A significant association was found between high fatty food consumption, history of diabetes and wrong dietary pattern, low physical activity. There was low intake of vegetables and fruits < 400 gm/dy) showed significant association with history of CVD and hypertension, increased in weight.

It was noted that the risk factors of CVD were quite high in urban than rural population and subjects were being affected in their peak productive years of life.

Table No.1: Age distribution of urban and rural adult women

S.No	Age	Urban Samples		Rural Sample	
1	-	**Total No. of sample**	**Percentage**	**Total No. of sample**	**Percentage**
2	25-30	35	23.66	40	26.66
3	30-35	31	20.66	35	23.33
4	35-40	38	25.33	45	30.00
5	40-45	46	30.66	30	20.00
6	Total	150	100	150	100

Table No.2: Health problems of urban and rural adult women

S.No	Health problems	Urban Sample		Rural Sample	
		Total no of sample	**Percent**	**Total no of sample**	**Percent**
1	Obesity	40	26.66	65	43.33
2	Tiredness	30	20.00	30	20.00
3	Breathlessness	30	20.00	35	23.33
4	Swelling	20	10.33	10	6.66
5	Normal	30	20.00	10	6.66
6	Total	150	100	150	100

Table No.3: Percentage Distribution of Risk factors in Urban and Rural samples

S.No	Risk Factors	Urban Subject		Rural Subject	
		(n = 150)	**Percentage**	**(n = 150)**	**Percentage**
1	Low intake of fruits and vegetable	100	66.66%	117	78%
2	Low Physical activity	120	80%	90	60%
3	History of Hyper tension	100	66.66%	125	83.33%
4	Consumption of Fatty Food	115	76.66%	130	86.66%
5	Consumption of Tobacco	99	66%	120	80%
6	History of Diabetes	103	68.66%	105	70%

Table No.4: Anthropometric Measurements of urban and rural adult women

S.No	Particular	Urban		Rural	
		(n = 150)	Percentage	(n = 150)	Percentage
1	Over weight	53	35.33%	45	30%
2	Obese	90	60%	80	53.33%
3	Under weight	0.7	4.66%	25	16.66%

Over weight = High BMI > 23 Kg/m^2; High BMI = > 23 Kg/m^2; Obese = BMI > 30 gm/m^2
(According to WHO Classification)

Table No.5: Percentage Distribution of Cholesterol and Sugar level

S.No	Test	Urban		Rural	
		High	Normal	High	Normal
1	Blood Cholesterol Level	68% (102)	0.32% (48)	73.33% (110)	40% (26.66)
2	Blood Sugar	32% (21.33)	78.66% (118)	30% (20)	80% (120)

Table No.6: Nutrient intake of Rural and Urban adult women

S.No	Nutrients	RDA by ICMR For Adult (Sed)	Rural sample of Present Study	Urban sample of Present Study
1	Protein (Gm)	55	(6.0) 49	(3.8) 51.20
2	Calories (Kcal)	2800	(-740) 2060	(585) 2215
3	Calcium (mg)	500	(115) 385	(85) 415
4	Iron (mg)	24	(2.082) 21.60	(4) 20.01
5	Vit A. (mg)	750	(105) 645	(97) 653
6	Vit B_1 (mg)	1.2	(1.10) 1.02	(.24) 0.96
7	Vit B_2 (mg)	1.4	(0.45) 0.95	(0.3) 1.10
8	Vit B_3 (mg)	16.0	(4.25) 11.75	(3.37) 12.63
9	Vit C (mg)	40	(3.93) 36.07	(1.96) 38.04

Table No.7: Comparison of Nutrient intake of Rural and Urban Samples

S.No	Nutrient	Mean ± S.d.	+ Value
1	Protein Rural Urban	49.21 ±1.03	1.43 2.01
2	Iron Rural Urban	20.95 ±12.73 20.63 ±16.01	3.21 2.13
3	Calcium Rural Urban	335.85 ±16.21 406.95 ±18.31	2.68 3.08
4	Vit C Rural Urban	36.16 ±0.37 38.15 ±1.23	2.88 2.95

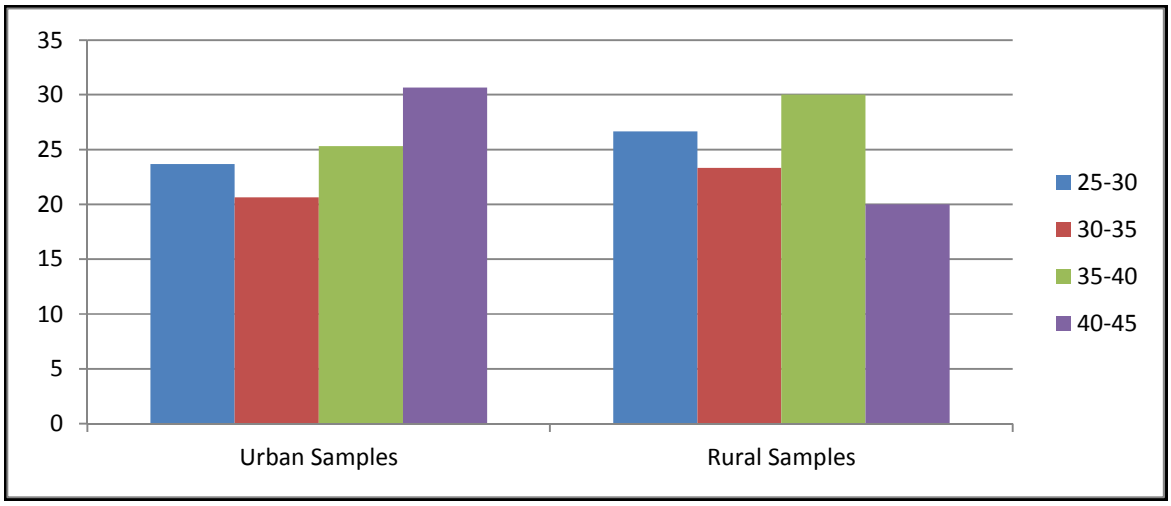

Figure No.1: Age distribution of urban and rural adult women

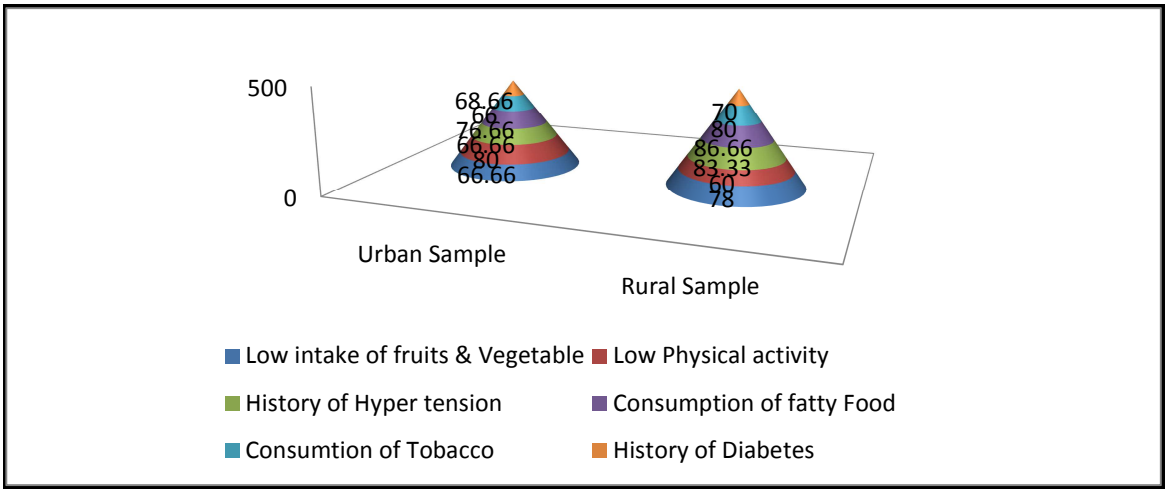

Figure No.2: Health problems of urban and rural adult women

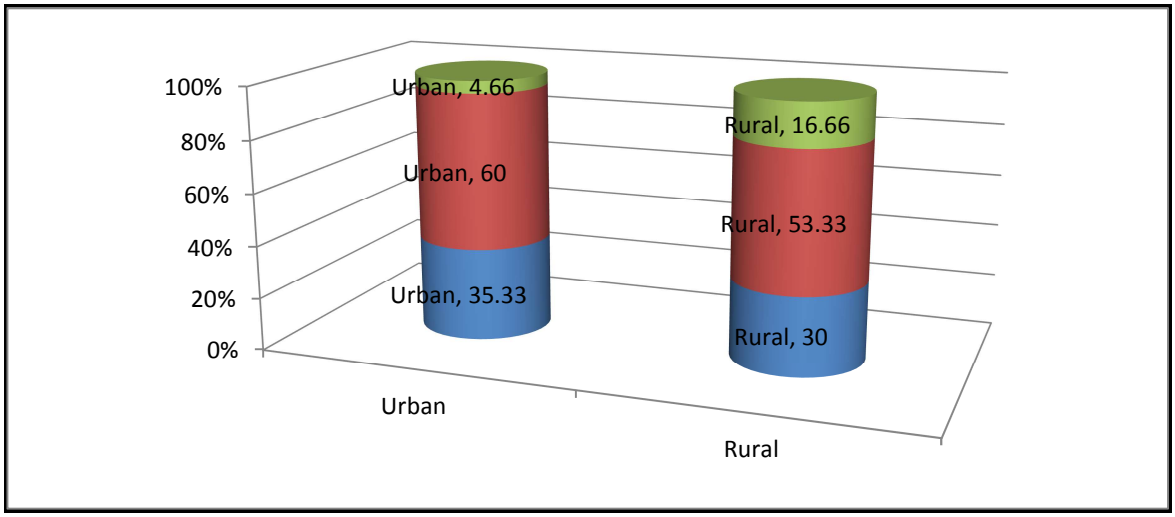

Figure No.3: Percentage Distribution of Risk factors in Urban and Rural samples

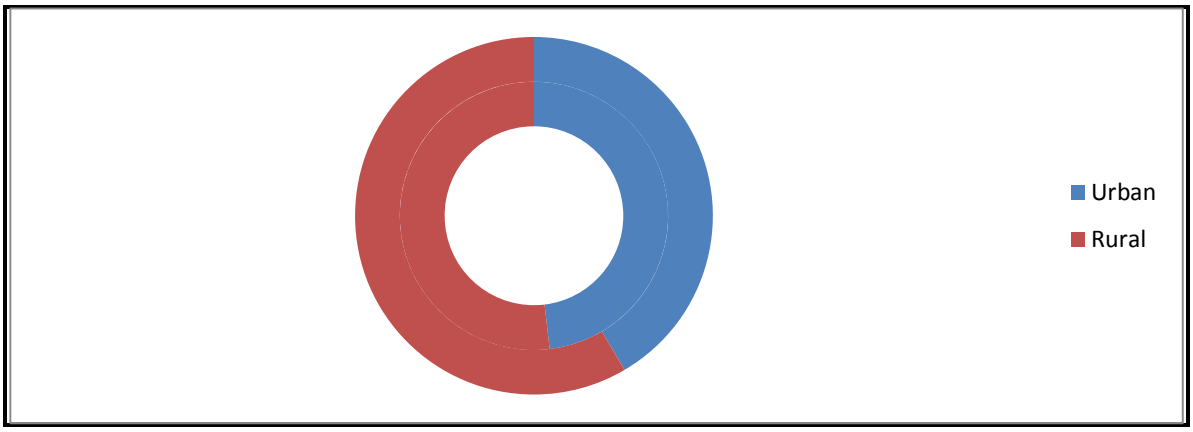

Figure No.4: Anthropometric Measurements of urban and rural adult women

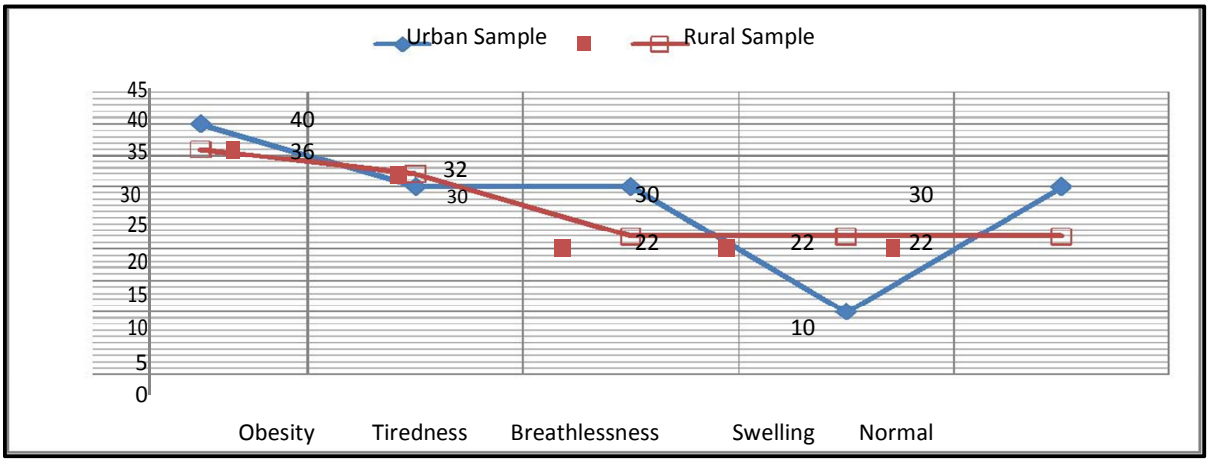

Figure No.5: Nutrient intake of Rural and Urban adult women

CONCLUSION

The study concluded that poor awareness among productive population is the main risk factor for health problems. Therefore it is necessary to take interest and efforts to remove this problem from our society.

ACKNOWLEDGEMENT

We are highly thankful to Department of Home Science, Mrs. K.S.K. College, Beed. Dr. BAMU. A. Bad and Miss Mubeena Shaikh, Research Student, SRTU, University, Nanded, India. for providing us necessary laboratory equipment's for research.

CONFLICT OF INTEREST

We declare that we have no conflict of interest.

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Please cite this article in press as: Nuzhat Sultana M B. Obesity and health problems of urban and rural adult women of beed district, *International Journal of Nutrition and Agriculture Research*, 2(1), 2015, 1 - 7.