

**A COMPARATIVE STUDY TO ASSESS THE PREVALENCE OF OBESITY WITH ITS
CORRELATED FACTORS BETWEEN WORKING WOMEN AND HOUSEWIVES IN
SELECTED AREA OF KANPUR (UP)**

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ABSTRACT

Introduction: Obesity is a complex disease involving an excessive amount of body fat. Obesity isn't just a cosmetic concern. It is a medical problem that increases risk of other diseases and health problems, such as heart disease, diabetes, high blood pressure and certain cancers. Usually, obesity results from a combination of inherited factors, combined with the environment and personal diet and exercise choices.

METHODOLOGY: The method adopted for the present study was evaluative approach with cross sectional comparative research design. Purposive sampling technique was used to select the sample. The sample size was 60. (30 working women and 30 housewives). The setting of the study was selected area Kanpur (UP). The tool used for this study was self structured questionnaire. The independent variable was contributing factors: junk food, sweets, milk, less physical activity, lifestyle and dependent variables was BMI and Waist Hip Ratio.

RESULTS: Among working women's Body mass index, majority 17 (56.7 %) were obese, 7 (23.3 %) subjects were healthy and 6 (20.0 %) were overweight. Among house wife's body mass index, majority 23 (76.7 %) were obese, 4 (13.3 %) were healthy and Very few subjects 3 (10.0 %) were overweight. Among working women's waist- hip ratio majority 14 (46.7 %) were low, 7 (23.3 %) subjects were moderate and 9 (30.0 %) were in high. Among house wife's waist – hip ratio, majority 13 (43.3 %) were moderate, 11 (16.7 %) were high and Very few subjects 6 (20.0 %) were in low ratio. This study found that there was more prevalence of obesity in housewives as compared to working women.

INTERPRETATIONS AND CONCLUSION: The findings of the study conclude that housewives have more prevalence of obesity as compared to working women. BMI and Waist hip ratio of housewives was more than working women. There was significant association of age with Waist Hip Ratio in working women.

KEY WORDS: Obesity, prevalence, working women, housewives, BMI (body mass index) WHR (waist hip ratio)

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INTRODUCTION

The human body needs energy to function and food is the source of this energy. The body stores excess energy mainly in the form of fats. According to the World Health Organization (WHO), when an individual's health is impaired by excessive body fat, that person is said to be obese.¹

Obesity is a major risk factor for several non-communicable diseases. Among these are diabetes (type 2), sleep disorders, depression, anxiety, cancers and many cardiovascular diseases. As BMI increases, the risks of these diseases also increase. In 2013, obesity was classified as a disease by the

American Medical Association to get physicians to pay more attention to this condition.²

World Health Organization updated report, shows that the prevalence of obesity worldwide has increased tremendously since 1980. The report indicates that 39 and 13 % of people 18 years and above were overweight and obese respectively in 2014. Obesity and overweight kills more people than underweight in many countries, and these countries account for 65 % of the global population.³

Obesity is rapidly establishing itself as a public health problem in several developing countries with urban communities having higher prevalence of obesity, particularly among those of higher socioeconomic status. Overweight and obesity are major risk factors for a number of chronic diseases, including cardiovascular diseases such as heart disease and stroke, which

are the leading causes of death worldwide. Being overweight can also lead to diabetes and its associated conditions, including blindness, limb amputations, and the need for dialysis. The risk of these non communicable diseases increases even when a person is only slightly overweight and grows more serious as the body mass index (BMI) climbs.⁴

METHODOLOGY:

RESEARCH APPROACH:-In present study an evaluative approach was used to assess the prevalence of obesity among working women and housewives in Kanpur (UP)

RESEARCH DESIGN:- A research design selected for the present study was cross-sectional (comparative) study design.

VARIABLES UNDER THE STUDY:-

A. DEPENDENT VARIABLES: - in present study dependent variables were:

01. Overweight (body mass index (BMI)>30kg/m²)
02. Health risk (waist-to-hip-ratio)

B. INDEPENDENT VARIABLE- In present study independent variables were associated factors which may contribute in obesity:

01. Consumption of junk food, sweets, milk
02. Lifestyle, less physical activity

C. DEMOGRAPHIC VARIABLES: - In present study demographic variables were: Age, Education, Economic Status, No. of Children, Type of Residential Area, Type of Family.

RESEARCH SETTING

The present study was conducted in selected area of Kanpur (UP)

POPULATION

There were two types of population target population and accessible population.

TARGET POPULATION

The target population of this study consists of working women and housewives of selected area of Kanpur (UP)

SAMPLE:-

30 Working women and 30 housewives of selected area of Kanpur (UP)

SAMPLE SIZE:-

The sample of present study is 60 women (30 working women & 30 housewives) who fulfill the inclusion criteria as consider as the sample.

SAMPLE TECHNIQUE: -

The tool used for the research study was a semi structured questionnaire.

Questionnaire was administered to the women and the information was obtained by the investigator.

The tool consisted of three sections:

Section 1: Background data of the women.

Section 2: Anthropometric measurement of women.

Section 3: Selected contributing factors of obesity.

Section 1: Selected Background data of women

It consisted of --- questions seeking information on the selected background data of obese women the item included Age, Sex, marital status, Type of family, Residential area, Religion, Education, Employment status of women and Economic status of family.

Section 2: Assessment of dependent variables

This section consists of weight, height, BMI, Waist and hip ratio.

Section 3: Selected contributing Factors of obesity.

This section sought information regarding factors of obesity. It consisted of five factors

namely Nutritional, Medical, Physical, Leisure activity and Psychological factors of women.

There were-16 items in this section. The items were distributed

As follows:

1. Nutritional factor
2. Genetic Predisposition factor
3. Medical factors
4. Physical factors
5. Leisure activity
6. Psychological Factors

ORGANIZATION OF THE STUDY FINDINGS

Section – I: Frequency and Percentage Distribution of Subjects

Table – 4.1: Comparison of Frequency and Percentage Distribution of Working Women and House Wives according to socio-demographic variables:

Age in years				
	Working Women		House Wives	
	Frequency	Percent	Frequency	Percent
30-34 years	9	30.0	10	33.3
35-39 years	8	26.7	7	23.3
40-44 years	8	26.7	5	16.7
45-50 years	5	16.7	8	26.7
Religion				
Hindu	19	63.3	21	70.0
Sikh	8	26.7	6	20.0
Muslim	3	10.0	2	6.7
Christian	0	0.0	1	3.3
Marital Status				
Married	28	93.3	30	100.0
Widow	2	6.7	0	0.0
Type of Residential Area				
Rural	30	100.0	30	100.0
Urban	0	0.0	0	0.0
Type of Family				
Nuclear	17	56.7	18	60.0
Joint	13	43.3	12	40.0
Number of Children				
0	2	6.7	3	10.0
1	9	30.0	6	20.0
2	15	50.0	11	36.7
More than 2	4	13.3	10	33.3
Family Income (Rupees)				
10,000-20,000	0	0.0	4	13.3
20,000-30,000	11	36.7	12	40.0
Above 30,000	19	63.3	14	46.7
Qualification				
Uneducated	0	0.0	3	10.0
Primary education	0	0.0	11	36.7
Secondary education	0	0.0	11	36.7
Graduation or above	30	100.0	5	16.7
Occupation				
House Wife	0	0.0	30	100.0
Working Women	30	100.0	0	0.0
Type of Job				
Self employed	9	30.0	0	0.0
Govt. employed	21	70.0	0	0.0
None	0	0.0	30	30.0
Education of husband				
Illiterate	0	0.0	1	3.3
Primary	0	0.0	2	6.7
Secondary	4	13.3	11	36.7
Graduation and above	26	86.7	16	53.3
Occupation of husband				
Govt employee	17	56.7	10	33.3
Self - employee	13	43.3	12	40.0
Un employee	0	0.0	1	3.3
Others	0	0.0	7	23.3

Table –4.1 Compares the frequency and percentage distribution of socio-demographic variables of Working women and house wives.

Table – 4.2: Descriptive Statistics of the Subjects Weight, Height, Waist Circumference and Hip Circumferences in Working Women

(n = 30)

Variable s	Rang e	Mi nim um	Maxim um	Su m	Mean	Std. Devi ation	Vari ance
Weight	44	54	98	2215	73.83	10.309	106.282
Height	13	154	167	4794	159.80	3.800	14.441
Waist Circumference	33	78	111	2878	95.93	8.874	78.754
Hip Circumference	28	100	128	3480	116.00	8.073	65.172

Table – 4.2 presents the descriptive statistics of the working women variables such as weight, height, waist circumference and hip

Table – 4.3: Descriptive Statistics of the Subjects Weight, Height, Waist Circumference and Hip Circumferences in House Wives

(n = 30)

Variabl es	Ra nge	Mi nim um	Maxi mum	Su m	M ea n	Std. Devi atio n	Vari ance
Weight	39	54	93	2313	77.10	10.525	110.783
Height	16	152	168	4755	158.50	4.158	17.293
Waist Circumference	51	72	123	2951	98.37	10.331	106.723
Hip Circumference	30	100	130	3488	116.27	7.768	60.340

Table – 4.3 presents the descriptive statistics of the House wife's variables such as weight, height, waist circumference and hip circumferences.

With regard to weight, the range score was 39 (Max = 93 & Min = 54). Sum was 2313; mean score was 77.10, S.D $\pm$ 10.525. The variance level was 110.783.

With regard to Height, the range score was 16 (Max = 152 & Min = 168). Sum was 4755; mean score was 158.50, S.D $\pm$ 4.158. The variance level was 17.293

With regard to waist circumference the range score was 51 (Max = 123 & Min = 72). Sum

was 2951; mean score was 98.37, S.D $\pm$ 10.331. The variance level was 106.723

With regard to Hip circumference the range score was 30 (Max = 100 & Min = 130). Sum was 3488; mean score was 116.27, S.D $\pm$ 7.768. The variance level was 60.

Section – II: The first objective of the study was to assess the prevalence of obesity among working women and housewives in selected area of Kanpur (U.P).

Table – 4.4: Comparison of Body Mass Index (BMI) Between Working Women and House Wives

(N = 60)

Level of BMI				
	Working Women		House Wives	
	Frequency	Percent	Frequency	Percent
Healthy	7	23.3	4	13.3
Over weight	6	20.0	3	10.0
Obese	17	56.7	23	76.7

With regard to frequency and percentage distribution of subjects related to BMI.

Among working women's majority 17 (56.7 %) were obese. Those who were healthy were 7 (23.3 %) subjects who were in over – weight were 6 (20.0 %).

Among house wife's body mass index, majority 23 (76.7 %) were obese. Those who were healthy were 4 (13.3 %). Very few subjects 3 (10.0 %) were overweight.

Table – 4.5: Comparison of Waist Hip Ratio between Working Women and House Wives (N = 60)

Level of Waist Hip Ratio				
	Working Women		House Wives	
	Frequency	Percent	Frequency	Percent
Low	14	46.7	6	20.0
Moderate	7	23.3	13	43.3
High	9	30.0	11	36.7

With regard to frequency and percentage distribution of subjects related to Waist – Hip Ratio

Among working women's majority 14 (46.7 %) were low. Those who were in moderate were 7 (23.3 %) subjects who were in high were 9 (30.0 %).

Among house wife's waist – hip ratio, majority 13 (43.3 %) were moderate. Those who were high were 11 (16. 7 %). Very few subjects 6 (20.0 %) were in low.

Table – 4.6: Comparison of Body Mass Index (BMI) Between Working Women and House Wives (N = 60)

BMI	Mean	Mean Difference	Standard Deviation	Independent 't' test value	'P' Value
Working Women	28.91	1.72	3.91	-1.760 (df = 58)	0.084 Not Significant
House Wives	30.63		3.67		

Among working women, mean BMI score was 28.91. S.D $\pm$ 3.91. the house wife's mean BMI score was 30.63, S.D $\pm$ 3.67. The mean difference score was 1.72. Independent't' test score was 1.760 for the degree of freedom 58. The 'P' value was 0.084. it was not statistically significant at the 'P' value less than 0.05.

Hence, we conclude the BMI score among working women and house wives were not having many differences.

Table – 4.7: Comparison of Waist Hip Ratio between Working Women and House Wives (N = 60)

BMI	Mean	Mean Difference	Standard Deviation	Independent 't' test value	'P' Value
Working Women	0.823	0.019	.040	-1.679 (df = 58)	0.099 Not Significant
House Wives	0.842		.048		

Among working women, mean waist – hip ratio score was 0.823. S.D $\pm$ 0.40. the house wife's mean waist – hip ratio score was 0.842, S.D $\pm$ 0.048. The mean difference score was 0.019. Independent't' test score was -1.679 for the degree of freedom 58. The 'P' value was 0.099. it was not statistically significant at the 'P' value less than 0.05.

Hence, we conclude the waist – hip ratio score among working women and house wives were not having much differences.

Section – III:

Second objective of the study was to determine the factors contributing in obesity among working women and housewives in selected area of Kanpur (U.P).

Table – 4.8: Comparison of Contributing Factors of Obesity Between Working Women and House Wives (N = 60)

Diet pattern				
	Working Women		House Wives	
	Frequency	Percent	Frequency	Percent
Vegetarian	18	60.0	15	50.0
Non - Vegetarian	7	23.3	9	30.0
Vegie and Egg	5	16.7	6	20.0
Oil use for cooking				
Mustard oil	12	40.0	8	26.7
Refined oil	10	33.3	9	30.0
Desi Ghee	8	26.7	13	43.3
Consumption of meal in a day				
2	4	13.3	10	33.3
3	23	76.7	11	36.7
4	3	10.0	9	30.0
Consumption of fruits in a day				
Once	21	70.0	19	63.3
2 times	5	16.7	8	26.7
None	4	13.3	3	10.0
Consumption of junk food in a day				
2-4 times	17	56.7	21	70.0
4 - 6 times	1	3.3	1	3.3
None	12	40.0	8	26.7
Caffeinated drinks that you consume daily				
Coffee	7	23.3	6	20.0
Tea	21	70.0	23	76.7
Chocolate shakes	2	6.7	1	3.3
Intake of sweets in a day				
Once	24	80.0	12	40.0
2-4 times	1	3.3	9	30.0
None	5	16.7	9	30.0
Consumption of milk products in a day				
Once	9	30.0	6	20.0
2 -4 times	18	60.0	17	56.7
4 – 6 times	0	0.0	1	3.3
None	3	10.0	6	20.0
Sleeping hours in a day				
4-6 hours	5	16.7	7	23.3
6-8 hours	24	80.0	19	63.3
8-10 hours	1	3.3	4	13.3
Activities performed in leisure time				
Watching television	8	26.7	8	26.7
Using Mobile Phone	5	16.7	4	13.3
Household Activities	11	36.7	11	36.7
others	6	20.0	7	23.3
Physical activities that you performed in a day				
Walking	16	53.3	10	33.3
Cycling	1	3.3	0	0.0
Sports	2	6.7	1	3.3
Others	4	13.3	8	26.7
None	7	23.3	11	36.7
Duration of physical activities that you performed in a day				

1 Hour	17	56.7	14	46.7
2 Hour	5	16.7	5	16.7
None	8	26.7	11	36.7
Duration of physical activities that you performed in a day				
1 Hour	17	56.7	14	46.7
2 Hour	5	16.7	5	16.7
None	8	26.7	11	36.7
Any history of following psychological problems				
Anxiety	2	6.7	3	10.0
Depression	3	10.0	3	10.0
Sadness	1	3.3	3	10.0
None	24	80.0	21	70.0
Dietary pattern during tension				
Same as usual	20	66.7	21	70.0
Increase	5	16.7	5	16.7
Decrease	5	16.7	4	13.3
Any history of following medical condition				
Hypertension	5	16.7	9	30.0
Polycystic ovarian disease (PCOD)	1	3.3	2	6.7
Thyroid	2	6.7	4	13.3
None	22	73.3	15	50.0
Type of contraceptive method used				
Contraceptive pills	6	20.0	7	23.3
Condoms	3	10.0	5	16.7
Intrauterine devices	8	26.7	4	13.3
Sterilization	9	30.0	7	23.3
None	4	13.3	7	23.3

Table – 4.10: Level of Association between Waist – Hip Ratio and Selected Socio-demographic Variables (Working Women).

Table – 4.11: Level of Association between Body Mass Index and Selected Socio-demographic Variables (House Wives).

Table – 4.12: Level of Association between Waist – Hip Ratio and Selected Socio-demographic Variables (House Wives).

Section – IV:

The third objective of the study is to find out association between obesity on health of working women and housewives with selected demographic variables.

Table – 4.9: Level of Association between Body Mass Index and Selected Socio-demographic Variables (Working Women).

Table – 4.9: Level of Association between Body Mass Index and Selected Socio-demographic Variables (Working Women) (N = 30)

		Body Mass Index			Chi-Square	'P' value
		Healthy	Over Weight	Obese		
Age	30-34 years	0	1	8	10.244 (df = 6)	0.116 Not significant
		0.0%	11.1%	88.9%		
	35-39 years	3	3	2		
		37.5%	37.5%	25.0%		
	40-44 years	3	2	3		
		37.5%	25.0%	37.5%		
Religion	Hindu	1	0	4	1.469 (df = 4)	0.832 Not significant
		20.0%	0.0%	80.0%		
	Sikh	5	4	10		
		26.3%	21.1%	52.6%		
	Muslim	1	2	5		
		12.5%	25.0%	62.5%		
Marital Status	Married	1	0	2	1.098 (df = 2)	0.577 Not Significant
		33.3%	0.0%	66.7%		
	Un Married	6	6	16		
		21.4%	21.4%	57.1%		
Type of Family	Nuclear	1	0	1	0.826 (df = 2)	0.662 Not significant
		50.0%	0.0%	50.0%		
	Joint	2	3	9		
		15.4%	23.1%	61.5%		
Number of Children	0	2	3	8	5.563 (df = 6)	0.474 Not significant
		13.3%	26.7%	60.0%		
	1	0	1	3		
		0.0%	25.0%	75.0%		
	2	4	1	4		
		44.4%	11.1%	44.4%		
Family Income	20,000-30,000	2	4	9	0.158 (df = 2)	0.924 Not significant
		13.3%	26.7%	60.0%		
	Above 30,000	0	1	3		
		0.0%	25.0%	75.0%		
Type of Job	Self - employed	3	2	6	1.083 (df = 2)	0.582 Not significant
		27.3%	18.2%	54.5%		
	Govt employed	4	4	11		
		21.1%	21.1%	57.9%		
Education of Husband	Secondary	1	2	6	0.99 (df = 1)	0.952 Not significant
		11.1%	22.2%	66.7%		
	Graduation and Above	6	4	11		
		28.6%	19.0%	52.4%		
Occupation of Husband	Govt employed	1	1	2	0.820 (df = 2)	0.664 Not significant
		25.0%	25.0%	50.0%		
	Self employed	6	5	15		
		23.1%	19.2%	57.7%		
Occupation of Husband	Govt employed	3	4	10	0.820 (df = 2)	0.664 Not significant
		17.6%	23.5%	58.8%		
	Self employed	4	2	7		
		30.8%	15.4%	53.8%		

From the above table we can find all the socio-demographic variables have their 'P' value more than 0.05 level of significance. **Table – 4.10: Level**

of Association between Waist – Hip Ratio and Selected Socio-demographic Variables (Working Women) (N = 30)

		Waist – Hip Ratio			Chi-Square	'P' value
		Low	Moderate	High		
Age	30-34 years	3	2	4	14.521 (df = 6)	0.024* significant
		33.3%	22.2%	44.4%		
	35-39 years	6	1	1		
		75.0%	12.5%	12.5%		
	40-44 years	4	4	0		
		50.0%	50.0%	0.0%		
Religion	Hindu	1	0	4	2.030 (df = 4)	0.730 Not significant
		20.0%	0.0%	80.0%		
	Sikh	8	5	6		
		42.1%	26.3%	31.6%		
	Muslim	4	1	3		
		50.0%	12.5%	37.5%		
Marital Status	Married	2	1	0	0.791 (df = 2)	0.673 Not Significant
		66.7%	33.3%	0.0%		
	Un Married	13	7	8		
		46.4%	25.0%	28.6%		
Type of Family	Nuclear	1	0	1	0.006 (df = 2)	0.997 Not significant
		50.0%	0.0%	50.0%		
	Joint	6	3	4		
		46.2%	23.1%	30.8%		
Number of Children	0	4	4	1	5.319 (df = 6)	0.507 Not significant
		44.4%	44.4%	11.1%		
	1	8	2	5		
		53.3%	13.3%	33.3%		
	2	1	1	2		
		25.0%	25.0%	50.0%		
Family Income	20,000-30,000	4	4	3	1.702 (df = 2)	0.427 Not significant
		36.4%	36.4%	27.3%		
	Above 30,000	10	3	6		
		52.6%	15.8%	31.6%		
Type of Job	Self - employed	4	3	2	8.826 (df = 2)	0.662 Not significant
		44.4%	33.3%	22.2%		
	Govt employed	10	4	7		
		47.6%	19.0%	33.3%		
Education of Husband	Secondary	2	0	2	1.703 (df = 1)	0.427 Not significant
		50.0%	0.0%	50.0%		
	Graduation and Above	12	7	7		
		46.2%	26.9%	26.9%		
Occupation of Husband	Govt employed	7	3	7	2.431 (df = 2)	0.297 Not significant
		41.2%	17.6%	41.2%		
	Self employed	7	4	2		
		53.8%	30.8%	15.4%		

Level of Significance at 'P' value < than 0.05

From the above table we can find all the socio-demographic variables except age have their 'P' value more than 0.05 level of significance. Hence, we can conclude that all the socio-demographic variables of working women except age were not statistically significant associated with body mass index.

The chi-square value for age and waist – hip ratio was 14.521 with the degree of freedom 6. The 'P' value was 0.024. it was less than 0.05 level of significance so we shall reject the null hypothesis and accept the alternate hypothesis.

Table – 4.11: Level of Association between Body Mass Index and Selected Socio-demographic Variables (House Wives)

(N = 30)

		Body Mass Index			Chi Square	'P' Value
		Healthy	Overweight	Obese		
Age	30-34 years	2	0	8	5.315 (df = 6)	0.504 Not significant
		20.0%	0.0%	80.0%		
	35-39 years	1	0	6		
		14.3%	0.0%	85.7%		
	40-44 years	0	1	4		
		0.0%	20.0%	80.0%		
Religion	Hindu	4	2	15	2.609 (df = 6)	0.856 Not significant
		19.0%	9.5%	71.4%		
	Sikh	0	1	5		
		0.0%	16.7%	83.3%		
	Muslim	0	0	2		
		0.0%	0.0%	100.0%		
Type of Family	Nuclear	0	0	1	1.271 (df = 2)	0.530 Not significant
		0.0%	0.0%	100.0%		
	Joint	3	1	14		
		16.7%	5.6%	77.8%		
Number of Children	0	1	2	9	17.870 (df = 6)	0.007 Not significant
		8.3%	16.7%	75.0%		
	1	2	0	1		
		66.7%	0.0%	33.3%		
	2	0	0	6		
		0.0%	0.0%	100.0%		
	More than 2	0	0	11		
		0.0%	0.0%	100.0%		
		2	3	5		
		20.0%	30.0%	50.0%		

Family Income	10,000-20,000	2 50.0%	1 25.0%	1 25.0%	8.442 (df = 4)	0.077 Not Significant
	20,000-30,000	0 0.0%	1 8.3%	11 91.7%		
	Above 30,000	2 14.3%	1 7.1%	11 78.6%		
Qualification	Uneducated	0 0.0%	0 0.0%	3 100.0%	9.474 (df = 6)	0.149 Not significant
	Primary education	1 9.1%	0 0.0%	10 90.9%		
	Secondary education	1 9.1%	3 27.3%	7 63.6%		
Education of Husband	Illiterate	0 0.0%	0 0.0%	1 100.0%	1.252 (df = 6)	0.974 Not significant
	Primary	0 0.0%	0 0.0%	2 100.0%		
	Secondary	2 18.2%	1 9.1%	8 72.7%		
Occupation of Husband	Govt employee	0 0.0%	3 30.0%	7 70.0%	9.009 (df = 6)	0.173 Not significant
	self employee	2 16.7%	0 0.0%	10 83.3%		
	Un employee	0 0.0%	0 0.0%	1 100.0%		
	Others	2 28.6%	0 0.0%	5 71.4%		

Level of Significance at 'P' value < than 0.05

From the above table we can find all the socio-demographic variables have their 'P' value more than 0.05 level of significance. Hence, we can conclude that all the socio-demographic variables of working women were not statistically significant associated with body

mass index.

Table – 4.12: Level of Association between Waist – Hip Ratio and Selected Socio-demographic Variables (House Wives)

(N = 30)

		Waist - Hip Ratio			Chi Square	'P' Value
		Low	Moderate	High		
Age	30-34 years	3	2	5	7.610 (df = 6)	0.268 Not significant
		30.0%	20.0%	50.0%		
	35-39 years	2	2	3		
		28.6%	28.6%	42.9%		
	40-44 years	0	3	2		
		0.0%	60.0%	40.0%		
	45-50 years	1	6	1		
		12.5%	75.0%	12.5%		
Religion	Hindu	5	10	6	3.324 (df = 6)	0.767 Not significant
		23.8%	47.6%	28.6%		
	Sikh	1	2	3		
		16.7%	33.3%	50.0%		
	Muslim	0	1	1		
		0.0%	50.0%	50.0%		
	Christian	0	0	1		
		0.0%	0.0%	100.0%		
Type of Family	Nuclear	4	8	6	0.260 (df = 2)	0.878 Not significant
		22.2%	44.4%	33.3%		
	Joint	2	5	5		
		16.7%	41.7%	41.7%		
Number of Children	0	2	0	1	9.219 (df = 6)	0.182 Not significant
		66.7%	0.0%	33.3%		
	1	1	3	2		
		16.7%	50.0%	33.3%		
	2	0	5	6		
		0.0%	45.5%	54.5%		
	More than 2	3	5	2		
		30.0%	50.0%	20.0%		
Family Income	10,000-20,000	1	2	1	2.772 (df = 4)	0.597 Not Significant
		25.0%	50.0%	25.0%		
	20,000-30,000	2	7	3		
		16.7%	58.3%	25.0%		
	Above 30,000	3	4	7		
		21.4%	28.6%	50.0%		
Qualification	Uneducated	0	2	1	5.802 (df = 6)	0.446 Not significant
		0.0%	66.7%	33.3%		
	Primary education	2	5	4		
		18.2%	45.5%	36.4%		
	Secondary education	2	3	6		
		18.2%	27.3%	54.5%		
	Graduation or above	2	3	0		
		40.0%	60.0%	0.0%		
Education of Husband	Illiterate	0	0	1	7.088 (df = 6)	0.313 Not significant
		0.0%	0.0%	100.0%		
	Primary	0	2	0		
		0.0%	100.0%	0.0%		
	Secondary	4	3	4		
		36.4%	27.3%	36.4%		
	Graduation and above	2	8	6		
		12.5%	50.0%	37.5%		
Occupation of Husband	Govt employee	2	3	5	4.140 (df = 6)	0.658 Not significant
		20.0%	30.0%	50.0%		
	self - employee	2	7	3		
		16.7%	58.3%	25.0%		
	Un employee	0	0	1		
		0.0%	0.0%	100.0%		
	Others	2	3	2		
		28.6%	42.9%	28.6%		

Level of Significance at 'P' value < than 0.05

From the above table we can find all the socio-demographic variables have their 'P' value more than 0.05 level of significance. Hence, we can conclude that all the socio-demographic variables of house wives were not statistically significant associated with waist – hip ratio.

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