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APPLICATION OF INNOVATIVE TECHNOLOGIES DURING TRAINING OF TECHNICAL AND TACTICAL ACTIONS OF FOOTBALL STUDENTS

The article reveals the meaning and importance of using innovative technologies during the training of technical and tactical actions of football players. It was found that one of the main criteria for the development potential of modern society is good health and a high level of physical fitness. It was determined that training and comprehensive training of professional football players of a new quality is possible only with the help of modern methods based on the latest advances in information technology. Thus, the introduction of modern innovative technologies into the education system, which ensure further improvement of the educational process, technical and tactical training of football students, is of great importance. It has been established that the level of playing skill in football is based on the stability and variability of technical and tactical techniques. Reforms carried out in the system of higher education deeply affected the process of physical education of student youth. The search for ways to increase its effectiveness is the object of constant attention of many researchers. In addition, the process of physical education of students has its own characteristics due to the impact on it of various external and internal factors that determine the target orientation, the selection of the content of educational material, the design of organizational, methodical and material infrastructure. Most researchers associate the purpose of physical education and sports training with the formation of the physical culture of the student's personality.

Keywords: physical education, students, football, technical and tactical training, innovative technologies.

Білоконь В., Анікеєнко Л. Використання інноваційних технологій під час навчання техніко-тактичних дій студентів-футболістів. В статті розкрито значення та важливість застосування інноваційних технологій під час навчання техніко-тактичних дій футболістів. Виявлено, що одним із головних критеріїв потенціалу розвитку сучасного суспільства є міцне здоров'я і високий рівень фізичної підготовленості. Визначено, що навчання і всебічна підготовка професійних футболістів нової якості можливі лише за допомогою сучасних методик, заснованих на новітніх досягненнях інформаційних технологій. Таким чином, вагомого значення набуває впровадження сучасних інноваційних технологій в систему освіти, котрі забезпечують подальше вдосконалення освітнього процесу, техніко-тактичну підготовку студентів-футболістів. Встановлено, що рівень ігрової майстерності в футболі ґрунтується на стійкості і варіативності техніко-тактичних прийомів.

Ключові слова: фізичне виховання, студенти, футбол, техніко-тактична підготовка, інноваційні технології.

Formulation of the problem. Reforms carried out in the system of higher education deeply affected the process of physical education of student youth. The search for ways to increase its effectiveness is the object of constant attention of many researchers. In addition, the process of physical education of students has its own characteristics due to the impact on it of various external and internal factors that determine the target orientation, the selection of the content of educational material, the design of organizational, methodical and material infrastructure. Most researchers associate the purpose of physical education and sports training with the formation of the physical culture of the student's personality.

In this context, playing football is one of the most popular, mass and effective organizational and methodical forms of physical education of student youth, actualizing the attention of psychological and pedagogical science to the further study of the problem of optimizing student physical education and finding ways to solve it.

One of the most popular and effective types of physical culture and health activities are sports games, in particular football, which is actively used in the physical education of student youth, has potential opportunities for the development of psychophysical conditions, education of willpower and moral qualities, social behavior skills and a healthy lifestyle. Therefore, the problem of teaching technical and tactical actions using innovative technologies requires further search for ways to solve it.

Analysis of literary sources and research. The analysis of special literature on the construction of sports training, aimed at strengthening the musculoskeletal system of football players, shows that currently there are enough works that give recommendations on conducting the training process using sports injury prevention measures [5]. At the same time, the construction of purposeful, specially organized and scientifically based complex training classes was not found in the sources we studied, which became the subject of our research. The growing importance of systematic physical exercises, associated with profound changes in the way of life of a person, requires the development of measures capable of ensuring the high efficiency of the use of physical culture and sports to strengthen the health and increase the working capacity of the broad masses of the population [8].

Presentation of the main research material. Adequate physical activity, which should be organized on the basis of students' motor abilities and the basis of free choice of physical exercises, has the potential to influence physical health in the

conditions of a higher education institution. The effectiveness of sports-oriented physical education of student youth has been confirmed by a number of modern scientific studies. Thus, scientists substantiated the effectiveness of sectional classes in athletics, proved the effectiveness of the use of aerobics, various types of fitness, confirmed the effectiveness of sports sections in sports games: volleyball, basketball; mini-football and soccer; the positive effect of sectional classes in strength sports was determined.

Therefore, the effectiveness of the classes depends not so much on the type of physical and recreational activity, but on the motivation of students and the optimally selected content and parameters of physical activity in accordance with their readiness.

Sports games are a popular type of physical exercise among young people, which has health-improving, educational, developmental and applied value at the same time. Among the large number of game sports, those that are widespread in Ukraine and have a complex, multifaceted impact on the development of the individual and the team are of particular interest. So, currently football has become widespread at various levels of education - from preschool to higher education, elements of football are offered in the physical education of preschoolers, elementary, primary and high school students, and students of higher education institutions. Football is a complex coordinated game sport that organically combines individual activity and team interaction. Football lessons are available for people of different levels of fitness, but the level of playing skill in football is based on the stability and variability of technical and tactical techniques and combinations, the level of development of motor qualities, mental qualities and intelligence of the players.

In the physical education of students in football sections, there are traditionally different methods of teaching technical techniques and physical training. Usually, students who have expressed a desire to play basketball have an idea of the game and different ball handling skills - from elementary to high-quality, are characterized by different playing experience - from a beginner to a professional with a sports qualification. already formed in the process of physical education lessons, sectional classes in institutions of general secondary education or in children's and youth sports schools. Therefore, the level of preparation of students in basketball varies, which means that the content and parameters of physical exertion in the process of basketball lessons should be different and the technology of pedagogical control should be individually oriented.

In the scientific and methodical literature, data on various mechanisms of injuries and injuries (running, falling, hitting the goal, interception, blocking) in football team players in different directions of sports activity - goalkeepers, defenders, midfielders, attackers - are given [3].

Contact injuries were identified as the main mechanism. Goalkeepers receive damage as a result of contact in of cases, defenders - in of cases. In midfielders and forwards, injuries most often occur during running, when falling and hitting the ball, and more often during official matches than during training sessions [7].

Serious injuries received by football players prove how dangerous football is. According to the materials of football clubs, an average of 200 to 270 injuries occur to football players annually. The part of injuries that is operated on is approximately 3-5%. The remaining injuries are treated conservatively. Basically, these are joint injuries. In the first place - an injury of the ankle joint, in the second place - of the knee joint (the nature of the injuries is different) - it is an injury of the meniscus (a shock absorber inside the joint, on the cartilage base); injuries of collateral ligaments - ligaments that strengthen the knee joint - they either tear or tear during movements that exceed their functional capabilities [4].

In the case of the upper extremities, injuries usually occur as a result of falling to the ground, while in the lower extremities, contact injuries are the main source of fractures and sprains, especially of the knee joint. In of cases, stretching of the knee joint occurs without contact [2].

Knee joint injuries include of anterior cruciate ligament injuries; - medial-collateral ligament. Anterior cruciate ligament injuries are caused by contact trauma in of cases, while of medial-collateral ligament injuries are caused by contact injuries. The posterior cruciate ligament is much less often damaged. Half of meniscal injuries are due to the mechanism of hitting the ball [8].

The mechanism of muscle stretching depends on localization. Thus, anterior rectus muscle strains usually occur when hitting the ball, while damage to the muscles of the back surface of the thigh or calf muscles occurs during acceleration. Most of the damage is to the lower leg ankle joint occurs as a result of supination [3].

The mechanism of injuries of the musculoskeletal system in athletes has specific features and often represents a complex biomechanical process in which the following factors play a leading role [4,5]:

- place of application of force (direct, indirect, combined mechanisms);
- force of influence that exceeds or does not exceed the physiological strength of tissues (macro- and microtraumas);
- the frequency of repeated exposures (single (acute), repeated and chronic injuries).

The frequency of trauma (that is, the repetition of traumatic impact) and its relative value (force), which exceeds or does not exceed the physiological threshold of tissue strength, are important. The consequence of a traumatic impact, the strength of which exceeds the strength of the tissue, is a violation of the anatomical structure of the tissue or organ, which is observed in the case of an acute injury [4].

The risk of getting injured by football players is related to the personal attitude of the football player to the warm-up. The warm-up includes very active exercises for stretching the tendons and ligaments. Improper attitude to warm-up is the cause of all injuries that the athlete receives both in the training process and in the team game. Secondly, it is the technical training and skill of the athlete. Thirdly, incorrect performance of technical exercises: tackling, the element of exposing the limbs when hitting the ball, aggressiveness on one's own or on the part of the opponent [5].

The technical and tactical training of students in football is aimed at the direct training of playing skills in attack and defense and their improvement [2].

The general physical training of students in football includes health-improving tasks: increasing functional capabilities and physical capacity, development of basic motor qualities [9].

Special physical training of football students involves the development of special movement qualities that affect game performance. Its content includes a variety of strength and speed-strength exercises for the development of leg, arm and trunk muscle strength; speed exercises, exercises for the development of accuracy and coordination of movements, exercises for the development of joint mobility and stretching, for increasing the amplitude of movements, exercises for the development of various types of endurance [4]. The acceleration of scientific and technical progress, based on the introduction into the production of flexible automated systems, microprocessors and software control devices, robots and processing centers, has given modern pedagogical science an important task - to educate and prepare the younger generation, capable of actively participating in a qualitatively new stage of development of modern society, related to informatization [5].

As a result of the process of integration of computer technologies into the education system, modern information and communication technologies are increasingly used as a means of intensification of the educational process, in particular, physical education in institutions of higher education.

The analysis of scientific and methodical literature confirms the importance of pedagogical control in the physical education of students of higher education institutions not only theoretically, but also practically. It has been established that there are many approaches and proposals for the search for effective ways to improve systems of control and assessment of educational achievements in physical education classes. At the same time, the analysis of the practical developments of well-known specialists in the field of physical education indicates the imperfection of modern control methods.

At the same time, the scientific literature, which highlights the problem of pedagogical control in the physical education of students of higher education institutions, has an empirical nature and is implemented without appropriate metrological justification. Therefore, the question arises in the development and implementation of a system of control and assessment of motor activity that would meet the modern requirements of the organization of the educational process and have an effective effect on raising the status of physical education and attracting young people to physical exercises [2].

The use of information and communication technologies in physical education classes makes the educational process mobile, strictly differentiated and individual, while for the teacher they are a source of educational information, a visual guide, a simulator, a means of preparing and storing tests, diagnostics and control [4]. Computer educational technologies, the latest teaching tools and the introduction of computerized management of the pedagogical process can transform learning from physical education into a highly productive, motivated and innovative process. Conducting monitoring studies in the field of physical culture and sports is accompanied by obtaining a large array of operational information, the analysis of which is impossible without the use of modern information systems. The quality of the implementation of the educational process in football in institutions of higher education is related to its correct planning (formation of content, means and methods of teaching technique and development of motor qualities, selection of parameters of physical exertion and their optimal regulation), as well as with objective assessment of educational achievements students [2]. The introduction of new educational information technologies can solve a wide variety of tasks: imparting knowledge, monitoring the progress of their assimilation, demonstrating the performance of both statistical and dynamic exercises; comparison of biomechanical characteristics of the standard of motor actions performed by the student and instructions for further training depending on the identified discrepancies with the standard; storage of information in the form of data banks with lesson notes, planning documents, card files of mobile games, lists of literature, educational and control programs, complexes of general developmental exercises; control, accounting and analysis of the dynamics of physical development of students; keeping documentation and processing the results of sports competitions; etc [7]. The use of information and computer technologies in education significantly affects the motivational sphere of student youth, causing the formation of priority educational and cognitive motivations for learning, which ensure the successful acquisition of knowledge and skills that contribute to the health of students, improving their physical health, physical fitness.

Conclusions. The article reveals the meaning and importance of using innovative technologies during the training of technical and tactical actions of football players. It was found that one of the main criteria for the development potential of modern society is good health and a high level of physical fitness. It was determined that training and comprehensive training of professional football players of a new quality is possible only with the help of modern methods based on the latest advances in information technology. Thus, the introduction of modern innovative technologies into the education system, which ensure further improvement of the educational process, technical and tactical training of football students, is of great importance. It has been established that the level of playing skill in football is based on the stability and variability of technical and tactical techniques.

Reference

- 1. Agarkov O. (2008) Regularities of formation, risk factors and measures for the prevention of adolescent injuries in an urbanized region: author's ref. dis. ... cand. honey. Science: special. 14.01.21 / O. Agarkov; Donetsk national honey. Univ. M. Gorky. Donetsk. 19 p.
- 2. Bashkirov V. (1989) Causes of injuries and their prevention / V. Bashkirov // Theory and practice of physical culture. № 9. -
- 3. Bashkirov V. (1984) Comprehensive rehabilitation of athletes after musculoskeletal injuries. M .; Physical Culture and Sports. 240 p.
- 4. Brizhataya I. (2003) Formation of the culture of physical health of students in the system of prevention of school injuries / I. Brizhataya // Pedagogy, psychology and med.-biol. probl. phys. education and sports. № 17. p. 33–39.
- 5. Creighton N. (2002) Application of orthopedic devices for injury prevention / N. Creighton, D. Mckenzie // Sports injuries. Basic principles of prevention and treatment. К.: Олимпийская литература. р. 333–341.
 - 6. Levenets VM Actual issues of sports injuries / V.M. Levenets // Sports Medicine. 2004. № 1-2. P.84-90.
 - 7. Makarova G. (2005) Risk factors in modern sports. // Sports Medicine № 2. P. 50-55.
 - 8. Murza V. (2007) Sports Medicine: A Textbook for Higher Education. / V. Murza. Good girl. K. 249 p.
 - 9. Platonov V. (2006) Injuries in sports: problems and prospects. № 1. p. 54-77.