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ORGANIZATION OF PHYSICAL EDUCATION CLASSES BASED ON DIFFERENTIATED TRAINING PRINCIPLES IN HIGHER EDUCATION

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Abstract: The article discusses the organization of the physical education process in higher education institutions on a scientific basis, as well as the methodology of dividing students into differentiated groups (primary, sports, and special) according to their health status and level of physical fitness. Within this framework, it was possible to observe the increase or decrease in results over a six-month period based on student participation in sports testing. Furthermore, it is demonstrated that the integration of General Physical Training (GPT), Special Physical Training (SPT), and Professional Applied Physical Training (PAPT) types leads to an enhancement of students' physical capabilities in improving their overall physical condition. These processes are extensively detailed throughout the article.

Keywords: Physical education, health monitoring, balance, differentiated education, rehabilitation, GPT (General Physical Training), SPT (Special Physical Training), PAPT (Professional Applied Physical Training), hypodynamia, anthropometry, cyber-hygiene.

Introduction. The large-scale reforms being implemented in our country are aimed at developing education, sports, and technology. The primary goal is to educate healthy, intellectually mature, and highly qualified specialists who are capable of competing on an equal footing with the global community. However, in the era of globalization and digital technologies, the problem of physical inactivity (hypodynamia) has become increasingly acute among young people, particularly university students. The growing intellectual workload in higher education institutions has led to a decline in students' physical activity, which, in turn, negatively affects the functional capabilities of the human body. As emphasized by Ivan Pavlov, physical activity is essential for maintaining health, as it stimulates brain function, improves blood circulation, and enhances the productivity of intellectual work. Therefore, physical education classes in higher education should not be viewed merely as compulsory activities but rather as a scientifically based system focused on students' individual health characteristics.

In the theory and methodology of sports games, the effective implementation of these processes is closely associated with the athlete's intellectual abilities. Intellectual preparedness enables players to quickly assess game situations, anticipate opponents' actions, select appropriate tactical solutions, and occupy the correct position within a team-based playing system. Consequently, the development of intellectual potential in basketball is regarded as an integral component of technical and tactical training. Insufficient attention to the development of athletes' intellectual abilities may result in ineffective execution of technical skills, reduced accuracy of movement patterns, and incorrect tactical decision-making during competitions. As a consequence, players may lose advantageous game situations, while the team may experience overall performance failure. Therefore, the formation and development of intellectual abilities within the basketball training system have considerable scientific and practical significance. In this regard,

analyzing cognitive loads arising during game activities, developing specialized exercises and methods aimed at improving thinking speed, and enriching the training process through digital technologies represent important contemporary research directions.

In the present study, students of Bukhara State University were divided into experimental and control groups. The scientific basis for assigning students to medical and physical education groups is founded on the principle that the effectiveness of the educational process begins with grouping students according to their physical capabilities. This approach helps prevent excessive physical strain while simultaneously ensuring optimal physical development and improving the overall effectiveness of physical education programs.

Main Group: Students who are assessed as healthy based on medical examinations and whose physical development corresponds to age-related norms are assigned to the main group. These students are provided with the full range of curricular physical loads, including **General Physical Training (GPT)** and **Professionally Applied Physical Training (PAPT)**.

Sports Group: Students who possess a qualification in a specific sport or wish to receive specialized sports training are included in the sports group. In this category, primary emphasis is placed on **Special Physical Training (SPT)** aimed at developing sport-specific abilities and skills.

Special Medical Group: Students diagnosed with chronic diseases or identified as having delays in physical development are assigned to the special medical group. Their training programs are health-oriented and rehabilitative in nature and are conducted under the supervision of physical education and medical specialists.

Integration of General and Special Physical Training

Achieving an optimal balance between General Physical Training (GPT) and Special Physical Training (SPT) is essential for improving the overall physical condition of university students.

- **General Physical Training (GPT):** This component establishes the functional foundation of the body. It includes aerobic exercises that strengthen the cardiovascular system, as well as gymnastic exercises that improve flexibility and the functionality of the musculoskeletal system.
- **Special Physical Training (SPT):** This type of training develops sport-specific qualities such as explosive strength, reaction speed, coordination, and special endurance required for the student's chosen sport (e.g., handball, volleyball, basketball, etc.).

During the training process, students initially participate in activities focused on general physical conditioning. Subsequently, training programs should be organized according to an individualized approach that considers each student's physical characteristics and capabilities. At the initial stage, greater attention should be devoted to general physical development, while later stages should emphasize the improvement of technical and tactical skills.

When selecting training methods and exercises, it is necessary to consider students' growth processes and functional adaptations. For example, agility and speed can be enhanced through specialized exercises, whereas strength and endurance should be developed through gradually increasing workloads. Various jumping exercises and coordination drills contribute significantly to the comprehensive physical development of students.

The regulation and monitoring of training and competitive loads play a crucial role in preventing injuries, improving sports performance, and ensuring long-term participation in physical activity. To avoid physical and psychological fatigue, training loads should be distributed according to individual capacities and recovery abilities.

Furthermore, predicting students' future achievements is an important aspect of the training process. Such predictions should be based on the analysis of physical fitness indicators, technical

and tactical preparedness, and psychological stability. To achieve success at national and international levels, including elite competitions, a system of long-term planning and continuous monitoring should be implemented.

Means of Sports Training

Sports training means consist of various physical exercises and can generally be divided into two principal categories:

- **General Preparatory Exercises:** These exercises contribute to the comprehensive functional development of the athlete's body and establish the physiological foundation necessary for further specialized training.
- **Special Preparatory Exercises:** These exercises occupy a central place within the training system of skilled athletes. Examples include drills performed with training equipment, partner-assisted exercises, and exercises aimed at improving technical and tactical actions. Such activities effectively enhance students' physical capacities and sport-specific performance.

Professionally Applied Physical Training (PAPT)

Professionally Applied Physical Training focuses on developing physical qualities that are directly relevant to future professional activities. For instance, prospective teachers require endurance for prolonged standing, postural stability, and balance, while other professions may demand specific motor abilities and physical capacities.

Independent Physical Activity and Healthy Lifestyle Monitoring

The number of hours allocated to physical education classes is often insufficient to fully satisfy students' physical activity needs. Therefore, the methodology of independent exercise and self-directed training should be considered an essential component of the educational process.

In addition, incorporating elements of gymnastics into training sessions is highly beneficial. Gymnastic exercises effectively warm up the body, prepare the muscles and joints for physical activity, and reduce the risk of injury. Their use during the general preparation phase is particularly important, as they contribute to the development of flexibility, coordination, posture, and overall physical readiness. Consequently, gymnastics should be regarded as an integral component of university students' physical education and training programs.

- **Hygienic Gymnastics:** A set of exercises performed daily for 20–40 minutes, preferably 1.5 hours after a meal. These exercises contribute to maintaining overall health, improving blood circulation, enhancing muscle tone, and preparing the body for daily activities.
- **Monitoring and Self-Control:** Students should be taught to monitor their own physical condition by measuring their heart rate (HR), assessing fatigue levels, and gradually increasing exercise intensity and volume according to their individual capabilities. Self-monitoring skills contribute to safer and more effective participation in physical activity programs.

Modern Challenges: Environmental Factors and Harmful Habits

Although health-promoting interventions among university students contribute approximately 8–10% to overall health improvement, lifestyle factors account for nearly 50% of an individual's health status. Therefore, the promotion of healthy lifestyles remains a priority within higher education institutions. The detrimental effects of smoking, alcohol consumption, and narcotic substances on the cardiovascular and nervous systems should be scientifically explained to students. For instance, tobacco use can significantly increase heart rate (by approximately 15–18 beats per

minute), reduce oxygen transport efficiency, impair cognitive performance, and negatively affect overall physical capacity.

Environmental challenges, sedentary behavior, prolonged screen exposure, and unhealthy dietary habits further contribute to the deterioration of students' physical health. Consequently, educational institutions should implement comprehensive health-promotion programs aimed at developing sustainable healthy lifestyle behaviors.

Strategic Recommendations for Improving the General Physical Condition of University Students

To enhance the physical fitness and health status of students in higher education institutions, the following strategic measures are recommended:

1. **Individualized Training Trajectories:** Develop personalized exercise programs based on each student's level of physical development, health status, functional capacity, and individual needs. Such an approach allows for more effective adaptation of training loads and promotes optimal physical development.
2. **Integration of Traditional and National Games:** Incorporate traditional and national games into physical education programs to simultaneously foster national identity, cultural values, and physical qualities such as agility, strength, endurance, and coordination. Game-based activities can also increase student motivation and engagement in physical exercise.
3. **Digital Monitoring and Feedback Systems:** Introduce mobile applications, wearable fitness devices, and electronic activity diaries to monitor students' physical activity levels, exercise performance, and health indicators. Digital technologies provide real-time feedback, facilitate self-monitoring, and encourage greater participation in regular physical activity.

The implementation of these strategies can significantly contribute to improving students' physical fitness, promoting healthy lifestyles, and increasing the effectiveness of physical education programs in higher education institutions. Furthermore, a differentiated and evidence-based approach to physical training can support the development of physically active, healthy, and professionally competent future specialists.

In conclusion, physical education among university students should be viewed not merely as a process of developing muscular strength and motor skills, but as a comprehensive pedagogical system that fosters healthy thinking, strong willpower, and overall personal development. Improving the general physical condition of higher education students is currently regarded not only as a means of promoting a healthy lifestyle but also as an important factor in enhancing their intellectual, psychological, and professional potential.

The findings of this study indicate that differences in students' physical fitness levels reduce the effectiveness of uniform training programs. Therefore, organizing physical education classes based on a differentiated methodology represents a modern and effective pedagogical approach. Research findings and practical observations demonstrate that grouping students according to their physical development, health status, functional capabilities, and personal interests significantly increases the effectiveness of training sessions. Such an approach allows training loads and exercise intensity to be adapted to individual characteristics, thereby preventing excessive fatigue and facilitating the gradual development of physical qualities.

As a result, students become more actively involved in physical education activities, develop stronger motivation toward sports participation, and acquire the skills necessary for independent physical exercise and lifelong health maintenance. Furthermore, differentiated training contributes

to improving functional capacity, strengthening health, and enhancing overall physical preparedness.

From a practical perspective, the following recommendations are proposed:

- Conduct initial assessments of students' physical fitness through standardized testing procedures;
- Classify students into smaller groups according to indicators of strength, endurance, speed, and flexibility;
- Develop specific training loads and exercise programs for each group;
- Integrate modern pedagogical technologies, active games, and motivational teaching methods into the educational process;
- Combine health-oriented running, fitness exercises, aerobics, and traditional national sports activities;
- Implement regular monitoring and evaluation of students' daily physical activity levels;
- Encourage independent physical activity through the use of mobile applications, video tutorials, and online training platforms;
- Integrate recommendations on healthy nutrition and daily lifestyle management into physical education programs.

In addition, strengthening teacher–student collaboration, expanding individualized instruction, and developing sports clubs based on students' interests are essential for increasing participation and improving educational outcomes. These measures contribute to strengthening students' health, enhancing their physical development, and promoting greater social engagement.

Overall, physical education programs organized on the basis of a differentiated methodology expand students' functional capacities, facilitate the effective development of physical qualities, and serve as an important pedagogical tool for preparing healthy, well-rounded, and competitive future professionals. Consequently, the implementation of differentiated training approaches in higher education institutions should be considered one of the key directions for improving the quality and effectiveness of contemporary physical education systems.

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