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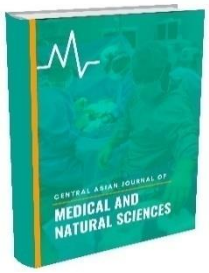

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The Combination of Components of the Metabolic Syndrome in Women of Childbearing Age and Their Relationship with Age

1. **Kayumov U. K.**
2. **Matmuratova S. O.**
3. **Khatamova D. T.**
4. **Saipova M. L.**
5. **Musaeva Sh. Z.**

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Abstract: Evidence of a relationship between blood pressure levels and body weight was examined. A correlation has been found between blood pressure and body weight, which increase with age. The data obtained can be useful in assessing and monitoring the health status of women of childbearing age, as well as in planning therapeutic and preventive measures.

Key words: fertile age, metabolic syndrome.

Under observation were 169 women aged 15 to 49 years. At the same time, the data obtained in the study of a representative sample (929 people) of the unorganized female population of childbearing age (from 15 to 49 years) conducted in Tashkent were analyzed.

The following methods were used in the work: epidemiological, review, biochemical and instrumental.

The most dangerous conditions include a combination of components of the metabolic syndrome. However, it is important that there is a correlation between the studied factors. It is also important to know the dynamics of these associations with age, since they together significantly increase the risk of cardiovascular disease.

In this regard, the relationship between blood pressure and body weight in women of childbearing age at different ages has been studied.

The relationship between blood pressure and Quetelet indices was studied using Pearson's correlation coefficient for mean systolic blood pressure (SBP), diastolic blood pressure (DBP) and the Quetelet index of height and body weight. A strong and significant correlation was established between the levels of SBP and DBP in women of childbearing age (15–49 years) in general (Table 1). The correlation between SBP and DBP and Quetelet indices was moderately strong. However, these relationships had a high level of trust. The data obtained reflect the relationship between blood pressure and body weight in general in all surveyed women of childbearing age (15-49 years).

Table 1. The relationship between blood pressure and body weight in women aged 15–49 years.

Statistical processing indicators		SBP	DBP	Index Quetelet
Correlation coefficient Significance level R	SBP	-	0,771 <0,0001	0,352 <0,0001
Correlation coefficient Significance level R	DBP	0,771 <0,0001	-	0,373 <0,0001
Correlation coefficient Significance level R	Index Quetelet	0,352 <0,0001	0,373 <0,0001	-

At the same time, the ratio of these indicators in different age groups is of particular interest. In table. 2 shows the correlation between blood pressure and body weight in the age group of women from 15 to 19 years. In women of this age, the correlation coefficients between SBP and DBP indicate that there is a strong correlation and that these correlations are highly reliable.

Table 2. Relationship between blood pressure and body weight in women aged 15–19 years

Statistical processing indicators		SBP	DBP	Index Quetelet
Correlation coefficient Significance level r		-	0,534 0,0010	0,067 0,7040
Correlation coefficient Significance level r	DBP	0,534 0,0010		0,284 0,0984
Correlation coefficient Significance level r	Index Quetelet	0,067 0,7040	0,284 0,0984	-

Among women aged 15–19 years, body weight had a weak correlation with poor scores, and this relationship was not statistically significant. The correlation coefficient between DBP levels and the Quetelet index indicates a correlation. However, this relationship is not statistically significant.

All correlations between the studied parameters in women aged 20–29 is of a statistical nature. (Table 3). However, a strong and reliable relationship was found between SBP and DBP. There was a moderate correlation between the Quetelet index and blood pressure levels, and this relationship was of high statistical significance.

Table 3. Relationship between blood pressure and body weight in women aged 20 to 29 years

Statistical processing indicators		SBP	DBP	Index Quetelet
Correlation coefficient significance level r	SBP	-	0,670 <0,0001	0,259 <0,0001
Correlation coefficient significance level r	DBP	0,670 <0,0001	-	0,272 <0,0001
Correlation coefficient significance level r	Index Quetelet	0,259 <0,0001	0,272 <0,0001	

In women aged 30–39 years, the correlation coefficients between SBP and DBP levels show a strong correlation of these indicators. In addition, this level of connection is very reliable. A statistically significant relationship was also found between body weight and SBP and DBP levels.

It should be noted that the value of all identified correlation coefficients in women aged 30–39 years was higher than in young women (20–29 years).

Table 4. Relationship between blood pressure and body weight in women 30–39 years old.

C. Statistical performance		SBP	DBP	Index Quetelet
Correlation coefficient Significance level r	SBP	-	0,742 <0,0001	0,291 <0,0001
Correlation coefficient Significance level r	DBP	0,742 <0,0001	-	0,303 <0,0001
Correlation coefficient Significance level r	Index Quetelet	0,291 <0,0001	0,303 <0,0001	-

The highest values of correlation coefficients between groups under consideration were detected in women aged 40-49 years (Table 5). The correlation coefficient for SBP and DBP levels in this group was 0.816 and reflected a strong relationship. However, the values of the correlation coefficients showed the average strength of the relationship between the Quetelet indices and BP indices (0.336 for SBP and 0.371 for DBP).

Table 5. Relationship between blood pressure and body weight in women aged 40–49 years.

Statistical processing indicators		SBP	DBP	Index Quetelet
Correlation coefficient Significance level r	SBP	-	0,816 <0,0001	0,336 <0,0001
Correlation coefficient Significance level r	DBP	0,816 <0,0001	-	0,371 <0,0001
Correlation coefficient Significance level r	Index Quetelet	0,336 <0,0001	0,371 <0,0001	-

It should be noted that all identified correlations are statistically significant (P<0.0001).

Thus, the data obtained indicate the presence of a direct and significant relationship between the level of blood pressure and body weight. The conjuncture of the studied indicators is specific for all age groups. However, the correlation between blood pressure and body weight increases with age. There is also an increase in the correlation between systolic and diastolic blood pressure. The data obtained can be useful in assessing and monitoring the health status of women of childbearing age, as well as in planning therapeutic and preventive measures for these components of the metabolic syndrome.

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