SPORTS TRAINING TECHNOLOGY, BASED ON A PSYCHEMOTIONAL APPROACH AND SUPPLEMENTED BY THE INFLUENCE OF MUSIC ASSISTANCE

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ABSTRACT

Based on modern concepts and research results in neurophysiology, the prospects and significance of the directed, conscious regulation of the psycho-emotional state of athletes in the training process are substantiated. The methodology of a comprehensive physical culture and sports technology based on such an approach (psychophysical training) is considered, taking into account its application in the most significant area - para-Olympic sports. The mechanisms of the complementary effect of musical accompaniment (functional music) and its influence on the psycho-emotional state of athletes are described.

Keywords: Physical culture, sport, sports medicine, training process, functional music, psycho-emotional state, neurophysiology, para-Olympic sport.

INTRODUCTION, LITERATURE REVIEW AND DISCUSSION

Even ancient philosophers and scientists, the founders of modern medicine, noted a strong relationship between physical exercise and physical health. Hippocrates and Geradicus (484-425 BC) recommended dosed walks, running, gymnastics, and massage to treat patients. Aristotle wrote: “Life requires movement.” “Nothing depletes and destroys a person like prolonged physical inaction.” And Plato, argued: “Gymnastics is a healing part of medicine.” Avicenna recommended the use of physical exercises in the treatment of injuries and many diseases, substantiated the usefulness of performing physical exercises and hardening procedures, described many gymnastic and applied exercises [1]. These ideas have been developed in the development of areas such as Adaptive and Therapeutic Physical Culture, Physical Rehabilitation.

Also, a strong mutual relationship was observed and noted with another component - psycho-emotional health. However, although this connection was taken into account in public health, the concept of the dichotomy of the mind and body prevailed, according to which mental and physical health are considered as separate components of human well-being. Modern research casts doubt on these beliefs. The harmony of psycho-emotional and physical forces increases the reserves of health, creates the conditions for creative self-expression and is not a concomitant factor, but a fundamental basis for the harmonious development and life of a person [2].

To be healthy is a person’s natural desire. But health means not just the absence of disease, but harmonious physical, mental and social well-being [1]. The fundamental method and, at the same time, the goal of its achievement is a positive emotional balance.
Currently, ideas about concepts such as:

- "comfort zone" is a state in which basic (physiological, mental and social) needs are realized, necessary, but not always sufficient;
- "entry into the stream" is the achievement of the peak state of a person's activity when he is focused on one thing and is completely immersed in its implementation.

However, it is often implied that for personal (and physical) development, it is necessary to leave the comfort zone (i.e., upset the positive emotional balance). In addition, although the usefulness of entering the stream is noted, conflicting techniques and practices are often recommended (due to the underestimation of the need to maintain, again, a positive emotional balance).

On the contrary, the most effective approach seems to be in which the training process and psycho-emotional preparation are based on the methodical expansion of the "comfort zone", when the process of performing exercises is organically included in this zone. And "entering the stream" seems to be a peak expansion of the "comfort zone" that is used when performing exercises to increase strength and endurance, close to the limit of possibilities. Most often, this happens spontaneously and is perceived as a useful but concomitant factor, however, it can be assumed, based on practice, that at the basis of almost all significant sports achievements, such an expansion of the psycho-emotional state played a significant, sometimes decisive, role.

It is assumed that the purposeful, systematic construction of a set of classes based on such an approach - psychophysical training - based on psycho-emotional techniques (self) affecting physiological tone, regulating breathing, imaginative presentation of the joint functioning of internal organs, psychological reinforcement of potential and potential motivation, development and activation of attention, and will, the formation of positive stimuli and an adequate reaction to them.

Modern neurophysiology considers the structure of the central nervous apparatus of emotions as interacting with a combination of brain formations of various levels, including the limbic system (hippocampus, tonsil, and hypothalamus). The limbic structures, interacting with the reticular formation of the stem part of the brain, form the central nervous substrate of emotions. The impact on this system in humans leads to the formation of emotional sensations. The physiological characteristic of emotions is primarily associated with the spread of excitations from the hypothalamic region to all effector organs. The primary biological emotional state and its external manifestation, realized on the periphery in various nervous and humoral components, is responsible for the hypothalamus. In this case, the subcortical region of the brain is a kind of energy reservoir, which, depending on the quality of the emotion that has arisen at the moment, involves in the activity the corresponding areas of the cerebral cortex [5]. It is this connection that is used and strengthened under the influence of psychophysical training.

Psychophysical training helps to optimize the exercise, preventing the manifestation of excessive, involuntary, uncontrolled movements. The complex should include exercises to control tension and muscle relaxation, which in combination with special breathing exercises will have a regulatory effect on the smooth muscles of the internal organs and vascular system [9].

In psychophysical training, a significant role is given to psychology, that is, consciousness and its effect on emotions. As the highest regulatory function of the nervous system, consciousness

stimulates the biorhythms of the brain and motivates the individual's desire for harmonic development.

The most important component of psychophysical training are techniques that regulate the processes of respiration. They reduce the effect on the body of oxygen deficiency and muscle acidification, and also contribute to balancing the nervous processes, which increases the effectiveness of bio motoric acts (figuratively represented movements and conditions).

The body's need for oxygen depends on the degree of muscle tension, and under the influence of breathing exercises, the flow of impulses coming from the receptors of muscles, ligaments and joints to the central nervous system decreases. A switch is made from muscle tension to relaxation and vice versa, which has a beneficial effect on the functioning of nerve centers, in particular the autonomic system. Under the influence of special breathing exercises, an additional capillary network of the alveoli is connected, which is usually in an inactive state, while the lumen of the bronchi increases, which leads to more complete air renewal in the alveoli and to improve pulmonary ventilation in general.

Proper use of breathing exercises increases the body's resistance to oxygen deficiency, which has a beneficial effect on enzyme systems, blood supply to the heart and brain. These exercise systems have an important effect on the regulation of blood pressure, the expansion of blood vessels and the network of capillaries, optimizes the processes of providing the body with oxygen and the output of oxidation products outside, balancing the nervous processes.

It is known that as the highest regulatory function of the nervous system, consciousness stimulates the biorhythms of the brain and the desire of the individual for harmonious development. An important emotional factor affecting motor activity is music, musical accompaniment, and functional music.

Functional music is able to stimulate and regulate the rhythm of movements. At a subconscious level, the athlete strives to the rhythm of perceived music: to walk, run, swim, row, pedal the bike, strike in boxing or make other movements. Also, the harmony of the rhythm of one's own movements and the accompanying music evokes a feeling of special pleasure and increased satisfaction with one's actions and movements. This effect is based on the close connection of rhythmic sound vibrations with a sense of movement, the presence of auditory-motor coordination of motor actions, which significantly facilitates their implementation. The body is characterized by the borrowing of rhythms offered by the external environment. At the same time, he seems to be tuning in to the proposed rhythm, accelerating or slowing down the pace of his activity in accordance with specific circumstances [7].

Another aspect is the impact of music on the activation of positive emotions. Activities accompanied by positive emotions reduce the objective and subjective symptoms of fatigue, stimulate attention, perception, concentration and thinking. Emotional mobilization leads to an increase in the level of maximum capabilities of the body, causes inspiration. This gives nerve and muscle cells the highest stimulus of activity, unattainable with the separate use of only conscious, strong-willed commands.

The impact of music on the emotional sphere also affects the mechanism of development of fatigue, inhibiting it and increasing efficiency in the process of activity. So, as a result of prolonged physical and mental work in the centers of the motor apparatus and nerve cells, exhaustion processes begin to prevail over the recovery processes. At a certain level, protective

braking mechanisms that limit the continuation of activity are reflexively activated. Emotional arousal from functional music involves a number of new, additional subcortical centers in active work, which pushes the activation of the inhibition process [8]. This is especially important when performing physical exercises to develop strength and endurance. Musical accompaniment helps to maintain a high intensity of training even with great fatigue, when the athlete's will is already at a loss to ensure this.

The aspect of the impact of music on the psyche, the central nervous system of the athlete, on the formation of positive emotions during the training process is also important, this also affects the intensity of training, their greater volume and decrease in the stresses of the nervous system. Consideration of all these factors helps to achieve high results in physical culture and sports and allows you to expand the possibilities of targeted musical stimulation and regulation in physical education and sports.

Justification of the prospects of a systematic approach based on conscious, purposeful regulation of the psycho-emotional state of athletes in the training process requires confirmation by applying them in practice, with measurement and analysis of the results. Private testing of the methodology in the most indicative field of application is planned for the near future with a group of athletes with disabilities.

This article is devoted to general issues of sports training, but the described approach is of the particular importance when working with athletes with disabilities.

The solution to the problems of socialization of people with disabilities has become increasingly important, which does not depend on the level of socio-economic development of a particular state. Considerable attention is being paid all over the world to strengthening the role of physical culture and sport in the physical and social adaptation of persons with disabilities. These trends are reflected in our country: our athletes are expanding their participation in the Paralympic movement, internal competitions are increasingly being held.

It should be noted that in the development and practical application of physical culture and sports technologies for athletes with disabilities, it is especially important to strive to ensure that sports classes and trainings are interesting and attractive, evoke feelings of joy and satisfaction in them, which lead to increased training efficiency and consolidation needs for them.

REFERENCES

1. Попов С.Н., Валеев Н.М., Гарасева Т.С. и др. Лечебная физическая культура. / Учебник для студентов высших учебных заведений. / Под редакцией Попова С.Н. – Москва. Издательский центр «Академия» 2009 г.- 416 с.

Popov S. N., Valeev N. M., Garaseva T. S. and other. Medical physical culture. / Textbook for students of higher educational institutions. / Edited by Popov S.N. - Moscow. Academy Publishing Center 2009 - 416 p.

2. Физическая культура и спорт с элементами адаптивной физической культуры. / Учебное пособие / Под общей редакцией Магомедова Р. Р. – Казань. Изд-во «Бук», 2017 г. - 476 с.

Physical culture and sports with elements of adaptive physical culture. / Textbook / Under the general editorship of Magomedov R. R. - Kazan. Buk Publishing House, 2017 - 476 p.

3. Иргашев Ш.Б. Медицинская валеология.– Ташкент. 2012 г. – 335 с.
Irgashev Sh.B. Medical Valeology. - Tashkent. 2012 - 335 p.
4. Patel V., Saxena S., Mudge M., Maselko J., Philips M.R. et al. Global Mental Health. London. Lancet Magazine 2007.
5. Андреева И. Н. Азбука эмоционального интеллекта. - СПб. Издательство БХВ-Петербург. 2012 г. - 288 с.
Andreeva I. N. Alphabet of emotional intelligence. - SPb. Publishing House BHV-Petersburg. 2012 - 288 p.
6. Радионов А.В. Практика психологии спорта. Ташкент, Издательство «Lider press», 2008 г. – 236 с.
Radionov A.V. The practice of sports psychology. Tashkent, Lider press Publishing House, 2008 - 236 p.
7. Смирнова Ю.В., Сайкина Е.Г., Кадыров Р.М. Музыкальное сопровождение в физической культуре / Учебно-методическое пособие. - Санкт-Петербург. Издательство РГПУ им. А. И. Герцена. 2010 г. - 107 с.
Smirnova Yu.V., Saykina EG, Kadyrov R.M. Musical accompaniment in physical culture. / Teaching aid. - St. Petersburg. Publishing house RSPU them. A.I. Herzen. 2010 - 107 p.
8. Кирнарская Д.К. Психология специальных способностей. Музыкальные способности. – Москва. Таланты XXI век. 2004 г. - 496 с.
Kirnarskaya D.K. Psychology of special abilities. Musical abilities. - Moscow. Talents XXI century. 2004 - 496 p.
9. Динейка К.В. Уроков психофизической тренировки. – Москва. «Физкультура и спорт». 1987 г. - 63 с.
Dineika K.V. Lessons of psychophysical training. - Moscow. "Physical culture and sport." 1987 - 63 p.