

Comparative Analysis of Criteria for Assessing the Level of Physical Fitness of The Population with International Standards

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Abstract: This article analyzes the criteria for assessing the physical fitness of the population and provides a comparative study with international standards. The content and effectiveness of national criteria used in the system of physical fitness assessment, as well as their scientific and methodological foundations, are revealed. Through comparison with the regulations adopted in international practice of physical education and sport, both similarities and differences have been identified. Furthermore, modern approaches, innovative methods, and indicators used in evaluating physical fitness levels are discussed. The article aims to develop practical recommendations for improving the physical culture of the population, enhancing standardization processes in sports, and harmonizing national criteria with international experience.

Keywords: Physical fitness, assessment criteria, international standards, regulations, comparative analysis, sports pedagogy, physical culture.

INTRODUCTION:

Physical fitness serves as an important factor in strengthening public health, preserving and extending working capacity, and enhancing the overall effectiveness of life activities across different age groups. The criteria for assessing the level of physical fitness are regarded as one of the priority directions of state policy in the field of physical culture and sports. It is precisely through an assessment system that opportunities are created to formulate scientifically grounded conclusions about the health status of the population, their lifestyle, and the level of their involvement in sports activities.

In the context of modern globalization, the use of international standards in assessing physical fitness, conducting comparative analyses of national criteria with these standards, and ensuring their harmonization are of great practical importance. In particular, the World Health Organization (WHO), the International Olympic Committee, as well as the

experience of developed countries, provide for the development of specific indicators for evaluating physical activity and fitness levels of the population, which are regularly updated.

In recent years, Uzbekistan has also developed regulatory documents and methodological guidelines related to the assessment of the population's physical fitness level, which occupy an important place in national sports policy. However, there remains a need for a comparative study of national criteria with international standards and for the improvement of a unified integrated assessment system based on this comparison.

This article analyzes national criteria for assessing the level of physical fitness of the population, conducts their comparative study with international standards, and develops proposals and recommendations for improving the national system.

The purpose of the study is to examine the scientific foundations of national criteria used to assess the level of physical fitness of the population, to carry out their comparative analysis with international standards, and to develop practical recommendations for improving the national system.

Research objectives:

to study and systematize scientific and methodological sources related to the assessment of the population's physical fitness level;

to analyze the content and essence of national criteria, their practical effectiveness, and areas of application;

to investigate the main indicators, tests, and norms used in international standards for assessing physical fitness levels;

to identify similarities and differences between national criteria through their comparative analysis with international standards;

to develop practical proposals and recommendations for harmonizing the national assessment system with international experience and improving it.

RESULTS AND DISCUSSION

In Uzbekistan, a system of state sports tests entitled "Level of Physical Fitness" has been implemented, which includes both voluntary and special (mandatory) requirements. These requirements are aimed at a comprehensive assessment of various physical qualities. Voluntary requirements primarily contribute to the development of speed-strength abilities (sprinting), coordination of movements, and practical skills; they widely incorporate exercises requiring specific competencies, such as swimming and running. In contrast, special (mandatory) requirements are mainly focused on assessing endurance, strength, flexibility, and speed as fundamental physical qualities. These standards and types of tests form the basis of the "Level of Physical Fitness" sports testing system.

For example, to assess strength and endurance, the system includes exercises such as pull-ups on a horizontal bar, push-ups in various forms, as well as running distances from 800 to 3000 meters or specified types of exercises in water. These tests make it possible to determine the functional

components of physical fitness—muscular strength, cardiorespiratory endurance, coordination of movements, and others.

The symbolism on the "Level of Physical Fitness" badges illustrates different types of exercises: a swimming person, a running athlete, abdominal muscle exercises, push-ups, or pull-ups on a horizontal bar. These pictograms indicate the content and requirements of the testing system.

In higher education institutions and in teaching practice, students are offered applied tests such as 100/60-meter running (speed), triple jump or long jump (strength and speed), pull-ups on a horizontal bar (strength), as well as rope jumping or other exercises requiring a sense of balance.

Age groups and requirements. The "Level of Physical Fitness" system is differentiated by age: the tests cover the population starting from 7 years old (children's group) up to 70 years and older; separate standards are established for each age category. This makes it possible to take into account the physiological characteristics and motor capabilities of each age group.

At the same time, international practices, such as the Eurofit tests, are mainly oriented toward schoolchildren aged 6–18 and include comprehensive assessments of balance, flexibility, speed and agility, muscular strength, and cardiorespiratory endurance. The World Health Organization (WHO), on the other hand, formulates not specific tests but general recommendations for physical activity for the population (for example, minimum daily activity levels for children). These norms are not directly measured through tests but serve as guidelines for maintaining health.

In Uzbekistan, test results are evaluated through special levels and badges (III, II, and I degrees—bronze, silver, and gold). The applied scales are based on norms that take into account gender and age; the tables clearly specify which tests must be performed and to what extent.

In the Eurofit standards, results are presented in the form of centralized norms and percentile tables, allowing comparisons by age and gender. In the "Level of Physical Fitness" system, there are also tables reflecting age-group characteristics, which

makes it possible to provide a more objective assessment of results.

The “Level of Physical Fitness” sports tests are conducted centrally under state supervision; relevant regulations and normative documents have been approved for this purpose. Regional and city administrations (khokimiyats), as well as youth and sports authorities, participate in the organization. Test results are recorded in electronic platforms, and participants who successfully meet the standards are rewarded both administratively and materially.

Advantages and disadvantages of the Uzbek system:

Advantages: broad coverage of age groups and

promotion through mass events; comprehensive nature of tests, allowing simultaneous measurement of several physical qualities.

Disadvantages: some qualities, such as balance, are not sufficiently assessed; unlike Eurofit (which includes the Flamingo balance test), the “Level of Physical Fitness” system rarely incorporates specific exercises to evaluate balance.

WHO recommendations are aimed at improving public health through the regulation of physical activity volume (in minutes per day/week), whereas the Uzbek system places greater emphasis on sports performance and achievements.

Table 1.

Comparative Table of Physical Fitness Assessment Systems

Parameter	Physical Fitness Level (Uzbekistan)	GTO (Russia)	Eurofit (Europe)	World Health Organization (Global Recommendations)
Target group	Population aged 7–70+ (11 age categories)	Population aged 6–70+ (18 age categories)	Schoolchildren aged 6–18	All age groups: children (5–17), adults (18–64), elderly (65+)
Main physical qualities	Strength, endurance, speed, flexibility, coordination	Strength, endurance, speed, flexibility	Strength, endurance, flexibility, speed, agility, balance	General physical activity (min/week), no testing
Examples of tests	Running (60–3000 m), swimming, pull-ups, push-ups, jumps	Running (60–3000 m), swimming, throwing, pull-ups, bends	Shuttle run 10×5 m, Flamingo balance test, sit-ups (30 sec), jumps, Cooper test (20 m)	Not tests, but recommendations: ≥60 min/day for children, ≥150 min/week for adults
Assessment system	Norms by gender and age; badges (bronze, silver, gold)	Norms by gender and age; badges (bronze, silver, gold)	Centile and percentile tables by gender and age	No scores or badges; only minimum activity standards
Organization	Centralized, annual, involving local authorities (khokimiyats) and Ministry of Sports; electronic recording of results	State program; tests conducted in schools and public centers	Conducted by schools and research centers; not necessarily at the national level	Countries independently implement recommendations in healthcare and education
Features	National traditions considered; wide coverage of mass sports	Mass motivation through awards and badges; integration with education	Scientifically grounded system focused on children’s health and development	Global activity standard with emphasis on disease prevention

Limitations	Insufficient balance tests; limited range of indicators	Strong focus on sports performance; infrastructure disparities	Limited to children and adolescents; not a mass state program	No specific tests or measurements, only general activity guidelines
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CONCLUSIONS

1. Coverage breadth: Both the “Physical Fitness Level” system (Uzbekistan) and the Ready for Labor and Defense (GTO) (Russian Federation) cover the entire population—from children to the elderly—whereas Eurofit is limited to schoolchildren, and the World Health Organization provides only age-based recommendations without practical testing.

2. Test content: The “Physical Fitness Level” system and GTO are aimed at assessing basic physical qualities (strength, endurance, speed, flexibility), Eurofit additionally includes tests for balance and agility, while WHO limits itself to general activity norms (minutes per day/week).

3. Assessment system: In the “Physical Fitness Level” system and GTO, incentives are provided through badges (bronze, silver, gold), which increases motivation. Eurofit focuses on statistical indicators (centile tables), whereas WHO does not provide any scoring system.

4. Organization: The “Physical Fitness Level” system and GTO are implemented as centralized state programs with mandatory testing, Eurofit is applied selectively by schools and research centers, and WHO has only a recommendatory role for national strategies.

5. Scientific and methodological basis: Eurofit represents the most scientifically developed system with an emphasis on objective measurements; the “Physical Fitness Level” system and GTO are more oriented toward mass sports and civic/patriotic education, while WHO focuses on health promotion and disease prevention.

6. Need for integration: To improve the national “Physical Fitness Level” system, it is important to expand the range of tests (for example, by incorporating balance and agility tests from Eurofit) and to take into account WHO recommendations on minimum physical activity levels for different age groups.

The state system of sports tests “Physical Fitness Level” in Uzbekistan is an effective tool for mass engagement of the population in sports and for assessing physical fitness, taking into account national characteristics and age-related standards. At the same time, the integration of international experience (Eurofit, GTO, WHO recommendations) will expand the range of assessed physical qualities, improve diagnostic accuracy, and bring the system closer to global standards in the field of physical culture and public health.

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