Self-Regulation - A Way to Optimize Athletic Performance

SELF-REGULATION - A WAY TO OPTIMIZE ATHLETIC PERFORMANCE

Neluța SMÎDU

Abstract
Sport, because of the so obvious competitive element, generates sometimes negative emotions and stress. The emotions manifestation in sports, mainly the negative ones, is a problem of maximum interest both for athletes and coaches. The secret of high performance lies in teaching the athletes to control their emotions and thoughts, especially in extreme situations. In this context it can be said that psychological training is essential and represents a regulating factor. This is made by a psychologist and a coach and aims to offer each athlete what suits him: the performance’s motivation; reducing the negative estate of start; fighting stress phases, using either the verbal stimulant (individual conversations) or specific technics.

Keywords: sport, competition, self-regulation, athletes, performance

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Introduction

Sport performance, mainly the one at a higher level, is stressful in its all: the trainings - by their term and intensity, by the sacrifices it demands to the athlete; competitions- by their high emotional quotient and motivational, individual and social engagement. At all this, the social relationships the sport generates are added. All these producing strain, mental tension, claiming physical and mental efforts of adaptation and balancing.

Having a great amount of emotional load, sport competition brings the psycho-behavioral system in an extreme situation. The stressful factors that determine this estate are: external requests (cold, warmth, jet lag), internal (great muscular-motion efforts); psychological intellectual-emotional – volitional requests (decisions in situations of uncertainty and time crisis, anxiety, reactions to failure or success, attention, vigilance, voluntary maximal effort, combativeness); psychosocial requests (leading factors and press critics, family and closed ones’ opinion, the appreciation of viewers); organizational factors (regulatory restrictions, high distance displacements and unfamiliar environments, competitions with many eliminatory series).

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“Stress” is defined by Hans Selye as the non-specific response of the body to any demand for change. „Stress is the body’s reaction and not the stressful situation… The same situation can provoke to different athletes, physiological reactions, more or less highlighted.” [1]

Later on, making research in this domain, Hans Selye (1991) discovers that the body’s reaction to a stressful agent has three phases: firstly, there is an alarm reaction during which the whole body mobilizes to defend itself: the heart beats faster, the breathing accelerates, and the body is ready to react. Secondly, there is the resistance phase, during which the person adapts to the stressful agent. Thirdly, there is the exhaustion phase.

The relevant literature points out two main forms of competitive stress: the fear of failure, the most frequent and the fear of success, less frequent and with more subtle mechanisms. The main challenge of coaches and athletes is to control the stress level in order that they may avoid unpleasant effects of hypo and hyper-manifestation of it.

Psychologists have identified two main categories of stress: eustress (motivating stress, from the Greek word „eu”-good, harmonious) and distress (disincentive stress, „bad”). Stress determines mental manifestations (cognitive and affective with behavioral expression) and functional turbulences (psychosomatics), with impact on human body.

The psycho-behavioral changes which describe stress are:

- cognitive changes: the fall of attention, concentration, memory, ideational bottleneck, conceptual disorder, the fall of imagination, vigilance, overrating or underestimating the difficulties, self-doubt or exaggerated self-esteem;
- affective changes: irritability, annoyance, anger, fury, restlessness, anxiousness, fear, apathy, dissatisfaction, boredom, sadness, the sense of pointlessness (in distress) or joy, laugh, satisfaction (in eustress);
- behavioral changes:
  a. as manifestation or externalization of mental changes: the inward-looking, refusal to work, avoidance of responsibilities, delays at work, neglecting the physical appearance, legal issues(debts, fines, uncontrolled violence);
  b. conservatory-style: coffee consuming, alcohol, smoking, medication excess, tranquilizers.

In elite sports, the self-regulation problem is of the most current problems, taking into account the special importance of the psychological factor during the sports activity. Self-regulation has been studied by numerous sport psychologists (I.O. Cernicova, Daschievici, 1972; Rodionov, 1983; L. Ghisen, 1983; I. Holdevici and I.P. Vasilesescu, 1988; M. Epuran, 1990). In most of their work, self-regulation is
treated as a way of adjustment for emotional states before the competitive start of the athletes.

Under research made by S. A. Lear, A. Brozic (1999), the more developed the moral self-regulation ability, the higher the athletes’ performance during competitions. [2]

The conduct and the character of tensional states before start are determined by the level of athletes’ self-regulation ability.

The base of self-regulation consists of the athletes’ capacity of understanding themselves- self-knowledge- by observing own conducts and conditions, by critical review of their acts and thoughts. The self-regulation activity has the characteristics of a command and control system which demands steps such as: self-control, activation, improvement, balancing, restructuring, compensation, correction, where efficiency is confirmed by social feed-back (comparing the results with the proposed model).

From made research concerning the athletes’ ability to lead by themselves some activities from the adaptive behaviors sphere, it has been observed that only some of them know a part of the routine’s rules which provide the reliability of performance conducts. Lots of them make a so-called empirical self-regulation by impersonating some models or based on their own experience.

Self-control is achieved in:
- the affective sphere, especially towards emotions, anxiety and negative attitudes;
- the voluntary sphere, by activation, growing the voluntary effort, courage, perseverance, combativeness;
- the ideate sphere, by maintaining lucidity in difficult situations, extreme ones, by keeping or letting go some useless ideas, ide motor coaching;
- the motivational sphere, by increasing the performance motivation and the level of aspiration between optimum limits.

Psycho-behavioral adjustments are of higher order, being not just simple reactions more or less adequate at others’ indications, but chosen reactions, based on appreciating the opportunities and on the efficiency of the proposed actions. The largest share is for the regulatory mechanisms in precompetitive and competitive moments, when the athlete’s conduct is directly and majorly responsible, performance-generator. As an example I can offer a segment from the activity of high performance sports in the precompetitional period. In the week prior to the competition, the trainings grow in frequency and intensity, stimulating the competitional atmosphere. The game room, the duration of the simulation game, executing the techniques in speed regime, all these are executed as in a real competition. Right next to these elements intervenes the psychical pressure from the trainer. Depending on the sportsman, the trainer tries to motivate the players in
order to obtain performance, through accountability the players and adapting eachs’ game style in the competition.

Under these conditions, through intrinsic motivation – the sportsman’s wish of obtaining the sports title also through extrinsic motivation – from the trainer and from the group pressure, often sportsmen register a high anxiety level.

In stressful situations generated by sportive and competitive activity we frequently see sportsmen overwhelmed with such a high level of anxiety that either they cannot act, either they act inefficiently, either they have thoughts such as “I won’t be able to do this, I am not able to do it” which leads to a sure failure.

When this thing happens, the sportsman’ efficiency lowers considerably and it can be noticed a rigidity in movements and low execution speed etc. If a high anxiety level blocks the accomplishment of high performances, a low one is same as unfavorable because of the lack of emotional commitment in competitions.

The sports psychologist meets these anxious feelings through investigation forms of precompetitional anxiety – most commonly used methos being direct observation of the sportsmen’s behaviour and through specific techniques removing the negative feeling. Although they are intensively used and studied nowadays, these techniques were elaborated with thousands of years ago, within filosofical and religious oriental systems (Yoga, Buddhism, shamanism etc.). Among the most used methods there are analitical Jacobson relaxation, autogenous training (Schultz), psihoton training, sofrologic type relaxation (Caycedo), combinations of these techniques: relaxation pedagogy (Gerda Alexander) etc.

Lower, I elaborated a short synthesis from the studies of many authors: I. Holdevici and I.P. Vasilescu, I. B. Iamandescu (2002) etc.[3,4]

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<th>Method</th>
<th>Content aspects of the technique</th>
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<td>Jacobson analitical relaxation</td>
<td>Implies a series of successive stages, starting with muscular relaxation and ending with mental relaxation: the technique takes place in supine position, going from the awareness of the sensation of muscular contraction from a muscular group to another and ending with the awareness of the residual muscular tensions produced by different negative moods.</td>
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| Autogenous training (Schultz) | Introducing through suggestion a general relaxation of the body. This includes 2 cycles:  
  - Inferior cycle which includes exercises in which the concentrative disconnection targets next directions: muscles, cardiovascular system, respiratory system, abdominal organs and head area;  
  - Superior cycle is practiced after at least 6 months – 2 years after practicing the inferior cycle and includes focusing exercises on the favorite colour or a colour required by the |
| **Psihoton training** | Psihoton training is the most effective method for balancing the athlete and for determining an optimal behaviour. As a relaxation technique, it is based on relaxation and it is in the pursuit of a muscular and mental decontraction in order to obtain rest efficiently and conserve the individual’s mental energy; one of the most effective methods for balancing the athlete and for determining an optimal behaviour.

Steps in psihoton training:

a) Initiation in preliminary phase contains: muscular relaxation test; position awareness, active motion – passive motion, relaxing respiratory control

b) Autogenic training: weight perception exercises; heat perception exercises; heart regulation; abdominal regulation; breath control; cephalic area control; autosuggestion formulas

c) Specific aspects of sports: localized muscular control, relaxation of phonation and vision devices; eliminating localized hypertension; elective differential relaxation – at will; fractional relaxation; activation with tonic return and mental stimulation through autosuggestive formulas; modeled training with getting in shape for the competition. |

| **Caycedo sophrologic type of dynamic relaxation** | Sophrologie is defined as a discipline that aims to study changes in consciousness. Caycedo proposed as a starting point in building his system the theoretical division of human consciousness in levels and moods. In author’s conception, the level is a quantitative change of consciousness in the direction of clarity or obnubilation, while the state is a qualitative change. Dynamic relaxation includes a graded and well structured system: breathing exercises; simple movements; muscular relaxation exercises; exercises for focusing the attention on body functions and for driving some features of thought. Irina Holdevici (1998, p. 24) considers that if the theoretical foundations of this system are questionable, in exchange, the relaxation technique proposed by the sophrologic school is called by the authors “dynamic relaxation” and it is interesting and it has multiple opportunities for practical application. |
### Combinations of these techniques:

- Relaxation pedagogy (Gerda Alexander)

This method is aimed to eliminate the unnecessary contractions that occur in certain activities. In the first phase, it proposes the Jacobson method – analytical relaxation, while in the second phase is used the autogenous training of Schultz, to correct the body image and to achieve the perception of internal body functionality. The third step is to consciously adjust the decontractions in specific activity, with the purpose of rational use of energy in movement and work. The principles of this method are: awareness and optimal routing of muscular tensions; dynamic study of movements in order to increase their efficiency and personality psychomotor re-education.

Apart from these relaxation systems, widely spread, Irina Holdevici describes more systems:

1. **Dynamic blood pressure (ATLAS):** which uses motion, breathing, diet, the imaginative exercises of awareness and reduction for the muscle tension, having as goal the growth and strengthening of the energy level.
2. **The sensory awareness training (GINDLER):** is based on a set which refers to focusing exercises on different parts of the body, acknowledging the senses which comes from them in order to obtain a better psychosomatic control and getting a state of calm and self-mastery.
3. **Functional relaxation (FUCKS):** includes slow breathing exercises which relax different parts of the body. The most used technique is the rhythmic breathing.
4. **The passive movements technique (MICHAUX):** the subject cooperates passively, completely relaxed while another person moves different parts of the subject’s body. Gradually, the alertness goes away and the relaxation is induced.
5. **The „relaxed” answers technique (BENSON) through:** exercises of imaginations, auditory or visual stimulations, calming pills, relaxed positions and through the attitude of passive waiting is induced a relaxation state both for body and for psychic.

### Conclusions

After I analyzed the relaxation methods from above I draw some conclusions:

- Those techniques proved to be useful in different areas like medicine, psychology, sport and that explains why every researcher is interested in them.
- You can see a big diversification between techniques. Every trainer tried to adapt traditional methods with practical needs, by adding or removing different elements.
c. the first methods are concerned about muscle relaxation and the ones that are used later are a combination of the relaxation with active movement and therapeutic suggestion.

All the relaxation methods involve a special training, a learning period, before becoming an asset of the athlete, a technique that helps the athlete to control his states of mind in the hardship of a competition.

REFERENCE