



Method of training female university students to meet the gto standards – level vii for spinal mobility

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Abstract

Objective of the study is to substantiate and develop a methodology for preparing university students to meet the GTO VI standards for determining the level of spinal mobility (forward bend from a standing position) and to recommend it for practical use.

Methods and structure of the study. The experimental study was conducted at Altai State Pedagogical University in 2024 among first-year female students. The sample size was 50 people. To ensure the correct conduct of the experimental study, the following methods were selected: analysis of scientific and methodological literature, surveys, questionnaires, testing of baseline indicators of spinal mobility in female students, pedagogical observation, abstraction, systematization, modeling, methods of mathematical statistics, etc.

Results and conclusions. At the preliminary stage of the study, the mobility of the spinal column of first-year female students was tested. A corrective technique for developing the mobility of the spinal column of female university students was developed, including 4 weekly cycles with exercises of increasing complexity to develop spinal flexibility.

Keywords: methodology, training, female students, GTO standards, spinal mobility, VI – GTO level.

Introduction. Given the observed decline in physical activity and increase in physical inactivity among young students, the GTO complex is an important tool for motivating them to engage in regular physical education. However, meeting the standards of Level VI (“Physical Perfection”), designed for ages 18-29, requires specialised and competent physical training. The lack of a targeted methodology for one of the key groups – female university students – creates a significant gap in their physical education and sports training and reduces the effectiveness of the GTO complex as a whole.

The standard for determining spinal mobility (e.g., forward bend from a standing position on a gymnastic bench) is one of the key tests characterizing the condition of the musculoskeletal system and flexibility. For female students, most of whom lead a sedentary lifestyle due to their academic workload, the develop-

ment of flexibility and the prevention of spinal diseases are of particular importance. The development of specialized methods aimed not only at achieving athletic results but also at improving health is a timely and socially relevant task.

The physiological and psychological characteristics of female students must be taken into account when designing training programs. Universal training programs often do not take into account the specifics of flexibility development in women, differences in muscle tone, hormonal background, and motivation. Creating a methodology adapted specifically for female students will increase the effectiveness of training, reduce the risk of injury, and increase the percentage of those who successfully pass the standards.

Despite the revival of the GTO complex, there is a lack of research and proven programs in scientific and



methodological literature and educational practice that focus on preparing for specific standards that are most difficult for young women, such as the flexibility test. Existing recommendations are often general in nature, while preparation for this test requires the targeted development of passive and active flexibility, ligament elasticity, and the strength of stabilizing muscles.

The developed methodology will become a specific tool for physical education teachers in universities, sports club instructors, and female students themselves. Its implementation will systematize the training process, make it safe and effective, and will also contribute to increasing mass participation in the GTO complex and strengthening the health of the female student contingent.

Thus, the development of a scientifically based methodology for preparing female students to meet the GTO Level VI standard for determining spinal mobility is a relevant and practically significant task aimed at solving problems in physical education, improving the health of young students, and increasing the effectiveness of the GTO program.

Objective of the study is to substantiate and develop a methodology for preparing university students to meet the GTO VI standards for determining the level of spinal mobility (forward bend from a standing position) and to recommend it for practical use.

Methods and structure of the study. The experimental study was conducted at Altai State Pedagogical University in 2024 among first-year female students. The sample size was 50 people. To ensure the correct conduct of the experimental study, the following methods were selected: analysis of scientific and methodological literature, surveys, questionnaires, testing of baseline indicators of spinal mobility in female students, pedagogical observation, abstraction, systematization, modeling, methods of mathematical statistics, etc. The factual material gathered contributed to the development of an experimental methodology for improving the mobility of the spinal column in female university students, with a view to effectively achieving this indicator in accordance with the GTO VI level standards.

Results of the study and discussion. At the preliminary stage of the study, the mobility of the spinal column of first-year female students was tested, revealing the following statistical averages in cm, $\bar{X} = 6,7 \pm 1,5$.

At the same time, the GTO-VI standards for assessing spinal mobility in young women (forward bend from a standing position) are as follows: bronze badge – 8 cm; silver badge – 11 cm; and gold badge – 16 cm. Based on the statistical data obtained, it can be stated that one of the important indicators of young women physical health – spinal mobility – is at a low level for GTO standards, and here it is necessary to make adjustments to the pedagogical process of physical education for university students. In this regard, a corrective methodology for developing the mobility of the spinal column of female university students in physical education classes was developed. The corrective technique consists of four-week cycles, where in the first week, students perform a set of exercises at the end of physical education classes (up to 10 minutes) at the wall bars to develop spinal mobility, which includes: dynamic bends, swings, turns, lunges, hangs, pair exercises, etc.; in the second week, students perform a set of stretching exercises; in the third week, a set of exercises for spinal mobility from yoga gymnastics; and in the fourth week, competitions are held among first-year students to determine the best indicators of spinal mobility and assess the young women readiness to meet the GTO standards for silver and gold badges. On days when there are no physical education classes, students independently perform weekly complexes (15-20 minutes each) at home to develop spinal mobility.

Conclusions. The developed corrective method for improving the mobility of the spine in female university students, which includes four weekly cycles with exercises of increasing complexity for developing spinal flexibility, will help students successfully complete the GTO (Physical Fitness Test) Level VI standard, 'forward bend from a standing position on a gymnastic bench.'

References

1. Bulgakova O.V., Bliznevskaya V.S., Ponomarev V.V. Fitnes-trening formirovaniya gotovnosti studentok vuza k vypolneniyu kompleksa GTO: monografiya. Krasnoyarsk: Sib. feder. un-t, 2018. 140 p.
2. Ponomarev V.V., Kravchenko V.M., Bartnovskaya L.A. Podvizhnost pozvonochnogo otdela shkolnikov, prozhivayushchikh v usloviyakh kraynego Severa. Teoriya i praktika fizicheskoy kultury. 2023. No. 4. Pp. 35.