



British Medical Journal Volume-2, No 1 10.5281/zenodo.6423884

British Medical Journal Volume 2, No 1., 2022

**Internet address:** http://ejournals.id/index.php/bmj

E-mail: info@ejournals.id

Published by British Medical Journal

Issued Bimonthly

3 knoll drive. London. N14 5LU United Kingdom

+44 7542 987055 Chief Editor

Dr. Fiona Egea

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## COMPARATIVE ANALYSIS OF THE RELATIONSHIP OF ABDOMINAL OBESITY WITH PHYSICAL ACTIVITY IN ELDERLY AND SENILE WOMEN

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**Abstract.** Elderly and senile age is one of the most important periods of human life, during which morphofunctional changes occur in the body. A decrease in physical activity, especially with age, leads to overweight in a person. Excess weight occurs due to the accumulation of adipose tissue in the body. Abdominal obesity occurs in people due to the fact that fats accumulate mainly in the abdomen and lower back. The presence of abdominal obesity is prognostically unfavorable, leading to serious life-threatening diseases

**Keywords:** elderly and senile age, waist circumference, physical activity.

**Introduction:** There is a growing scientific interest in the study of the problems of the elderly and the elderly in many countries around the world [1-7]. Population aging is observed in every country of the world today. The UN predicts that by 2025, the total number of people aged 60 and over will exceed 1.1 billion [8-12].

According to the World Health Organization (WHO), low levels of physical activity are one of the major health risk factors and one of the leading causes of death. According to them, they recommend the development of special measures to develop and promote normal physical activity for the elderly and people with minimal physical activity [13-17].

Targeted use of physical activity not only stops the decline of physical ability with age, but also allows to significantly expand the progressive development of individual abilities. Through regular exercise, the elderly and the elderly not only gain positive emotions, but also have a positive effect on their mental health and prevent age-related diseases [18-20].

**Objective:** To assess the relationship between waist circumference and physical activity in the elderly and the elderly.

**Materials and methods:** A total of 849 women aged 60 to 90 years participated in the study. Of these, 707 (83.2%) are elderly (60-74 years old) and 142 (16.8%) are elderly (75-89 years old). Anthropometric examinations and questionnaires were conducted in family clinics in Bukhara.

The criteria for assessing physical activity were based on:

- Inactive individuals mostly people who sit at home or do not engage in physical activity;
- Individuals with low levels of physical activity (PhA) —they are basically one 30 to 60 minutes of walking per day and physical during the day people who were not engaged in the activity were admitted;
- PhA average-level individuals those who walked 60 to 90 minutes a day or who were engaged in lifting and carrying light weights;

British Medical Journal Volume-2, No 1 10.5281/zenodo.6423884

- High-level PhA mostly people who walk more than 90 minutes a day or engage in physical activity;
- •Waist circumference was obtained with a centimeter tape with an accuracy of 0.5 cm. The measuring area is the thinnest area above the hip area and below the base of the chest, which is often the umbilical area or slightly above it. The examinee stood upright and a centimeter tape was placed in the umbilical area and rotated around the waist. The centimeter tape was flat horizontal, touching the skin. In men, the assessment of waist circumference (WC) is up to 94 cm normal, 95-102 cm overweight, 103 cm and more abdominal obesity. In the assessment of waist circumference (WC) in women up to 80 cm normal, 81-88 cm overweight, 89 cm and more abdominal obesity

**Results and analysis:** Elderly women had a waist circumference of 70 cm to 132 cm, an average of  $94.4 \pm 0.37$  cm, and 76 (10.7%) had a waist circumference of 70 cm to 80 cm (80 cm or less). average waist circumference was  $78.6 \pm 0.24$  cm, waist circumference was 81 cm to 88 cm in 152 (21.5%), waist circumference was  $85.7 \pm 0.11$  cm on average, and waist circumference was 89 in 479 (67.8%). cm to 132 cm (89 cm and larger) and averaged  $99.7 \pm 3.44$  cm.

A study of the effect of physical activity levels on waist circumference size in older women revealed the following:

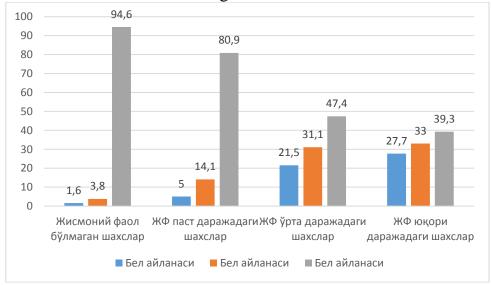


Figure 1. The effect of physical activity levels on waist circumference size in older women.

- A total of 184 physically inactive individuals with a waist circumference of 78cm to 132cm, averaging  $101.7 \pm 0.76$ cm. Of these, 3 (1.6%) had a waist circumference of 80 cm or less, ranging from 78 cm to 80 cm, with an average of  $79.3 \pm 0.84$  cm; In 7 (3.8%) the waist circumference ranged from 81 cm to 88 cm, with an average of  $85.6 \pm 1.06$  cm; In 174 (94.6%), the waist circumference was found to be 89 cm to 132 cm, with an average of  $101.7 \pm 0.76$  cm.
- A total of 220 people with low levels of physical activity, their waist circumference ranged from 77 cm to 131 cm, with an average of  $95.7 \pm 0.65$  cm. Of these, 11 (5.0%) had a waist circumference of 77 cm to 80 cm, with an average of  $79.3 \pm 1.26$  cm; In 31 (14.1%) the waist circumference ranged from 81 cm to 88 cm,

with an average of  $86.0 \pm 0.31$  cm; In 178 (80.9%), the waist circumference was found to be 89 cm to 131 cm, with an average of  $98.4 \pm 0.59$  cm.

- A total of 209 elderly women with moderate physical activity, their waist circumference ranged from 70 cm to 115 cm, with an average of  $88.2 \pm 0.54$  cm. Of these, 45 (21.5%) had a waist circumference of 70 cm to 80 cm, with an average of  $78.4 \pm 0.34$  cm; In 65 (31.1%), the waist circumference ranged from 81 cm to 88 cm, with an average of  $85.7 \pm 0.16$  cm; In 99 (47.4%), the waist circumference was found to be 89 cm to 115 cm, with an average of  $96.8 \pm 0.60$  cm.
- A total of 94 elderly women with high levels of physical activity, their waist circumference ranged from 72 cm to 117 cm, with an average of  $90.4 \pm 0.95$  cm. Of these, 26 (27.7%) had a waist circumference of 72 cm to 80 cm, an average of  $78.6 \pm 0.56$  cm, and 31 (33.0%) had a waist circumference of 81 cm to 88 cm, an average of  $85.5 \pm 0$ , 31 cm, 37 (39.3%) had a waist circumference of 89 cm to 117 cm, with an average of  $98.0 \pm 0.92$  cm.

Older women had a waist circumference of 74 cm to 116 cm, an average of  $89.8 \pm 0.67$  cm, and 28 (19.7%) had a waist circumference of 74 cm to 80 cm (80 cm and less), an average of  $78.4 \pm 0.29$  cm,

In 52 (36.6%) waist circumference ranged from 81 cm to 88 cm, with an average of  $85.2 \pm 0.22$  cm, and in 62 (43.7%) waist circumference ranged from 89 cm to 116 cm (89 cm and larger)., averaged  $98.8 \pm 0.73$  cm.

A study of the effect of physical activity levels on waist circumference size in older women revealed the following:



Figure 2. The effect of physical activity levels on waist circumference size in older women.

- A total of 43 inactive people, their waist circumference ranged from 79 cm to 116 cm, with an average of  $96.4 \pm 1.30$  cm. Of these, 2 (4.6%) had a waist circumference of 80 cm or less, ranging from 79 cm to 80 cm, with an average of  $79.5 \pm 0.89$  cm; In 11 (25.6%), the waist circumference ranged from 81 cm to 88 cm, with an average of  $86.6 \pm 0.70$  cm; In 30 (69.8%), the waist circumference was found to be 89 cm to 116 cm, with an average of  $101.1 \pm 1.22$  cm.

- A total of 68 people with low levels of physical activity, their waist circumference ranged from 74 cm to 116 cm, with an average of  $89.1 \pm 1.09$  cm. Of these, 13 (19.1%) had a waist circumference of 74 cm to 80 cm, with an average of  $78.4 \pm 0.52$  cm; In 24 (35.3%), the waist circumference ranged from 81 cm to 88 cm, with an average of  $84.8 \pm 0.38$  cm; In 31 (45.6%), the waist circumference was found to be 89 cm to 116 cm, with an average of  $96.9 \pm 1.19$  cm.
- A total of 29 elderly women with moderate physical activity, their waist circumference ranged from 75 cm to 90 cm, with an average of  $82.3 \pm 0.71$  cm. Of these, 12 (41.4%) had a waist circumference of 75 cm to 80 cm, with an average of  $78.2 \pm 0.46$  cm; In 16 (55.2%), the waist circumference ranged from 81 cm to 88 cm, with an average of  $84.9 \pm 0.51$  cm; In 1 (3.4%) the waist circumference was found to be 90 cm.
- A total of 2 elderly women with high levels of physical activity, with a waist circumference of 79 cm to 82 cm, an average of  $80.5 \pm 2.66$  cm. Of these, 1 (50.0%) had a waist circumference of 79; In 1 (50.0%) the waist circumference was found to be 82 cm.

Conclusion From the above data, it can be seen that physical activity is a factor that directly affects the indicators of physical development of the organism. With increasing physical activity, the accumulation of adipose tissue decreases in older and elderly women. Also, abdominal obesity is less common in the elderly than in older women.

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