

# Attitude of Women of Ahmedabad Towards Weight Gain Post-Menopause - An Observational Study

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## ABSTRACT

**Background:** Menopause is usually a cause of concern among women. Changes occur in the physical and mental health of women. Weight gain is commonly seen. The prevalence of obesity in postmenopausal women is linked to increased risk of morbidity and mortality and leads to the development of numerous obesity related health conditions. The aim of the study was to assess the attitude of weight gain in postmenopausal women.

**Method:** Cross-sectional study was conducted on women post-menopause (natural or surgical), aged more than 45 years using convenience sampling. Data was collected using a self-administered questionnaire. Institutional permission was taken for study. Descriptive analysis was done.

**Result:** Total 60 women completed the study, mean age ( $56.4 \pm 7.5$ ) years, with BMI of ( $28.9 \pm 5.4$ ) kg/m<sup>2</sup>. 39(65%) were housewives and 24(40%) were 5-10 years post menopause. About 45(75%) had natural menopause, 54(90%) had gained weight post menopause of which 19 (32%) had gained weight of around 2-5 kg and 19(32%) had gained weight of >5 kg. 17(28%) felt physical and mental exhaustion, Joint and muscular discomfort and reduction in physical strength. 31(52%) developed diabetes/ hypertension. 29(49%) were doing exercises for weight reduction but most were not very successful.

**Conclusion:** Weight gain is commonly seen post menopause and 50% women develop diseases like diabetes and hypertension.

**Keywords:** Post menopausal, Weight gain, Obesity.

## INTRODUCTION

Menopause is said to have occurred 12 months after the last menstrual period and marks the end of menstrual cycles. It usually begins between the ages of 45 and 55, but can develop before or after this age range. According to WHO, natural menopause takes place between 45 and 55 years of age for the women worldwide. It is generally accepted that the average age at menopause is about 51 years in industrialized countries, but in developing countries it ranges from 43 to 49 years.<sup>1-2</sup>

Weight gain during menopause is common. Obesity is one of the most important

disturbances associated with the menopause, being a medical, social, and economic problem.<sup>3</sup> It is largely due to hormonal changes that take place at this time. However, some other factors should also be taken into consideration. These include genetic as well as environmental factors, among which lifestyle changes (unhealthy diet, lack of physical activity), and illness (e.g. Cushing disease, hypothyroidism). The lack of estrogen is of crucial significance to the development of obesity and initiates the action of other involved factors.<sup>4</sup> Symptoms like night sweats are common right before,

during, and after menopause. Natural remedies can help in most cases.

The hormonal changes of menopause might make one more likely to gain weight around the abdomen than around the hips and thighs. Obesity is a major risk factor for diabetes mellitus and the cardiovascular diseases, coronary heart disease, infarction, stroke, and hypertension as muscle mass typically diminishes with age, while fat increases. Losing muscle mass slows the rate at which the body uses calories (metabolism). This can make it more challenging to maintain a healthy weight.<sup>5</sup> According to literature the radiological analysis showed that there was a significantly greater amount of facet degeneration and a trend for an increased amount of disc herniation in the spines from the obese group.<sup>6</sup> Thus weight gain and aging may lead to pain in the knees or back. Women realize this weight gain and take steps to reduce this weight. This study aims to find the perceptions about weight gain among post-menopausal women of Ahmedabad and their attitude towards weight gain if any.

## MATERIALS & METHODS

A cross-sectional study was conducted in November-December 2022, on women who were in their post-menopause phase. A self-administered questionnaire was prepared which collected the data of 60 women who had attained menopause using convenience sampling. Institutional permission was taken to conduct the study. Women were explained and informed about the aims of the study and were offered the opportunity to voluntarily complete the questionnaire. Written consent was obtained.

Participants were asked questions related to age, occupation, height and weight. In this study, women were asked about their menopause type (natural, surgical), whether they perceived to have gained weight after attaining menopause and the amount of weight gained. They were also asked about the problems faced by them because of the weight gain. They were asked if they

perceived mental and physical exhaustion, joint and muscular discomfort and decrease in physical strength. Questions also asked if they had developed hypertension or diabetes or any medical condition after menopause. They were asked if they were doing anything to lose their weight and if they were doing exercises was it helpful or not to see that they are going in the right direction to understand their attitudes towards the weight gain.

## STATISTICAL ANALYSIS

Descriptive Analysis was done.

## RESULT

Total 60 women completed the study with mean age ( $56.4 \pm 7.5$ ) years, and BMI of ( $28.9 \pm 5.4$ )  $\text{kg/m}^2$ . 39 (65%) were housewives and 24 (40%) were 5-10 years post menopause. About 45 (75%) had natural menopause, 54 (90%) had gained weight post menopause of which 19 (32%) had gained weight of around 2-5 kg, 19 (32%) had gained weight of  $>5$  kg and some were not aware about the weight gain as shown in figure 1. 17(28%) felt physical and mental exhaustion, Joint and muscular discomfort, and reduction in physical strength as shown in figure 2. 31(52%) developed diabetes/ hypertension. 29(49%) were doing exercises for weight reduction but most were not very successful.

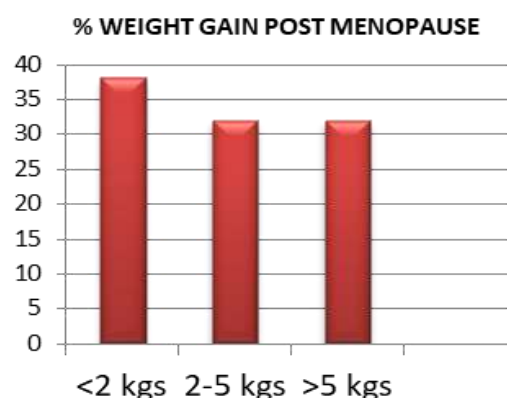


Figure 1: Weight gain post-menopause

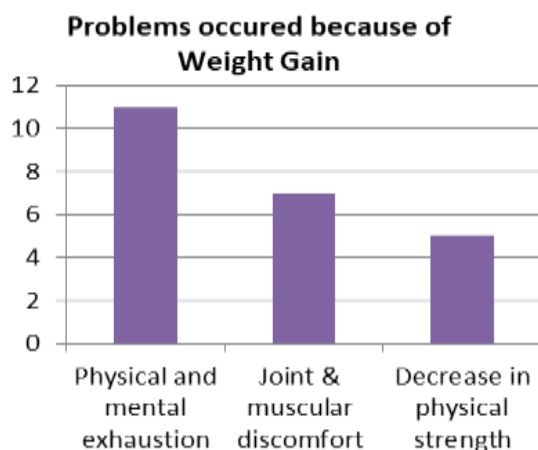


Figure 2: Problems due to weight gain

## DISCUSSION

Total 60 women completed the study, mean age ( $56.4 \pm 7.5$ ) years, with BMI of ( $28.9 \pm 5.4$ )  $\text{kg/m}^2$ . 39(65%) were housewives and 24(40%) were 5-10 years post menopause. About 45(75%) had natural menopause, 54(90%) had gained weight post menopause of which 19 (32%) had gained weight of around 2-5 kg and 19(32%) had gained weight of  $>5$  kg. 17(28%) felt physical and mental exhaustion, Joint and muscular discomfort, and reduction in physical strength. 31(52%) developed diabetes/ hypertension. 29(49%) were doing exercises for weight reduction but most were not very successful.

The present study found that 54(90%) had gained weight post menopause of which 19(32%) had gained weight of around 2-5 kg, 19(32%) had gained weight of  $>5$  kg. Women who have given the history of weight gain after the age of 40 were 52 (14.86%). According to a study done by Deotale about 44.85% complained of muscle and joint pain. Hirsutism was present in 5 (1.43%).<sup>7</sup> The incidence of obesity in the United States among women between 40 and 65 years is calculated as 65%, and among women over the age of 65 as almost 74%.<sup>8</sup> In a study done by Angela Gravena the prevalence of abdominal obesity was positively associated with age and parity. For women older than 65 years or who had three or more children, the prevalence of abdominal obesity was 74.4% and 68.5%, respectively.<sup>9</sup> The prevalence of

overweight and abdominal obesity were higher for postmenopausal women who had three or more children. Age over 65 years was also a risk factor for abdominal obesity and no use of hormonal replacement therapy was a risk factor for overweight.<sup>9</sup>

Here we found that 17(28%) women felt physical and mental exhaustion, joint and muscular discomfort, and reduction in physical strength. About 31(52%) had developed diabetes/ hypertension and 29(49%) were doing exercises for weight reduction but most felt that they were not very successful. Zukowski et al. studied the influence of sex, age, and BMI on the degeneration of the lumbar spine and they found that osteophyte severity in the lumbar spine increased with age for both genders and severity is increased with BMI for females, but not for males. So, they concluded that this is evidence for different sex biomechanical processes influencing osteophyte development and leading to pain.<sup>10</sup> Lifestyle modification by exercise and dietary calorie restriction are the mainstay of its management with pharmacotherapy and bariatric surgery being useful adjuncts. Obesity and visceral adiposity increase inflammatory markers and adipokines, leading to increased visceral adiposity leading to a variety of problems; from dyslipidemia and metabolic syndrome to increased risk of cardiovascular disease, malignancies, and mortality.<sup>11</sup> There is a need to acknowledge the obesity epidemic and the epidemiologic and physiologic factors that promote excess weight gain and understand the clinical assessment and diagnostic factors.<sup>5</sup>

No objective assessment of weight gain or evaluation of diet was done in the present study so the perception of weight gain is according to the participants. Another limitation is that we have not divided the sample according to age in decades i.e. not done stratified sampling to have equal representation of all age groups. Studies to increase awareness regarding methods to control weight and remain motivated to exercise and diet can be conducted as

women find it difficult to reduce the weight gained post- menopause.

## CONCLUSION

Weight gain is commonly perceived among women post-menopause and 50% women develop diseases like diabetes and hypertension after attaining menopause along with joint and muscular discomfort, and reduction in physical strength. The women were doing exercises for weight reduction but most were not very successful in reducing weight gained post-menopause.

### Declaration by Authors

**Ethical Approval:** Approved

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**Conflict of Interest:** The authors declare no conflict of interest.

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