## Methods of health-improving classes according to the hatha yoga system with women 36-40 years old

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## Abstract

**Objective of the study** was the theoretical and methodological substantiation of the methodology of health-improving classes according to the Hatha Yoga system with women aged 36-40.

**Methods and structure of the study.** The goal of health-improving training was to ensure the correction of agerelated disorders and the prevention of pathological changes in the body. When organizing health-improving classes, considerable attention was paid to the motives, needs, and interests of those involved. A pedagogical study lasting nine months was organized with the participation of 22 women (EG-11 people, CG-11 people) aged 36-40 years on the basis of the «Millennium» fitness center. All participants in the pedagogical experiment belonged to the main medical group.

**Results and conclusions.** The peculiarity of the developed methodology of health-improving classes with women aged 36-40 was the use of Vyayama articular gymnastics, Surya Namaskar asanas, breathing techniques, which made it possible to achieve significant results in physical fitness, functional and psycho-emotional state of women from the EG.

Keywords: methodology, hatha yoga, health activities, women of second period of mature age, design.

**Introduction.** In today's rapidly developing world, women are exposed to an ever-increasing amount of intellectual and emotional stress. Their social functions are no longer limited to housekeeping and caring for children. Modern women are ready to learn new professions, compete with men, lead, make responsible decisions. Against the background of scientific and technological progress, violation of the ecological balance and changes in the way of life of women, the risk of diseases of the cardiovascular, endocrine, respiratory and other body systems increases [6].

All of the above makes it possible to actualize the need for the search and application of preventive means and methods in strengthening, maintaining and prolonging the health of the female body.

**Objective of the study** was the theoretical and methodological substantiation of the methodology of health-improving classes according to the Hatha Yoga system with women aged 36-40.

**Methods and structure of the study.** The methodological basis for building a methodology for health-improving training of women aged 36-40 using the hatha yoga system was determined by the system-structural and personality-oriented approaches [1, 6]. The system-structural approach allowed us to consider the organization of the training process with women aged 36-40 and all the components of the methodology (complexes of physical exercises, load and rest parameters, etc.) in close relationship. Reliance on the ideas of a personality-oriented approach in the training process was necessary to take into account the personal characteristics of the subjects of interaction.

The goal of health-improving training was to ensure the correction of age-related disorders and the prevention of pathological changes in the body [3]. When organizing health-improving classes, considerable attention was paid to the motives, needs, and interests of those involved. A pedagogical study lasting nine months was organized with the participation of 22 women (EG-11 people, CG-11 people) aged 36-40 years on the basis of the Millennium fitness center. All participants in the pedagogical experiment belonged to the main medical group.

Comprehensive sociological, pedagogical and biomedical diagnostics made it possible to identify the initial state of women.

Among life values, the primary source for the formation of incentive motivation for fitness in women is subjective feelings about their physical disabilities, and the driving force is the desire to eliminate them. In 45.6% of women, a significant motive for doing fitness is the desire to reduce body weight and improve physique, 27.3% of women identified the motive for improving health and increasing the level of physical activity, the motive for achieving psychological relaxation is significant for 18.2% of respondents.

Anthropometric measurements and the method of indices made it possible to reveal that in women the results of the Quetelet weight-height index were worse than the norm by 9%; vital capacity of the lungs - by 12% of the lower limit of the norm; strength indicators are below the norm by 16%, the level of health according to the method of G.L. Apanasenko is below average.

The results of testing the physical fitness of women indicate low rates of speed-strength, coordination abilities, strength endurance and flexibility. The subjective assessment of the perception of physical activity on exercise in women ranged from "a little hard" to "difficult / hard".

The analysis of the psycho-emotional state according to the Beck scale showed that only 9.1% of women have a normal state, more than half of the women have mild and moderate degrees of depression, 30% of women have a severe degree, which indicates an unfavorable psycho-emotional state.

Analysis of the scientific and methodological literature made it possible to determine that the focus of health training with women of the second mature period should be on restoring and maintaining the level of functioning of the main and vital systems of the body, preventing conditions caused by age-related changes in the body, achieving standard indicators of the basic physical conditions of those involved [3, 4, 5].

Experts say that using hatha yoga means, you can influence not only the physical body, but also the mental part of a human being, and yoga asanas can improve joint mobility, elasticity of ligaments, providing a wide range of freedom of movement [3, 6].

The cycle of health-improving classes with women of the second mature age with the use of hatha yoga was divided into three periods: preparatory, basic and supporting, each lasting three months.

In the preparatory period, women were taught the basic technique of doing exercises and breathing, the rules of self-control and safety. During the lesson, the impact of the performed asana was explained, and practical recommendations were given on motor activity, breathing exercises and well-being control.

The load corresponded to low intensity, the exercises were performed with their own weight. The warm-up consisted of "Vyayama" - joint gymnastics, breathing exercises - "Pranayama" and a complex of dynamic transitions in 12 basic postures - "Surya Namaskar". The main part of the lesson included the work of the muscles in a dynamic mode, followed by static retention in a certain sequence and further relaxation of the agonist muscles, as well as with the observance of compensation techniques.

In the main period, the healing effect was achieved by regulating the volume and intensity of the exercises performed. To the main classes in this period, an additional workout was added once a week according to the "Yoga in Hammocks" program. This direction belongs to the category of traction techniques using suspended structures.

At the maintenance stage, the main goal was to preserve and maintain the achieved functional state of the women's body. The wellness classes included exercises with special equipment - belts, blocks, a yoga wheel.

The preparatory part of the lesson consisted of articular gymnastics (Vyayama) and aerobic part (Surya Namaskar). The main part was aimed at performing asanas of a power nature with one's own weight and exercises for developing flexibility. In the final part of the lesson, muscle relaxation (auto-training) was carried out.

An important aspect of training sessions with women was the rhythm set by natural breathing. Mastering the breathing technique was necessary for a gradual increase in the intensity of the load, taking into account the individual characteristics of each participant in the study. To form the skill of full breathing from hatha yoga, the methods of breathing with the stomach (diaphragmatic), chest (thoracic or middle breathing) and superficial (clavicular breathing) were mastered.



The physical exercises of hatha yoga were mastered according to the principle "from simple to complex". The learning of each asana was carried out through the performance of leading exercises with careful control of its technique.

The effectiveness of the proposed methodology was assessed by the dynamics of the functional and physical fitness of the participants, their level of health and improvement of physique, the degree of personal satisfaction with the results achieved and the level of psycho-emotional state.

Results of the study and their discussion. It was found that in the EG, the average index of the Quetelet index, which was at the beginning of the study at the level of "overweight", decreased by 11.9%, to the "normal" index at the end of the study. The vital capacity of the lungs of the EG participants increased by 27.9%. Significant changes occurred in the HR at rest in the EG, where the mean group result decreased by 1.4% (by 0.9 bpm).

Significant changes have also occurred in the indicators of the level of health, assessed by the method of G.L. Apanasenko, who began to correspond to the average level.

The results of the tests of the VFSK "GTO" complex indicate that more than 75% of women managed to get the golden badge of distinction in the EG. Analysis of physical fitness showed that the greatest changes over the entire period of pedagogical research in the EG were noted in terms of flexibility, strength endurance and coordination (Table 1).

Having studied the subjective assessment of the perception of the proposed load according to the Borg method, we can conclude that the organism adapts to the proposed load in women from the EG, the indicator decreased by 5 points. Positive changes in the psychoemotional state of women were observed not only in

the experimental group, but also in the control group. However, in the EG, the results are more significant, since no women with severe depression were noted at the end of the study. Also, women from the EG missed health-improving classes less often than those from the CG. This indicates their personal interest in achieving positive results.

**Conclusions.** A feature of the developed method of health-improving classes with women aged 36-40 was the use of Vyayama articular gymnastics, Surya Namaskar asanas, breathing techniques, which made it possible to achieve significant results in physical fitness, functional and psycho-emotional state of women from the EG.

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Table 1. Results of testing the coordination abilities and static efforts of women from the CG and the EG for the period of the experiment ( $M\pm m$ )

Indicators	Before	3 months	6 months	After	
Lying emphasis (plank on the palms, Kumbhakasana), s	EG	22,9±0,8	30,2±1,7	34,2±1,8	44,9±1,9*
	KG	19,7±0,5	21,2±0,8	24,4±1,8	27,2±1,5*
Emphasis lying on one arm (side plank, Vasishthasana,	EG	12,6±2,1	20,5±1,4	24,3±1,6	29,1±2,6*
sage pose), s	KG	10,9±1,4	13,2±1,2	14,0±1,1	15,3±1,1
Trunk extension lying on the stomach (Shalabhasana,	EG	11,9±1,7	18,9±1,3	21,1±1,2	30,3±1,6*
Locust pose), s	KG	15,1±2,9	16,8±1,1	18,5±1,2	22,5±0,9
Romberg test (toes to heel), s	EG	8,5±0,8	9,8±0,7	13,9±0,9	18,2±0,9*
	KG	9,9±1,1	10,1±0,7	12,1±0,7	13,2±0,4

\* Reliable changes (p<0,05).

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