SELF-CONTROL AND INJURY PREVENTION IN STUDENTS IN PHYSICAL CULTURE AND SPORTS

A.K. Namazov^{1a}, N.B. Majidov^{2b}, I.V. Kivihariu^{3c}, K.A. Namazov^{1d}

¹Peter the Great St. Petersburg Polytechnic University, St. Petersburg

²Azerbaijan State Academy of Physical Education and Sport

³Lesgaft National State University of Physical Education, Sport and Health, St. Petersburg

^aorcid.org/0000-0001-5044-656X

^bnazm.majidov@sport.edu.az, orcid.org/0000-0001-5420-7929 ^corcid.org/0000-0003-4285-3493

^dorcid.org/0000-0002-2976-2629

Nəşr tarixi

Qəbul edilib: 15 sentyabr 2022 Dərc olunub: 27 dekabr 2022

© 2022 ADBTİA Bütün hüquqlar qorunur

Annotation. Physical culture and sports have become an integral part of the life of modern society. Physical education classes in schools are not the only place where sports are encouraged. Every year more and more people visit sports stadiums and halls and engage in intense physical exercise. In this regard, medical monitoring of the health of athletes is becoming increasingly important. Self-control and measures to prevent injuries also play an important role. The purpose of this article is to study the features of self-control and prevention of injuries in independent physical education and sports.

Keywords: primary examination, self-control, self-observation, training process, self-control diary, physical training, safety precautions, sports injuries.

Comprehensive control requires special knowledge and skills for the teacher to ensure correct observation, analysis, and evaluation of students' actions, to identify deficiencies in their own actions and to determine the appropriateness and efficiency of the methods and forms of work organisation in specific learning contexts and situations. On this basis, it is possible to eliminate or prevent observed deficiencies in the upcoming lessons.

Pedagogical monitoring is a systematic process of obtaining information about the

physical condition of students participating in physical education and sport. It serves to verify whether the pedagogical actions are relevant to improve the efficiency of the lesson.

Before starting a class, students must receive a medical examination, which is divided into primary and secondary, in order to be allowed to participate in physical education and sport lessons [4, 6].

The primary examination can determine whether the person can take part in regular physical exercises and sports.

A secondary examination is made to check that the amount and intensity of exercise is appropriate to the state of health and to adjust the training process.

Self-control is used to track changes in the body during exercise or training. This complements medical support and allows the person to make timely arrangements for changing or cancelling exercise, and to adjust the plan [2]. Some people want to improve their health through exercise, others prefer real sport. Either way, self-control during physical activity is used to register changes in health parameters. It is used to determine the state of physiological parameters, endurance, improvement or deterioration of function. When performed by an individual, it helps doctors to get an overall picture. And trainers can make adjustments to the exercise routine.

Athlete self-control is the systematic use of a number of simple methods for self-observation of changes in health and physical development influenced by physical activity [5].

Self-control gives the athlete the opportunity to control the training process themselves. In addition, self-control is important for education and training, as it requires the athlete to actively observe and evaluate their condition and to analyse the training methodology used.

The trainer and physical education instructtor can help the athlete to adjust the training load and the health care practitioner to correctly evaluate changes in the athlete's health and physical development [4].

The trainer and doctor should explain to athletes the importance of regular self-control for health improvement, proper management of the training process and better sport results and should recommend the use of certain observation methods, explaining how certain self-control indicators (e.g. sleep, heart rate, weight) should change if the training is well managed and if the routine is violated [3, 8].

The trainer and physical education teacher, together with the doctor, should ensure that athletes correctly understand the changes in various body functions under the influence of physical exertion. Athletes should be cautioned to avoid rushing to conclusions about abnormal self-test results, as incorrect conclusions could be followed by inappropriate training and possible self-induced illness that the athlete does not actually have. It is important to make it clear to athletes that if they find an abnormal self-test result, they should consult a doctor and a teacher or trainer before taking any action.

Keeping a self-control diary, which is part of the training diary that every athlete should keep, is essential. By reviewing this diary, the doctor, teacher or trainer will be able to see the dependence of changes in the athlete's health on the content and nature of the training [2, 7].

Self-control indicators are usually divided into subjective and objective ones.

The group of subjective indicators includes well-being, exercise appraisal, attitude towards training, sleep, appetite, etc. The importance of each of these qualities in self-control is in the following.

Feeling is the sum of the signs: the presence (or absence) of any unusual sensation, localised pain, feelings of wariness or, conversely, tiredness, lethargy, etc.

Feelings may be pleasant, satisfactory or unpleasant. If any unusual sensations occur, note their nature and state the reason why they happened (e.g. muscle pain after exercise). Muscle soreness often occurs when exercising after a break or when the effort is increased very rapidly - overloading. While running, athletes may experience pain in the right subcostal area (liver area) and left subcostal area (spleen area) [2].

Pain in the right side of the stomach can be caused by liver and gallbladder problems or by heart disease. Athletes sometimes complain about pain in the heart area. If an athlete suffers from heart pain while working, they should see a doctor immediately. In case of exhausttion and overexertion, headaches or dizziness may also occur, which should be recorded in a self-control diary.

Exhaustion is a subjective feeling of tiredness that appears as an unwillingness or inability to perform a normal work load or planned physical activity. Self-control allows you to observe whether tiredness depends on activity or something else, when it occurs and how long it lasts.

The athlete should note the degree of exhaustion after training ("not tired", "a little tired", "overworked") and the day after training: "not tired", "feeling well", "feeling tired", "not fully rested".

Also, important to consider moods: normal, stable, low energy, depressed, desire to be alone, over-excitement.

Work capacity depends on general body condition, mood, exhaustion and previous work (occupational and sporting). The ability to work is assessed as increased, normal and decreased.

Lack of desire to train and compete can be a sign of overtraining.

Proper sleep restores the efficiency of the central nervous system and ensures freshness and liveliness. When you are overworked, insomniac or extremely sleepy, you often have a restless sleep (often interrupted, accompanied by heavy dreaming). A feeling of tiredness occurs after sleep. The athlete should record the number of hours of sleep (remembering that sleep should be at least 7-8 hours, 9-10 hours in case of intense physical activity) and its quality, and in case of sleep disorders, its symptoms: poor sleep, frequent or early awakenings, dreams, insomnia, etc.

Appetite is noted as normal, decreased or increased. Deterioration or lack of appetite usually indicates tiredness or illness.

Objective signs of self-control are heart rate, weight, perspiration, spirometry, dynamometry and, less frequently, breathing rate (as it is difficult to count the number of breaths yourself) or any other functional test.

The athlete should also have their heart rate counted periodically after certain sports activities. A well-trained athlete usually has a pulse rate of no more than 180-200 beats per minute, even after very intense exertion. The recovery time of the heart rate after certain sports activities is an important indicator of the athlete's functional condition.

Weight determination (by weighing) is enough to be done once or twice a week. An exception to this is when you need to strictly regulate your weight according to the weight category in the competition period (boxers, wrestlers, weightlifters). It is best to check your weight in the morning, on an empty stomach (after emptying the bladder and bowel). If this is not always possible, always weigh yourself at the same time of day on the same scales, without clothes on.

Nutrition is of paramount importance. Overfeeding during the exercise period can cause an unusual increase in body weight for this condition. Excessive weight loss, which is not directly related to errors in exercise technique and exertion, can be caused by an incurrect overall routine and poor nutrition.

The trainer and physical education teacher should check the self-control diary of the athlete at least once every one to two weeks. The doctor should review the self-monitoring diary at repeated examinations.

Injury prevention in physical education and sports should also be considered. Causes of injuries may include: irregularities in teaching methods; failure to follow the method-logical principles of accessibility, gradualness and individual characteristics; poor condition of equipment and implements; poor preparation of training grounds; ignorance and failure to follow self-control measures; overloading of training grounds and rooms compared to the standard space per person; poor sanitary and technical condition of training grounds, lack of lighting, slippery floors, lack of ventilation; lack of discipline of trainees; lack of training facilities and lack of equipment.

Internal factors causing sports injuries must be considered. These include exercise in a state of exhaustion and overexertion, and also in the presence of chronic hot spots of infection, with a tendency to spasm of blood vessels and muscles and other painful conditions [1].

To prevent hypothermia and overheating, it is important to consider meteorological factors (temperature, humidity, wind), the athletes' degree of endurance and the suitability of clothing and footwear for these factors.

Possible injuries in different types of exercise should be carefully studied and analysed in order to develop specific measures to prevent and eliminate the conditions in which they happen.

There are general injury prevention measures, regardless of the type of sport, which, if ignored, greatly increase the risk of injury:

- Attention and concentration. You should think only about the training and nothing else. Concentrate on your primary competencies, on performing the correct technique and do not get distracted by other people's thoughts or conversations.
- 2. Maintaining safety technique. Every sport has its own safety rules that you should know first.
- 3. Quality indoor equipment and indoor coverings.
- 4. Proper uniforms and shoes.
- 5. Observe personal hygiene.



- Good warm-up and muscle tuning. Poor warm-up causes stretching of the ligament apparatus and reduces mobility and range of motion.
- 7. Correct performance of the technique and movements. While mastering a new exercise, be sure to start by learning the correct technique for performing the movement, do not rush to increase the amplitude, speed of impact or the working weight of the bar. Allow your body to master the new movement, its correct biomechanics. Stretching and tearing of muscles, ligaments and tendons can occur due to the mechanism of intermuscular coordination unfolding as the new exercises are mastered.
- 8. Calculate your own strength and body's ability to exercise and follow a daily schedule. Overestimating your body's capabilities and persisting too hard in sports can lead to overtraining and injury.
- 9. Old injuries must be cured until they have fully healed. After an injury, the load must be reduced until it has completely healed, otherwise a new (often more serious) injury may occur due to a weakened and still fragile organism.
- 10. Professionally trained technical staff provides not only guidance in the practice of physical education and sport, but also ensures a positive and safe environment for exercise.
- 11. Follow the principle of consistency and gradualness of the training load. All changes in the programme should be logical, taking into account your physique, health status, age and physical condition.
- 12. Medical supervision. In the case of certain illnesses (if there is no prohibition of physical activity), a number of restrictions should be imposed on physical activity and training intensity. Serious exercise disorders (drinking alcohol on the eve of training) also contribute to injuries.
- 13. Balance between strength and flexibility. Regular flexibility training will reduce muscle stiffness, improve coordination, and increase joint range of motion. Strength

training can reduce the risk of minor muscle injuries, as stronger muscles are better able to cope with stress. In addition, to strengthening soft body tissue (muscles, tendons, ligaments), strength training increases the endurance of bones, ligaments, and joints, therefore increasing resistance to mechanical damage [9, 10].

Conclusion. There is no greater value for each individual and for society in general than health. Physical exercise is an integral part of human life. It has quite an important place in people's work. Physical exercise plays an important role in the performance capacity of members of society, so knowledge and skills in physical education should be introduced gradually at different levels of education. Higher education institutions also contribute to physical education and training, where teaching should be based on clear methods, which together constitute a well-organised and structured method of teaching and training students.

Self-control can help students to develop a sensible attitude towards their health and physical activity, help them get to know themselves better, control their health and develop good hygiene and compliance skills. Self-control helps to regulate the exercise process and avoid overexertion. Self-control is especially important for students in special medical group.

There is general injury prevention regardless of the sport, i.e. rules whose non-observance significantly increases the risk of injury: attention and concentration, knowledge of safety procedures, quality of gym equipment and surfaces, correct uniform and footwear, personal hygiene, good warm-up and strength training, correct technique and movement methods, correct calculation of your strength and body capacities, and observance of daily routines, old injuries must be properly treated, professional training must be provided.

Each sport has its own specific training and competition conditions in which injuries can occur. To avoid them, an athlete should be well aware of them.

REFERENCES

- 1. Asanin V.Y., Deverinskaya A.T., Bondareva E.V., Grigoryev A.N. Causes and injury prevention in students during physical culture and sports. Vestnik RUK. 2018, №3.
- **2. Astakhov N.E.** *Self-control for those who engaged in physical culture.* N.E. Astakhov. Text: direct. Molodoy uchenyj. 2019, № 18 (256), p. 60-61.
- 3. Belykh S.I. Self-control of students during independent physical training and sports. Uchenye zapiski Lesgaft University. 2015, №9 (127).
- **4. Vetkov N.E.** Fundamentals of medical control and self-monitoring in the process of physical education. Nauka 2020, 2016, №5 (11).
- **5. Zadoya N.V.** *Self-control in physical education and sports*. Health the basis of human potential: problems and solutions. 2017, №1.
- 6. Namazov A.K., Kerimov Sh.A., Shamray L.V., Namazov K.A. The importance of medical and pedagogical control in physical training and sports. A.K. Namazov, Sh.A. Kerimov, L.V. Shamray, K.A. Namazov, Physical training and sports in professional education: Interuniversity collection of scientific and methodical works / Edited by V.A. Shegolev. Saint-Petersburg: Federal State Autonomous Educational Insti-

- tution of Higher Education "Saint-Petersburg Polytechnic University of Peter the Great", 2020, p. 185-189.
- 7. Namazov A.K., Guzikova L.A., Bushina V.A., Namazov K.A. Injury prevention in judo. A.K. Namazov, L.A. Guzikova, V.A. Bushina, K.A. Namazov // Student Physical Education: Materials of All-Russian scientific and practical conference, Saint Petersburg, June 13, 2019. Saint Petersburg: Federal State Autonomous Educational Institution of Higher Education "Saint Petersburg Polytechnic University of Peter the Great", 2019, p. 427-433.
- 8. Mosharova P.S., Namazov A.K. Improving self-regulation in meaningful situations. P.S. Mosharova, A.K. Namazov // Place and role of physical culture in the modern world: Collection of articles and abstracts of All-Russian Scientific-Practical Conference, Saint Petersburg, 19-20 May 2021. Saint-Petersburg: 'Scythia-print' Ltd. p. 216-225.
- **9. Syrnikov A.Yu.** Prevention of traumatism in physical training and sports. Law and Order: History, Theory, Practice. 2014, №1 (2).
- **10. Farafonova** N.V. *Methodical recommendations on prevention of traumatism at training sessions.* N. V. Farafonova. Text: direct. Molodoy uchenoj. 2017, № 32 (166), p. 112-116.

BƏDƏN TƏRBİYƏSİ VƏ İDMAN MƏŞĞƏLƏLƏRİNDƏ TƏLƏBƏLƏRİN ÖZÜNƏ NƏZARƏT VƏ ZƏDƏLƏNMƏLƏRİN PROFİLAKTİKASI

A.K. Namazov^{1a}, N.B. Məcidov^{2b}, İ.V. Kivixaryu^{3c}, K.A. Namazov^{1d}

¹Ulu Petr San-Peterburq Politexnik Universiteti, San-Peterburq
²Azərbaucan Dövlət Bədən Tərbiyəsi və İdman Akademiyası
³P.F. Leskaft adına Milli Dövlət Bədən tərbiyəsi, İdman və Sağlamlıq Universiteti

<u>aorcid.org/0000-0001-5044-656X</u>

bnazm.majidov@sport.edu.az, orcid.org/0000-0001-5420-7929

corcid.org/0000-0003-4285-3493
dorcid.org/0000-0002-2976-2629

Annotasiya. Müasir zamanda bədən tərbiyəsi və idman həyat tərzinin ayrılmaz hissəsi olmuşdur. Ümumtəhsil məktəblərində fiziki tərbiyə dərsləri yeganə yer deyil ki, idmana həvəsləndirilir. İldən-ilə daha çox insan stadion-

ları, idman zallarına gedir və intensiv fiziki hərəkətlərlə məşğul olur. Bununla əlaqədar olaraq idmançıların vəziyyətinə tibbi nəzarət etməyə təlabatı artır. Eyni zamanda özünə nəzarət və zədələnmələrin profilaktikası böyük

ASAPES

əhəmiyyət kəsb edir. Məqalənin məqsədi fərdi bədən tərbiyəsi və idman məşğələlərində özünə nəzarət və zədələnmələrin profilaktikası xüsusiyyətlərini öyrənməkdən ibarət olmuşdur.

Açar sözlər: ilkin nəzarət, ozünə nəzarət, məşq prosesi, özünə nəzarətin gündəliyi, fiziki hazırlıq, texniki təhlükəsizlik, idman zədələnmələri.

САМОКОНТРОЛЬ И ПРОФИЛАКТИКА ТРАВМАТИЗМА У СТУДЕНТОВ НА ЗАНЯТИЯХ ФИЗИЧЕСКОЙ КУЛЬТУРОЙ И СПОРТОМ

А.К. Намазов 1a , Н.Б. Меджидов 2b , И.В. Кивихарью 3c , К.А. Намазов 1d

¹Санкт-Петербургский Политехнический Университет Петра Великого ²Азербайджанская Государственная Академия Физической Культуры и Спорта ³Национальный Государственный Университет Физической Культуры, Спорта и 3доровья имени П. Ф. Лесгафта

^aorcid.org/0000-0001-5044-656X

bnazm.majidov@sport.edu.az, orcid.org/0000-0001-5420-7929

^corcid.org/0000-0003-4285-3493

^dorcid.org/0000-0002-2976-2629

Аннотация. Физическая культура и спорт стали неотъемлемой частью жизни современного общества. Уроки физкультуры в школах - не единственное место, где поощряется спорт. С каждым годом все больше людей посещают спортивные стадионы и залы и занимаются интенсивными физическими упражнениями. В связи с этим все большее значение приобретает медицинский контроль за состоянием здоровья спортсменов. Также большую роль играет самоконтроль и меры по профилак-

тике травматизма. Целью данной статьи является изучение особенностей самоконтроля и профилактики травматизма на самостоятельных занятиях физической культурой и спортом.

Ключевые слова: первичный осмотр, самоконтроль, самонаблюдение, тренировочный процесс, дневник самоконтроля, физическая подготовка, техника безопасности, спортивные травмы.