

STIMULATION OF REGENERATIVE PROCESSES OF QUALIFIED ATHLETES SPECIALIZING IN THE HIGH JUMP WITH A RUNNING START

Kutek T.B.

Zhytomyr State I. Franko University

Annotation. *Purpose.* To study the effect of reducing funds for special trained skilled athletes who specialize in the high jump with a running start. *Results.* It is important to target the installation of a series of experimental studies was determining the effect of reducing funds for the activation of the triggers special preparedness and conditions that provide a higher level of manifestation of special endurance for competitive activities. *Conclusions.* Using a research complex reconstruction funds were part of the funds and the formation of non-specific influences on this basis mobilization capabilities athletes in various conditions of training and competitive activities. Important in this case was the use of non-specific nature of the natural resources with minimum waste of time.

Keywords: stimulation, recovery, performance, readiness, mobilization.

Introduction

The problem of recreational process's stimulation for sportswomen, who specialize in running high jumps has been solved completely yet. It is conditioned by increasing competitiveness of world sport countries, by more difficult conditions of achievement of every new record [3, 6, 7].

Solution of this problem requires development of not only means of influence on organism, oriented on increasing of special preparedness but also means of recreation and correction of organism's state for maximally short period of time [3–5]. If not to stimulate recreation mechanism on proper level, it will be impossible to ensure steady progress in sport [1, 9, 10-15]. Just sport activity is the most fruitful sphere for studying of human reserve abilities, because this activity is realized in conditions of extreme efforts [2, 4, 5, 8, 9].

The research was carried out as per topic 2.11 –Theoretical-methodic principles of management of sportswomen's training in track and field jumps –of scientific & research work's plan in sphere of physical culture and sports for 2011-2015 of Ministry of Ukraine of family, youth and sports, State registration number: 0111U003839.

Purpose, tasks of the work material and methods

The purpose of the work is to analyze influence of recreational means on special preparedness of qualified sportswomen, who specialize in running high jumps.

The methods of the research are: theoretical analysis and generalization of literature data, pedagogic observation, pedagogic experiment, methods of mathematical statistics.

Results of the research

Application in the research of recreational means' complex was a part of system, developed by author as well as by V.Ye. Vinogradov [4, 5]; system of non-specific influence's means and, on this base, formation of sportswomen's mobilization abilities in different conditions of training and competition activity. It was important, with it, to apply non-specific natural means with minimal time consumption. In this connection we used complex of special exercises of 10-12 minutes duration. It created possibility for its repeated using during day in process of sportswomen's training and preparation for starts. An important condition for application of the mentioned complex of stimulating exercises was its including in general complex of recreational means. I.e. in actual conditions of competition functioning it should be coordinated with recreational means, which include general massage, special massage and other means for prevention from traumas considering individual features of every sportswoman [10].

At first stage stimulating effect of the tested recreational means' complex was studied in homogeneous group of sportswomen, who specialize in running high jumps.

The complex of means was applied in certain sequence:

1. Massage techniques:

- neck stroking to the right and to the left – 10 times every side; rubbing (with rib of hand, by two hands) – 10 times from every side; pinching with two hands – 10 times from every side;
- segment massage of lever projection from right side of backbone and projection of spleen – from left side;
- massage stroking in area of liver from right side of abdomen; position – lying on left side (20 times);
- massage stroking in area of spleen from left side of abdomen; position – lying on right side (20 times);
- massage stroking in areas of lever and spleen with two hands (position – lying on back – 20 times); масажні
- rubbing of neck-occiput area with finger tips of both hands (position – lying on back);

2. Complex of exercises with partner in positions lying on abdomen, on back;

- i.p. – arms in front of chest, hands are clutched, elbows – directed aside, right leg – bent in knee (shin is perpendicular to floor) is supported by partner. Sportswoman stretches leg overcoming resistance of partner.
- i.p – leg is supported by partner by shin. Shin is s moving upward to buttock, overcoming resistance of partner. ногу утримує партнер за гомілку. Рух гомілкою до сідниці, долаючи опір партнера.
- i.p.– the same, right shin is located vertically. Sportswomen unbends it, overcoming resistance of partner.

Exercises in position lying on back:

- i.p.- right leg is bent in knee, foot is located on floor, outside of left knee. Knee is moving aside, overcoming resistance of partner.
- i.p.- right leg is bent in knee, foot is located on floor near left knee. Knee is moving inside, overcoming resistance of partner.
- i.p.- right leg is bent in knee, shin is parallel to floor. Partner stretches the leg of sportswoman, overcoming her resistance.
- i.p. -right leg is raised upward (perpendicular to floor). Sportswoman moves leg down, overcoming resistance of partner.
- i.p. - legs are stretched, sportswoman moves right knee up to right shoulder, overcoming resistance of partner.
- i.p. - the same. Unbending of right foot in ankle with overcoming resistance of partner.
- i.p. - arms and chin are pressed to breast, legs are bent in knees and in hip under direct angle. Partner tries to stretch sportswoman's legs by pushes.
- i.p. - arms and chin are pressed to breast, torso is raised, legs are bent in knees, feet are located on floor. Partner tries to straighten torso by pushes in shoulders. .

Every exercise with partner is fulfilled 2-3 times. Characteristic feature of these exercises is that sportswomen manifest short-term efforts in supplementing mode, which are combined with intensive (as per rhythm of exercise) exhale at the moment of tension.

Effectiveness of the offered complex of exercises was tested in the following exercises: three steps- running high jump and 30 meters run, which have the highest correlation connection with sport results in high jumps (correlation coefficient from $r = 0.662$ to $r = 0,964$ accordingly) [1].

In fig. 1 we present diagram of results' dynamic of test —“three-step running high jump” under influence of stimulation exercises' complex.

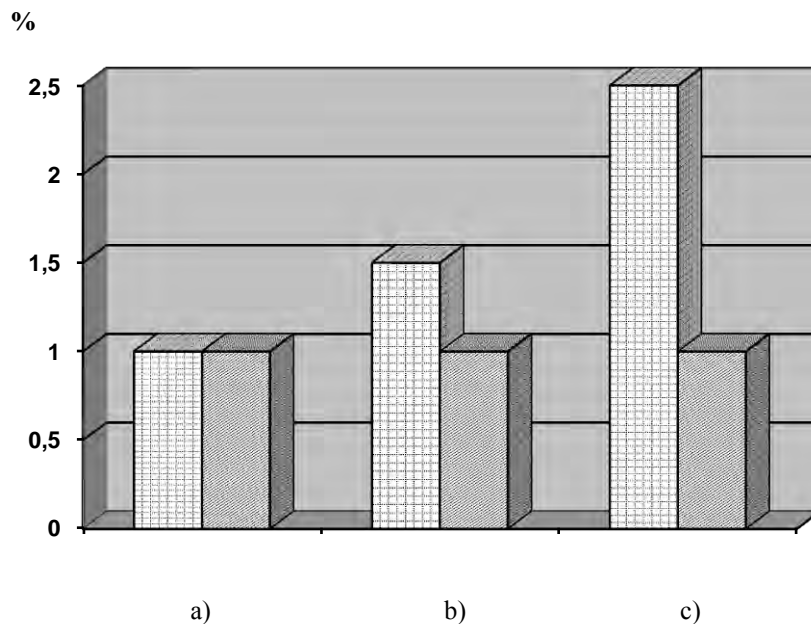


Fig.1. Results' dynamic of three-step running high jump (%):

- a) without application of stimulating exercises' complex;
 - b) with application of stimulating exercises' complex in experimental group 1 ($p < 0.05$);
 - c) with application of all complex in experimental group 1 ($p < 0.05$).
- ▨—experimental group 1; ▩—experimental group 2.

In fig. 2 we can see dynamics of 30 meters run results after application of stimulating exercises' complex. Under influence of the complex result of repeated 30 meters running improved, owing to increasing of running speed at the second half of distance. Under influence of complex application of massage techniques and exercises with partner still higher mobilization effect of load was reached. It is witnessed by reducing of time, spent for running of first 15 meters of distance and higher results of covering of 30 meters distance. We can affirm that improvement of 30 meters' running result is connected with application of mobilization techniques. Complex application of massage techniques and exercises with partner permitted to mobilize additional reserves of organism and stimulate higher effect of load.

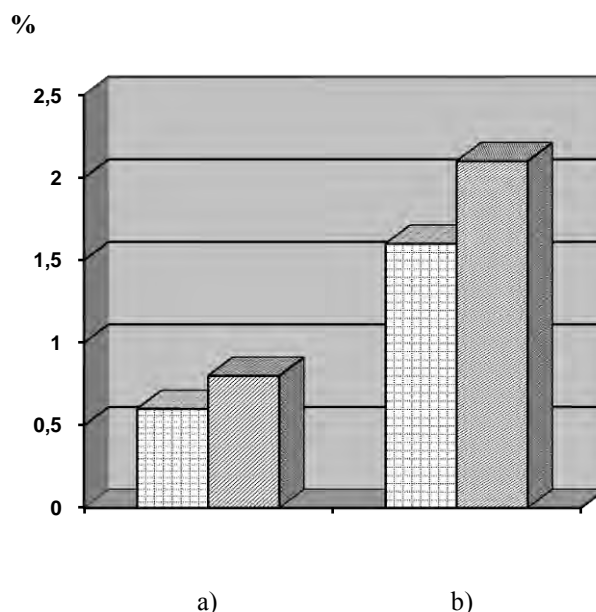


Fig.2. Results' dynamic of 30 meters' run (%):

- a) without application of stimulating exercises' complex;
 b) with application of stimulating exercises' complex in experimental group;
 ▨ –experimental group 1; ▩ –experimental group 2.

Effect of stimulating exercises was proved as a result of analysis of competition activity's individual results. Such approaches can be used in practice only for qualified sportswomen. It is grounded by need in wholeness and continuity of process of recreational means' application, their adaptation to physical condition of sportswomen and conditions of further starts in competition micro-cycle. Studying of these means' effectiveness can be applied to separate sportswomen and is of great interest being applied in conditions of natural competition activity. That is why such researches often have generalizing character concerning practical experience of using of recreational means.

Conclusions:

The obtained results witness about principle possibility of application of recommended complex of targeted stimulating influences for increasing of effectiveness of sportswomen's, who specialize in running high jumps, training and competition activity. Influence of recreational process imposes stimulating effect on some manifestations of special preparedness of sportswomen, who specialize in running high jumps.

In the process of a number of researches it was verified that part of special influences' complex have not only stimulating effect but can purposefully increase special preparedness with its application between repetitions of sprinter exercises.

The obtained data as well as accumulated significant experience of such stimulating exercises' application in conditions of competition micro-cycles permitted to include them in program of training of qualified sportswomen.

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Information about the author:

Kutek T. B.: ORCID: 0000-0001-9520-4708; kuttam2010@rambler.ru; Zhytomyr State I. Franko University; Velyka Berdychivska Str. 40, Zhytomyr, 10008, Ukraine,

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