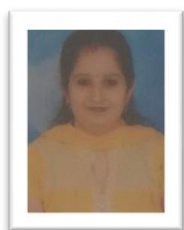


## Anthropometric Measurements of Non Working (25-40 Years) Women of Rohtak District



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### Abstract

Women play multiple roles in the family that affect the health and well-being of all family members. The role of women as care-givers and as providers of family income may conflict with one another; which may have potentially important implications for the welfare of children. The employment status of the mother can have a significant impact on the health and nutritional status of the mother, which in turn can have an implication on the pre-school child. The present study was conducted in Rohtak district of Haryana to assess the nutritional status of non working women of 25-40 years. A total of 300 Non-working women were selected from Rohtak district including Kalanaur block. Mean weight was 66.34 kg which was significantly higher than reference value. Majority (47.00%) of non working women were overweight as per WHO classification. Majority (65.02%) of the women of age group 25-29 years were very high waist hip ratio.

**Keywords:** Anthropometric, Non working, Women.

### Introduction

Anthropometric evaluation is an essential feature of nutritional evaluation for determining malnutrition, being overweight, obesity, muscular mass loss, fat mass gain and adipose tissue redistribution. Anthropometric indicators are used to evaluate the prognosis of chronic and acute diseases. Anthropometric measurements and nutritional status have been found to be related to age and gender in healthy people. (1-2)

The health of Indian women is intrinsically linked to their status in society, especially for those living in a rural area. Research into women's status in society has found that the contributions Indian women make to families are often overlooked. Instead they are often regarded as economic burdens and this view is common in rural areas of the northern belt.

### Aim of the Study

The aim of the study is to assess the anthropometric measurements and assessing the nutritional status of non working (25-40 years) women of rohtak district.

### Review of Literature

Mittal (2013) conducted a study on To Assess the Nutritional status and morbidity patterns Among Non- pregnant Non- Lactating Rural women of Reproductive age group (18-40 years) and reported that the mean BMI of the women was found to be 21.12 ( $\pm 3.7$ ) Kg/ m<sup>2</sup> with 25% of them being underweight and 16% being overweight and obese. The overall quality of food and nutrient intake was poor as the intake of all the food groups (Except fats, sugars and milk and milk products) was found to be much lower than their RDAs. The mean energy and protein intake was found to be 983.60 ( $\pm 309.6$ ) Kcal and 27.33( $\pm 8.2$ ) g, respectively which met only 50% of the nutrient requirements. Similarly, the intake of micronutrients was also found to be inadequate particularly of iron and folic acid which met only 37.8% and 11% of the RDAs respectively.

Damania and Machada (2014) conducted a study on Nutritional Assessment of Working and Non working Mother- A Pilot Study and reported that according to BMI 76.7% of the non working mothers were obese as compared to 50% of the working Mothers. Mean body fat of non-working mothers was 31.9% while that of working mothers was 29.5%. No significant difference in the BMI body fat percentage, total Body water and BMR were observed among the non- working and working mothers. Micronutrient composition of the working and non working mothers did not differ significantly ( $p > 0.05$ ). However, higher caloric and dietary fat intake

was observed among the working mothers. Skipping breakfast was a common habit among the working mothers. Also frequency of consumption of fast food with higher caloric and fat content was significant more among the working mothers as compared to non- working mothers ( $p < 0.005$ ). It was observed that time allocated by the mothers for child- care and household activities was significantly different for both the groups indicating lesser time spent with the child for the working mothers.

Parve et al (2015) conducted a study on Study Anthropometric Measurements and Body Somatotypes of women and reported that Average normal standing height of selected women was noted as 152.92 cm. Majority of the selected women (57.5%) were mesomorphic in body type. Higher percent of the selected women were having good physical fitness level.

Sen and Verma (2016) conducted a study on Assessment of Nutritional Status of Urban women of Maharashtra, India and reported that the overall underweight, normal and overweight and obesity prevalence in the population came out to be 8%, 48%, and 44% respectively. Association socioeconomic and other demographic factors having a statistical significance with BMI status in these women were type of family, Family income, level of education and their marital status. Age group of these respondents did not show a significant association with their BMI Status. In food habits, consumption of fruits and vegetables and junk food were significantly association with the BMI status of respondents. Types and rate of exercise these women opted for was also related to their BMI status. Consumption of alcohol did not show an association with their nutritional status. Relationship between BMI status and family history of medical condition was established which was statically proven.

**Table 1: Mean Anthropometric Measurements of Non Working Women (n=300)**

Anthropometric Parameter	Reference Value	Observed Value	z- value	% Reference Value
Height (cm)	152.92	160.16±4.67	26.81	104.73%
Weight (kg)	50	66.34±8.65	32.68	132.68%

Table 2 depicted that Majority (47.00%) of non working women were overweight followed by normal (40.00%) and obese (13.00%). Similarly in the study of Udaya and babitha (2014) reported that the normal BMI of the subjects were 15%, 46.5% were above normal, 31.5% were overweight and 6.5% were below normal. (10)

**Table 2: Mean Body Mass Index of Non Working Women (n=300)**

WHO Classification	Observed BMI
Under weight ≤ 16 – 18.0	-
Normal 18.5 – 24.9	120 (40.00%)
Over weight 25 – 29.9	141 (47.00%)
Obese ≥ 30 – 40	39 (13.00%)

## Material and Method

The present study was conducted on non working women in the age group of 25-40 years of Rohtak district. There are five blocks in Rohtak district i.e Rohtak city, Lakhan Majra, Meham, Kalanaur, and Sampla. Out of these Rohtak city and Kalanaur were selected purposively. In Kalanaur, mainly seven colonies i.e Mahavir Mohalla, Chotta Panna, Bada panna, Jat Colony, Chamar Colony, Saini Pura, Railway Colony are there. Out of these two colonies were selected by chit method. In Rohtak city, list of colonies in north, west, south and east were prepared. One colony out of each direction was selected randomly.

List of non pregnant & non working women in the age of 25-40 years was prepared from each selected colony. Fifty non working women from each colony were randomly selected. Thus total samples of 300 non working women were taken as per the above detail given.

Anthropometric measurements like weight, height, and waist hip measurements were taken. BMI waist hip ratio were calculated to assess the nutritional status of women. Anthropometric is one of the best method to assess the nutritional status. The data collected was analyzed by using standard statistical methods.

## Result & Discussion

The mean height of non working women was 160.16 which was significantly higher than reference value. Mean weight was 66.34 kg which was significantly higher than reference value and which was 132.68% and significantly higher than reference value. Whereas Hassan and Shukla (2012) reported that the mean weight and height were 46.29 kg, 147.28 cm. (3)

Mean Waist Hip Ratio of non working women depicted in Table 3. Majority (65.02%) of the women of age group 25-29 years were very high waist hip ratio followed by high (25.68%) moderate (8.19%) and low (1.09%). Almost similar per cent age of women in the age group of 30-40 years were very high and high category of mean hip ratio whereas 17.00% were moderate of mean hip ratio.

In comparison to findings of the present study, Mittal (2013) reported that the mean waist hip ratio i.e  $< 0.8$  was found to be 55% while 37% fell under 0.81-0.85 category and 8% were found to have  $> 0.85$ . (6)

**Table3: Mean Waist Hip Ratio of non working women (n=300)**

Reference value	25-29 years (n=183)	Reference value	30-40 years (n=117)
Low < 0.71	2 (1.09%)	Low < 0.72	1 (0.85%)
Moderate 0.71 - 0.77	15 (8.19%)	Moderate 0.72 - 0.78	20 (17.09%)
High 0.78 - 0.82	47 (25.68%)	High 0.79 - 0.84	48 (40.17%)
Very High >0.82	119 (65.02%)	Very High >0.84	48 (40.17%)

(Heyward VH, Stolarcy 2K LM 1996)

### Conclusion

The study reported that majority of non working women were having body weight, height thus higher BMI. This might be due to their faulty food habits and inadequate physical activity. Therefore they need to be educated regarding balance diet and good food habits which will make them healthy and ultimate whole family. They must know that physical activity is required for keeping fit and healthy.

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