- 2. Park, S.Y. (1994). Theory and practice in leisure and recreation. Seoul : Ilsin publishing.
- 3. Vinogradov, G.P. (1997). Theory and methods of recreational physical exercise : monograph. St. Petersburg : SpbSAFC named P.F. Lesgaft.
- Voronkov, A.V. (2009). Problem of control of training load at physical training lessons with a recreative orientation // First International scientific congress "Problems of sports education: contents, orientation, technique, organization". Belgorod.

Популярным средством физической культуры среди молодежи являются занятия атлетизмом с целью укрепления здоровья, повышения физической подготовленности, работоспособности и снижения психоэмоционального напряжения. Была разработана методика занятий студентов атлетизмом оздоровительно-рекреативной направленности с применением дозированной, комфортной нагрузки для занимающихся с учетом индивидуальных особенностей, возможностей и потребностей.

После эксперимента получены данные, свидетельствующие о достоверно более высоких результатах в экспериментальной группе по сравнению с контрольной по показателям индекса Руффье, антропометрии, гарвардского степ-теста, силовых упражнений, а так же по показателям самочувствия, активности, настроения и учебной успеваемости. Представлены рекомендации по силовым занятиям студентов оздоровительно-рекреативной направленности.

**Ключевые слова**: Восстановление сил, здоровье, атлетизм оздоровительно-рекреативной направленности.

Отримано: 8.06.2013

УДК 37.091.32:796.412

## Andrey Zaikin, Elena Glavatskaya

## STEP AEROBICS AT THE PHYSICAL EDUCATION LESSONS

An analysis of the literature, which provides an explanation of the origin and development of step aerobics is done in the article.

The positive impact of step aerobics on the bodies of schoolchildren is substantiated, methodical instructions for teachers of Physical Education during step aerobics lessons, are defined.

Key words: step aerobics, stress, teacher, methods, muscles.

Statement of the problem. Today it is necessary to improve traditional forms of becoming healthy and to introduce new forms and methods of health improvement, physical culture and sport activities. No one doubts the necessity of physical activity for human health. But how hypodynamia could be compensated, what is the load – it remains debatable.

To achieve definite results in the work on the body can be reached by using various means: racing, cycling, swimming, gymnastic exercises, aerobics.

The term "aerobics" originates from the word aerobic, which means "oxygen" (from Greek words "aero" – air and "bios" – life), was first introduced by Dr. K. Cooper, the famous American expert in the field of mass physical culture.

Later in the U.S. and Europe, aerobics began to develop in different directions – aerobic dance, aerobic gymnastics, Jane Fonda's aerobics, step aerobics, shapes aerobics and others. The content of these areas differ slightly from each other, but in fact they are combined into one form of training of this kind – rhythmic gymnastics, which is widely used as a means of physical education in secondary schools, colleges and universities.

Step aerobics affects the body holistically, while gently corrects the shape of the legs (aerobics is quite effective for those groups of muscles which are very difficult to involve: the buttocks, back of hips and muscles, thighs), developing the desired group muscles. A simulator is used to perform exercises for the muscles of the hands, abdomen, back, etc. Your body is more graceful, flexible, pliable and sturdy.

Purpose of work is to study the effect of step aerobics classes on the body of schoolchildren.

Results of research. The current (continuous) and mass-current (with minimal interruptions) methods of exercises are specific to each step aerobics lesson. Their use provides for integrated effects on those who engaged with it. It should also be mentioned that the necessity for training in reducing the intensity of their performance places a high demands on the professional training of teachers of Physical Education.

In each practical activity each teacher uses special terminology, techniques of visual information about the contact with the pupils to give them information about the exercises without interrupting a lesson, to correct mistakes and for encouragement.

All types of facilities that apply for communication with the pupils can be divided according to their destination on such techniques (groups):

- training exercises and their conducting;
- correction of mistakes;
- load regulation;
- organization of pupils.

Each of these groups has its own specific tools that the experts in the field of Physical Education should be proficient. For the teachers of Physical Education who conduct step aerobics classes, the requirements for knowledge of these techniques and the ability to use them correctly are also applied. Often this ability of using the instructions and commands is called "cuing" (from English "to cue"). "Cuing" implies combining (the simultaneous use) of verbal and visual (non-verbal) techniques.

The instructions submitted by a teacher during the lesson should be correct in form and clear. The use of English phrases reduces the availability of information for pupils. The instructions for students to use the correct time (not to violate the lesson and help them), be specified, accurate and convincing.

During the presentation of verbal instructions only two words that are adjuvant explanations about the changing of movements, praised or correction are used. The effectiveness of these instructions are mainly determined by the Physical Education teacher's ability to timely, clearly and loudly present them without interrupting the demonstration movements. This puts certain requirements for general physical and technical preparation for teachers of Physical Education.

The methodical feature in conducting step aerobics classes is predominantly the preferred a demonstration of exercises by the teacher or instructor, who is selected from among the students who has had the necessary training. This reduces the amount of time needed for.

In order to sustain interest in the lessons of step aerobics teacher should follow certain teaching strategies and complexities of step aerobic programs depending on motor experience, training, age of schoolchildren. In this regard, during the lesson the specific techniques that provide diversity (variation) in step aerobic moves is widely used. These include the following methods:

- the musical interpretation;
- the complexities;
- the similarities;
- "the California style".

During the preparation for classes the teacher plans physical exercise in advance, but its corrections will be also needed during the lesson. The teacher of Physical Education should see all students (stand in front of them) and notice signs of overstrain or insufficient recovery after individual exercises. These signs may include heartbeat, rapid breathing, profuse sweating, redness or paleness, impaired of coordination of movements or techniques. When committing these changes you should alter the stress: reduce or increase the rate (movements), increase or decrease the amplitude of movement, access to low or high intensity of movements, for what the bumping and jumping exercise, move to step can be eliminated or added.

In emphasizing the positive impact of exercise loading dosing is dependent on the gender, age, level of physical preparedness of students and based on determining the level of physical condition.

The value of loading is a major factor which determines the degree of influence of the classes of step aerobics on the bodies of schoolchildren.

The intensity of physical activity during the classes of step aerobics is due to:

• the tempo of music accompaniment: the higher the rate of music, the higher the intensity of exercise;

• the height of the step platform: the higher the platform, the higher the intensity;

• a combination of step-movements: a program that includes a large percentage of lunges, movement of the feet, alternating leading foot and jumping, characterized by higher energy consumption rate than the program that based on the basic step and the crossing of the surface of step-platform;

• range of motion in joints: hand movement with limited appropriate replacement requires less expenditure than hand movement with greater or maximum amplitude. The intensity of loading and endurance is defined as the speed of execution, the time of execution and pace. To assess the functional status of students, different methods are used in practice, so one can recommend them to target training heart rate zone, so-called "optimal pulse." Many experts estimate the level of preparedness and the cardiovascular system by the Harvard step test, calculation of indicators PWC-170, the threshold of aerobic metabolism and the threshold of anaerobic metabolism.

Recording these indicators is associated with sufficient time costs, and interpretation of the obtained materials requires specific teacher knowledge in the field of sports physiology and medicine. Therefore, in practice to evaluate the significance of the aerobic of step aerobics classes is easier to measure pulse during every lesson. Comparing the results with optimal pulse model, you can adjust (increase or decrease) the training load and thus to achieve the required health effect.

**Conclusions.** Step aerobics affects the body comprehensively while gently corrects foot shape (aerobics is quite effective for those groups of muscles which are very difficult to involve: the buttocks, the hips and the back of hips), developing the desired group of muscles. A trainer is used to perform exercises for the muscles of the hands, prelum abdominale, back, etc. Aerobics has a positive effect on the entire body, strengthening the respiratory, cardiovascular, muscular and nervous system, normalizing blood pressure and activity of the vestibular apparatus.

During the preparation for classes the teacher plans physical exercise in advance, but its correction is needed during the lesson. The Physical Education teacher should see all students (stand in front of them) and observe signs of overstrain or insufficient recovery after individual exercises.

## **References:**

- 1. Eder D. Sex Differences Children's Frendships, in American Sociological Review / D. Eder, M.T.Halliman. 2003. №43. P.223-229.
- Balog J.E. The concept of health and the role of health education / J.E. Balog // J.Sch. Health. - 2001. - Vol.51. - №8. - P.461-464.
- Hamrick M.N. Decision making and the behavior gap / M.N. Hamrick, D.J. Anspaugh, D.L. Smith // J.Sch. Hlth. – 1990. – Vol. 50. – №8. – H.455-458.
- 4. Puri R. Impact of nutrition and health education on rural preschool children / R. Puri, S. Mehta // Indian-Pediatr. 2004. Jan 31(1). P.125-128.

У статті проведений аналіз літературних джерел, які дають пояснення щодо виникнення та розвитку степ-аеробіки. Обґрунтовано позитивний вплив степ-аеробіки на організм школярів, визначено методичні вказівки для вчителів фізичної культури при проведенні занять зі степ-аеробіки.

**Ключові слова:** степ-аеробіка, навантаження, вчитель, методика проведення, м'язи.

Отримано: 18.07.2013