

## WIFE - THE IMPORTANCE OF INVOLVING GIRLS IN PHYSICAL EDUCATION AND SPORTS ACTIVITIES

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**ANNOTATION.**In all regions of our country, measures to involve the population in physical education and sports, to strengthen their health, are being implemented rapidly. Including women's physical training and sports to make them physically mature and healthy, regular observance of a healthy lifestyle is the relevance of the topic. At the beginning of the research carried out in this article, taking into account the age and physical development characteristics of women and girls, the results of determining the level of physical activity through general, special and general development exercises and their discussion are presented.

**KEYWORDS:**sports, family upbringing, physical exercise techniques, anthropometric indicators, gymnastics.

**The purpose of the study.** Development of a set of special exercises designed to be used by women and girls, taking into account the functional state of the body, in health training sessions conducted with them, and implementing it It consists in analyzing the data obtained at the beginning of application and pedagogical experience.

### **Tasks of research:**

1. Summarizing and analyzing the materials of available scientific methodological literature on women's physical fitness.
2. Study of women's physical fitness and functional condition.
3. Experimental determination of the effectiveness of the special set of exercises developed on the level of physical fitness and physical development of women.

**Research methods:** in accordance with the objectives of the work, summarization and analysis of existing scientific and methodical literature materials, pedagogical observation, pedagogical experience, conducting control tests, mathematical and statistical analysis methods were used.

**The degree of study of the problem.** The analysis of scientific-methodological literature and the scientific research of experts on the level of women's health and some aspects and structure of factors that have a positive effect on it [7, 10] show that, firstly, most of these programs due to their structure or the use of different devices because it is highly mobile and overloads the back, which has been shown to cause exercisers to become fatigued or bored in a relatively short amount of time during training. These two factors together optimize the loadings and lead to a significant decrease in the probability that the participants will show their potential to the maximum. Therefore, there is a great need for research that allows to quantitatively evaluate the positive effect of physical loads in new programs on the body of the participants, taking into account the functional state of the participants. will be. The results of such studies allow for the formation of methodological approaches and practical recommendations for managing loads in the organization of training using various special exercises [11].

Changes in organs and tissues during the aging processes in the body of women are influenced by the external environment [1]. Changes at the age of 30-40 are a physiological process, and according to most scientists, they are not considered a disease, but they lead to a limitation of the body's functional ability and a decrease in its resistance to external harmful factors. In addition, aging is a biologically degradable process, in which the body's ability to adapt becomes limited, various pathological changes develop, and the process of death of a woman occurs [8, 9].

Multicellular organisms undergo certain biological and functional changes during their life. These changes are manifested in their appearance as age passes. In a 30-40-year-old person, the skin of the face is dry, wrinkled, dull, pale, and as a result of thinning, the veins under the skin are visible. The hair on the head is gray and sparse, the eyes are without light, there are no teeth in the mouth, the spine is bent, and the movements are weak. These signs are signs of old age. The function of the organs of sight and hearing decreases in old age. A 30-40-year-old man often has a tantrum. Height and weight also decrease. Between the ages of 50-85, men's height decreases by at least 3 centimeters, and women's height decreases by 4 centimeters. Normally, the body weight in men is 40 years old and in women 50 years old.

The terms physiological and premature aging are widely used in the literature. Physiological aging is defined as the gradual development and natural onset of aging changes, limiting the ability to adapt to the environment [7].

Various pathological processes that lead to rapid aging of women and girls, and the reasons for the early appearance of signs of old age at a young age are well known to experts. Some diseases cause a woman to look older than her age. These include atherosclerosis, ischemic heart disease, diabetes, hypothyroidism, and obesity.

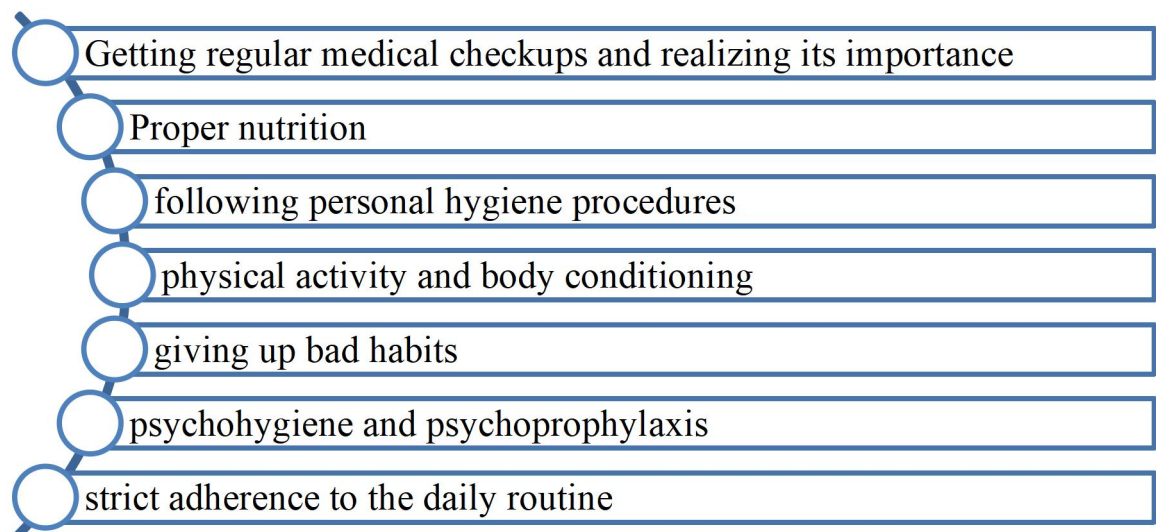
One of the main issues of the sciences devoted to the age of 30-40 is to learn whether the aging process is a normal, physiological state or a disease. Galen said that "old age is not a

disease, but a special state of the organism, but not the health characteristic of youth." He considered old age to be between health and sickness. Seneca emphasized that "old age is useless."

I.X. Vakhitov, I.D. Sitdikova, L.E. According to Alyasheva [3], old age is early and late only due to biological reasons, it is always on time, only death is untimely.

L.I. According to Slonimskaya [8], physiological aging is defined as a slow-developing natural aging that limits the ability of the organism to adapt to the external environment and increases the probability of death.

Ivanitsky, A.V. [4] stated that a healthy lifestyle is of particular importance as a factor in strengthening the health of 30-40-year-olds, and health is interpreted as a socio-psychological category as a result of this.



In addition to the factors listed in this scheme, some research scientists also note that during the activities of women and girls, a healthy relationship (communication) with the environment and attention to the level of health (values) is no less important than the above-mentioned organizing components. 'emphasized.

Body circumference measurements of women (Bust circumference - BC, Waist circumference - WA, Hip circumference - TA, Hip circumference - SA, Hip circumference - BA) were taken using a measuring tape with an accuracy of 1 mm.

### **Pedagogical experience**

The pedagogical experiment was conducted from September 2021 to September 2024. Women aged 30-40 participated in it.

Group form of training. In the process of forming groups for training, the composition of each physical culture session, in accordance with hygienic requirements, consisted of three parts:

preparatory, main and final. In the preparatory part of the training (duration 10-15 minutes), you completed a set of gymnastic exercises to prepare muscles and joints for the loads in the main part and exercises that stimulate the activity of the aerobic system. In the main part of the training (duration 35 minutes), general training stimulating microcycles, aerobic dances and exercises for the development of strength (with the weight of external objects, with your own weight), venous body, isometric) and flexibility combined with stretching exercises for the development of muscle groups for the development of various strength endurance. The exercise technique is suitable for women of this age group and is the best prevention of joint diseases. In the final part of the lessons (duration 10-15 minutes), relaxation and recovery exercises, stretching elements (for stretching different muscle groups), breathing exercises were performed. When compiling the program, the opinions of those who participated in the selection of exercises were also taken into account. Strength gymnastics exercises have their own characteristics and a diverse set of tools, while they help to improve the functional state of the spine and respiratory system, physical fitness and mental state.

Moslashuvchanlikni rivojlantirish uchun statik cho'zish usuli (cho'zish). Bunday holda, mashqning yakuniy pozitsiyasi 15-30 soniya davomida saqlanishi kerak. Jismoniy mashqlar texnikasi ushbu yosh guruhidagi ayollar uchun mos keladi va qo'shma kasalliklarning eng yaxshi oldini olish hisoblanadi. Darslarning yakuniy qismida (davomiyligi 10-15 daqiqqa) dam olish va tiklash mashqlari, cho'zish elementlari (turli mushak guruhlarini cho'zish uchun), nafas olish mashqlari bajarildi. Dasturni tuzishda mashqlarni tanlashda ishtirok etganlarning fikrlari ham hisobga olindi, Kuch gimnastikasi mashg'ulotlari o'ziga xos xususiyatlarga va turli xil vositalar to'plamiga ega, shu bilan birga ular umurtqa pog'onasi va nafas olish tizimining funktsional holatini, jismoniy tayyorgarligini va ruhiy holatini yaxshilashga yordam beradi. Moslashuvchanlikni rivojlantirish uchun statik cho'zish usuli (cho'zish), Bunday holds, mashqning yakuniy pozitsiyasi 15-30 soniya davomida saqlanishi kerak.

### **Organization of pedagogical research.**

The study was conducted in several stages:

Stage 1 (September 2021-February 2022) - study of literature sources on the problem through theoretical analysis and generalization. Conducting a questionnaire survey. Control and experimental groups were formed and the initial (at the beginning of the experiment) results were recorded on the selected tests.

Stage 2 (March-June 2022) - control tests and pedagogical observations were conducted.

Stage 3 - (March 2022 - September 2024) included the organization (retesting) and conduct of the final part of the pedagogical experiment. The participants of the experiment (women aged 30-40) were conditionally divided into control (NG) and experimental groups (TG) of 14 people each. (September 2024-November 2024) - work was carried out to summarize, analyze, mathematically and statistically process, discuss, interpret, draw conclusions, and formalize the experimental results.

**Preliminary results and discussion of a pedagogical experiment conducted to study the importance of involving women and girls in physical education and sports activities.**

In order to study and compare the anthropometric indicators of 30-40-year-old female medical workers at the beginning of the pedagogical experiment in the 41st Family Polyclinic of the Ahangaran district of the Tashkent region: Analysis of source materials aimed at studying the mobility and readiness of female medical workers; The anthropometric parameters of the body of these female test subjects at the beginning of the experiment were compared using the following methods: Analysis of literature materials; Pedagogical experiment and mathematical statistical analysis methods.

Data on the anthropometric indicators of 30-40-year-old female medical workers at the beginning of the pedagogical experiment, their main statistical characteristics, and statistical reliability estimates based on calculating the critical values of the Student's distribution of the absolute difference between the arithmetic mean values of the results are presented in Table 1.

**Table 1.**

**Anthropometric indicators of 30-40-year-old female medical workers belonging to the control (NG, n=14) and experimental (TG, n=14) groups at the beginning of the experiment**

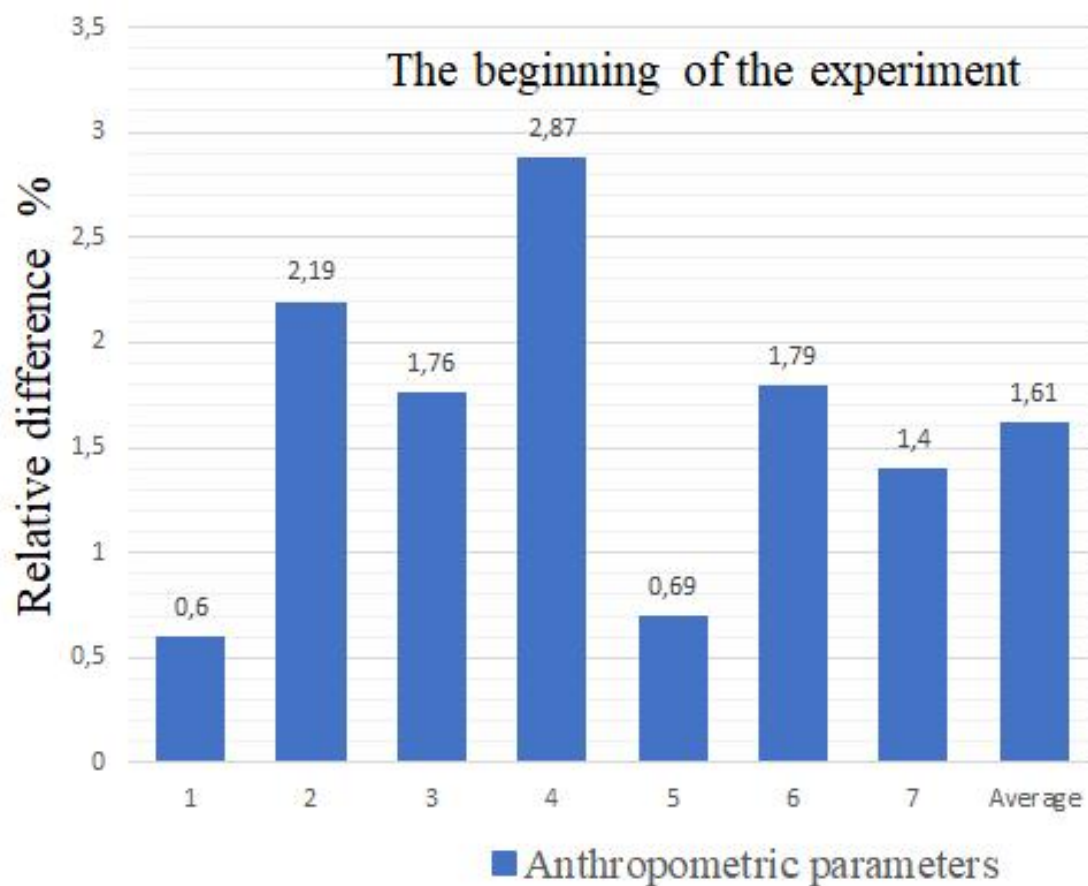
№	Control group			Experiment group			Relative difference %	t	P
	$\bar{X}$	$\sigma$	V, %	$\bar{X}$	$\sigma$	V, %			
1.	95,21	7,74	8,13	95,79	7,40	7,73	0,60	0,20	>0,8
2.	32,57	2,85	8,74	31,86	2,91	9,12	2,19	0,66	>0,5
3.	24,36	1,78	7,31	23,93	2,06	8,59	1,76	0,59	>0,5
4.	24,93	1,64	6,58	24,21	1,93	7,97	2,87	1,06	>0,2
5.	72,36	3,54	4,90	72,86	3,82	5,24	0,69	0,36	>0,7
6.	35,93	3,47	9,67	36,57	3,20	8,76	1,79	0,51	>0,6
7.	35,64	3,08	8,64	36,14	2,82	7,81	1,40	0,45	>0,6

Note: For convenience, the parameters are defined as follows: 1- chest circumference at rest, cm.; 2- neck circumference, cm.; 3- left wrist circumference, cm.; 4- right wrist circumference, cm.; 5- waist circumference, cm.; 6- left calf circumference, cm.; 7- right calf circumference, cm.

Summarizing and analyzing the data presented in the table, it can be seen that at the beginning of the pedagogical experiment, the smallest relative difference in the control group was equal to 0.60% in indicator 1, while the largest relative difference was observed in indicator

4, which was 2.87%. The average relative difference in the studied parameters at the beginning of the experiment was 1.61% (see the diagram in Figure 1).

At the same time, it was found that the arithmetic mean values of the anthropometric indicators of NG and TG 30-40-year-old female medical workers at the beginning of the experiment changed statistically insignificantly at different levels of significance (between  $t=0.20$  and  $t=1.06$  and in the interval  $P > 0.8$  and  $P > 0.2$ ).



**Figure 1. Diagram of relative differences in the arithmetic mean values of anthropometric indicators of 30-40-year-old female medical workers belonging to the control and experimental groups at the beginning of the experiment (in percent)**

Thus, the relative differences in the average arithmetic values of the anthropometric indicators of 30-40-year-old female medical workers of the control and experimental groups, presented in the table and diagram, and recorded at the beginning of the experiment, are on average 1.61%, the coefficients of variation calculated for the results of NG and TG are between the values  $V=4.90\%$  and  $V=9.67\%$ , and these values are located in the initial positive part of the good section of the gradation, which confirms the methodologically correct organization of the pedagogical experiment. At the beginning of the study, the anthropometric indicators of 10-11-year-old girls in the Health-improving group of the Sports School of the

Ahangaron district of the Tashkent region were also studied and compared at the beginning of the pedagogical experiment.

This included an analysis of source materials aimed at studying the mobility and fitness of 10-11-year-old girls in the health-improving group of a sports school; a comparative study of the anthropometric parameters of the body of these female test subjects at the beginning of the experiment, and an analysis of literature materials; using pedagogical experimental and mathematical statistical analysis methods.

The anthropometric indicators of 10-11-year-old girls in the health-improving group of a sports school at the beginning of the pedagogical experiment, their main statistical characteristics, and statistical reliability estimates based on calculating the critical values of the Student distribution of the absolute difference of the arithmetic mean values of the results are presented in Table 2.

**Table 2.**

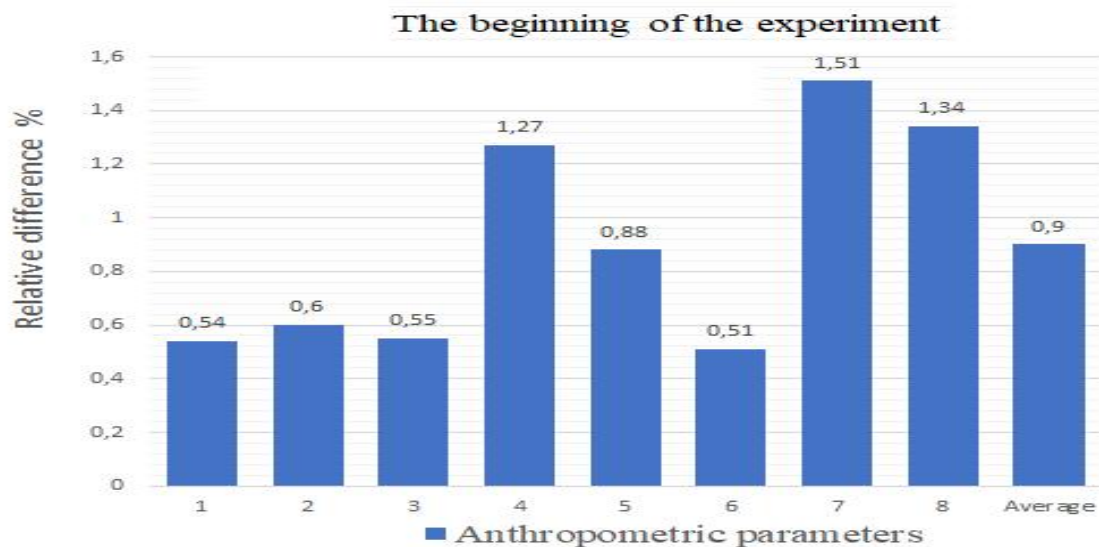
**Anthropometric indicators of 10-11-year-old girls in the Sports School's Health-improving group belonging to the control (CG, n=14) and experimental (TG, n=14) groups at the beginning of the experiment**

Test t.r.	Control group			Experiment group			Nisbiy farq %	t	P
	$\bar{X}$	$\sigma$	V, %	$\bar{X}$	$\sigma$	V, %			
1	65,79	4,35	6,62	65,43	4,18	6,39	0,54	0,24	>0,8
2	71,64	4,03	5,63	71,21	3,89	5,46	0,60	0,31	>0,7
3	64,57	5,02	7,77	64,21	4,76	7,41	0,55	0,21	>0,8
4	22,57	2,68	11,88	22,29	2,55	11,46	1,27	0,31	>0,7
5	16,21	1,97	12,14	16,07	2,06	12,79	0,88	0,20	>0,8
6	70,21	7,23	10,30	70,57	7,52	10,66	0,51	0,14	>0,8
7	37,86	4,52	11,94	37,29	4,27	11,45	1,51	0,37	>0,7
8	26,57	3,27	12,33	26,21	3,31	12,62	1,34	0,31	>0,8

Note: for convenience, the parameters are defined as follows: 1- chest circumference at rest, cm.; 2- chest circumference during inhalation, cm.; 3- chest circumference during exhalation, cm.; 4- shoulder circumference, cm.; 5- wrist circumference, cm.; 6- thigh circumference, cm.; 7- calf circumference, cm.; 8- pelvis width, cm.

Summarizing and analyzing the data presented in the table, it can be seen that at the beginning of the pedagogical experiment, the smallest relative difference in the control group was equal to 0.51% in indicator 6, while the largest relative difference was observed in indicator 7, which was 1.51%. The average relative difference in the studied parameters at the beginning of the experiment was 0.90% (see the diagram presented in Figure 2).

At the same time, it was found that the average arithmetic values of the anthropometric indicators of 10-11-year-old girls in the Health-improving group of the NG and TG Sports Schools at the beginning of the experiment changed statistically insignificantly at different levels of significance (between  $t=0.14$  and  $t=0.37$  and in the interval  $P>0.8$  and  $P>0.7$ )



**Figure 2. Diagram of the relative differences in the arithmetic mean values of anthropometric indicators of 10-11-year-old female athletes belonging to the control and experimental groups at the beginning of the experiment (in percent)**

Thus, the relative differences in the arithmetic mean values of the anthropometric indicators of 10-11-year-old girls in the Health-improving group of the Sports School, which are presented in the above table and diagram, and also noted at the beginning of the experiment, are on average 0.90%, the coefficients of variation calculated for the results of NG and TG are between the values  $V=5.46\%$  and  $V=12.79\%$ , and the fact that these values are located in the positive parts of the good and satisfactory sections of the gradation is considered to be a confirmation once again that the pedagogical experiment was methodologically correct.

Also, data on the physical fitness indicators of 30-40-year-old female medical workers of the 41st Family Polyclinic of the Ahangaran district of the Tashkent region at the beginning of the pedagogical experiment, their main statistical characteristics, and statistical reliability estimates based on calculating the critical values of the Student distribution of the absolute difference of the arithmetic mean values of the results are presented in Table 3.

**Table 3**

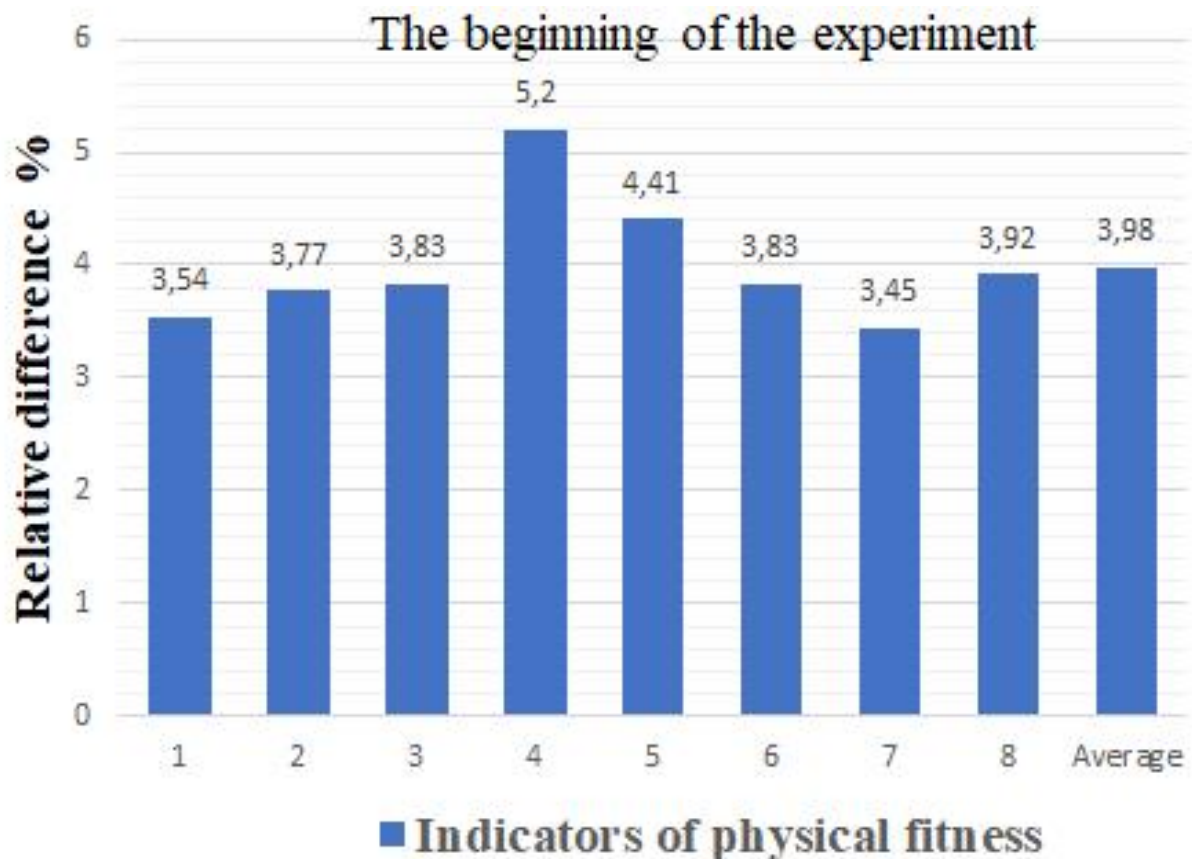
Comparison of physical fitness indicators at the beginning of the experiment of 30-40-year-old female medical workers belonging to the control (CG, n=14) and experimental (TG, n=14) groups

Test t.r.	Control group			Experiment group			The difference		t	P
	$\bar{X}$	$\sigma$	V %	$\bar{X}$	$\sigma$	V %	Abso lute	relative %		
1-	13,27	1,41	10,63	13,74	1,51	10,99	0,47	3,54	0,85	>0 ,4
2-	8,75	1,11	12,69	9,08	1,18	12,95	0,33	3,77	0,76	>0 ,4
3	6,26	0,72	11,55	6,02	0,78	12,96	0,24	3,83	0,84	>0 ,4
4	3,14	0,39	12,52	2,98	0,39	12,99	0,16	5,10	1,09	>0 ,2
5	7,26	0,84	11,53	6,94	0,83	11,96	0,32	4,41	1,02	>0 ,3
6	127,87	14,03	10,97	122,97	13,49	10,97	4,90	3,83	0,94	>0 ,3
7	18,82	2,17	11,53	18,17	2,17	11,94	0,65	3,45	0,79	>0 ,4
8	3,06	0,38	12,55	2,94	0,38	12,93	0,12	3,92	0,83	>0 ,4

For convenience, conditionally, in Table 3 and in the diagram in Figure 2, the indicators of physical fitness are indicated in the following order: 1- Time to run a distance of 60 m., s.; 2- Time to run a shuttle run for a distance of 3x10 m., s.; 3- Bending the arms while lying on the hands (times); 4- Bending forward without bending the knees while standing, cm.; 5- Lifting the legs until a right angle is formed while hanging on the gymnastic wall, (times); 6- Long jump from a standing position (cm.); 7- standing high jump, (cm.) and 8- bending forward while sitting with legs together (cm.).

Summarizing and analyzing the data presented in the table, it can be seen that at the beginning of the pedagogical experiment, the largest relative difference between the control and experimental groups was observed in indicator 4 and was equal to 5.61%, while the largest relative difference was observed in indicator 7, which was 3.45%. It was found that the average

relative difference in the studied parameters at the beginning of the experiment was 3.98% (see the diagram in Figure 3).



**Figure 3. Diagram of the dynamics of relative growth of the arithmetic mean values of physical fitness indicators of 30-40-year-old female medical workers belonging to the control and experimental groups during the experiment (in percent)**

At the same time, it was found that the arithmetic mean values of the physical fitness indicators of NG and TG 30-40-year-old female medical workers at the beginning of the experiment changed statistically insignificantly at different levels of significance (between  $t=0.79$  and  $t=1.09$  and in the interval  $P > 0.4$  and  $P > 0.2$ ).

At the same time, the fact that the numerical values of the coefficients of variation calculated in NG and TG at the beginning of the experiment are in the interval  $V=10.63\%$  and  $V=12.99\%$ , as well as the fact that these values are located in the positive part of the satisfactory section of the gradation, is evidence of the methodologically correct organization of the pedagogical experiment.

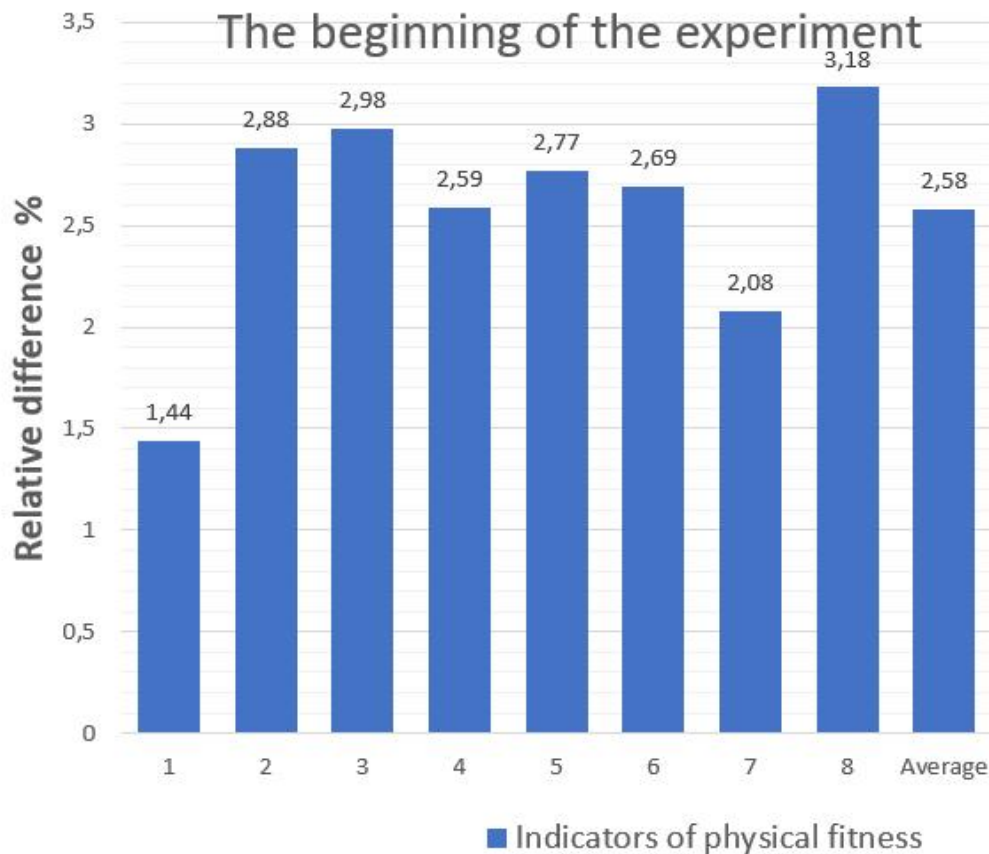
The data on the physical fitness indicators of 10-11-year-old girls in the Health-improving group of the sports school at the beginning of the pedagogical experiment, their main statistical characteristics and statistical reliability estimates based on the calculation of the critical values of the Student distribution of the absolute difference of the arithmetic mean values of the results are presented in Table 4.

Table 4

Comparison of physical fitness indicators at the beginning of the experiment of 10-11-year-old female medical workers belonging to the control (CG, n=14) and experimental (TG, n=14) groups

Test t.r.	Control group			Experiment group			Farqi		t	P
	$\bar{X}$	$\sigma$	V %	$\bar{X}$	$\sigma$	V %	Abso lute	Abso lute		
1-	18,77	2,17	11,56	19,04	2,27	11,92	0,27	1,44	0,34	>0,6
2-	9,37	1,18	12,59	9,64	1,25	12,97	0,27	2,88	0,63	>0,5
3	6,04	0,64	10,60	5,86	0,64	10,96	0,18	2,98	0,79	>0,4
4	4,24	0,45	10,61	4,13	0,45	10,94	0,11	2,59	0,69	>0,4
5	7,21	0,83	11,51	7,01	0,78	11,13	0,2	2,77	0,70	>0,4
6	112,24	14,07	12,54	109,22	14,11	12,92	3,02	2,69	0,61	>0,5
7	16,37	1,89	11,55	16,03	1,92	11,98	0,34	2,08	0,50	>0,6
8	2,83	0,36	12,58	2,74	0,36	12,96	0,09	3,18	0,72	>0,4

Summarizing and analyzing the data presented in this Table, it can be seen that the smallest relative difference between the control and experimental groups at the beginning of the pedagogical experiment was 1.44% in indicator 1, while the largest relative difference was observed in indicator 7, which was 3.18%. The average relative difference in the studied parameters at the beginning of the experiment was 2.58% (see the diagram in Figure 4).



**Figure 4. Diagram comparing the arithmetic mean values of physical fitness indicators of 10-11-year-old female athletes from the control and experimental groups and their relative growth during the experiment (in percent)**

At the same time, it was found that the average arithmetic values of the anthropometric indicators of 10-11-year-old girls in the Health-improving group of the NG and TG Sports School at the beginning of the experiment changed statistically insignificantly at different levels of significance (between  $t=0.34$  and  $t=0.79$  and in the interval  $P>0.4$  and  $P>0.6$ ).

Thus, the relative differences in the arithmetic mean values of the anthropometric indicators of 10-11-year-old female athletes of the control and experimental groups, presented in the table and diagram, and also noted at the beginning of the experiment, are on average 2.58%, the coefficients of variation calculated for the results of NG and TG are between the values

$V=10.60\%$  and  $V=12.98\%$ , and the fact that these values are located in the initial positive part of the good section of the gradation is considered to be confirmation of the methodologically correct organization of the pedagogical experiment.

## CONCLUSIONS

1. The generalization and analysis of the available scientific and methodological, special literature and periodical materials made it possible to draw the following conclusions:

- currently, the preservation and strengthening of health, the prevention of various diseases, the improvement of physical education and health-improving work with the population are of particular social importance;

- the basis for further health improvement of women should be a healthy lifestyle, increased physical activity, self-awareness in all spheres of life;

Analyzing studies on the use of health-improving types of gymnastics in the physical education of women in the second period of puberty, we can conclude that most of the data were obtained when studying narrow areas of health-improving gymnastics, fitness yoga, aerobics. There are much fewer studies on the complex use of health-improving types of gymnastics, strength types of gymnastics, stretching types, which are an affordable and effective means of physical education for some women, but they are not used in practice. Analysis of the research problem confirmed the need to find ways to widely use health-improving types of gymnastics for women aged 30-55.

2. Generalization and analysis of the anthropometric indicators of 30-40-year-old female medical workers NG and TG at the beginning of the pedagogical experiment showed that the average relative difference in the parameters studied at the beginning of the pedagogical experiment was 1.61%. At the same time, it was found that the average arithmetic values of the anthropometric indicators of NG and TG female medical workers at the beginning of the experiment did not change significantly (in the range of  $P > 0.8$  and  $P > 0.2$ ), and this fact indicates that the pedagogical experiment was methodologically correct.

3. The average relative difference in the parameters studied at the beginning of the pedagogical experiment among girls aged 10-11 in the Health-improving group of the sports school was 0.90%. In addition, it was found that the average arithmetic values of the anthropometric indicators of girls in the Health-improving group of the NG and TG sports schools at the beginning of the experiment changed at different levels of significance (in the range of  $P > 0.8$  and  $P > 0.7$ ) without statistical significance. These facts, together with the fact that the coefficients of variation calculated for the NG and TG results of the anthropometric indicators of 10-11-year-old girls belonging to the control and experimental groups recorded at the beginning of the experiment are between the values  $V=5.46\%$  and  $V=12.79\%$ , and that these values are located in the positive parts of the good and satisfactory sections of the gradation, confirm that the pedagogical experiment was methodologically correctly organized.

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