

# Psycho-Pedagogical Conditions of Development of Self-Efficacy in Young Athletes at the Initial Stage of Training

Liudmila Rogaleva  
Ural Federal University  
Ekaterinburg, Russia

Uliya Khaerzamanova  
Ural Federal University  
Ekaterinburg, Russia

Valerii Malkin  
Ural Federal University  
Ekaterinburg, Russia

Irina Mamaeva  
Ural Federal University  
Ekaterinburg, Russia

**Abstract**—In modern sports, athletes are required to have confidence in their success and confident behavior during competitive performance, which are considered as self-efficacy. According to modern studies, the self-efficacy of athletes begins to form at the age of 9 and has a decisive influence on the achievement of high sports results in the later stages of a sports career. The purpose of the study was to develop and test the psychological and pedagogical program for the development of self-efficacy in young athletes of 9-10 years at the stage of initial training. The experimental group included 15 young athletes; the average age was 10.3 years. In the course of the study, there was worked out a program of work of the coach, based on the principles of positive psychology, aimed at creating conditions conducive to increasing the sense of competence, autonomy and social support. The results of the study have showed that the development of self-efficacy occurs only when young athletes achieve their goals not at the expense of their natural abilities, but at the expense of the efforts they make to achieve the goals. Based on the results of the study, recommendations for coaches on the development of self-efficacy of young athletes were developed.

**Keywords**—*young athletes, psycho-pedagogical conditions, self-efficacy*

## I. INTRODUCTION

The theoretical foundations of self-efficacy were first laid by a Canadian scientist A. Bandura [1].

Self-efficacy is understood as a person's belief in the ability to successfully act in a particular situation, which is accompanied by the choice of more complex tasks, setting more complex goals and showing perseverance in achieving them. Self-efficacy is a fundamental characteristic of personality that can have a fundamental impact on human behavior in the future.

In this regard, an important area of research in psychology is the study of factors affecting the development

of self-efficacy and the development of recommendations for its formation.

Thus, A. Bandura identified the following factors affecting self-efficacy: past experience of achievements, modeling (observation of others), belief in the possibility of achieving goals, physiological and emotional state [2].

Bandura believed that behavior could be changed in the following ways:

A) Self-cognition. To change their behavior, people must constantly encourage themselves if they act in the desired way.

B) Self-punishment. Drawback: it is difficult to constantly punish yourself if you cannot achieve the desired behavior. Therefore, the punishment should be relatively mild, which guarantees its self-regulation.

C) Planning the environment [3].

M. Shahraki, M.R. Esmaeili and F.A. Ganjouei in their study proved that participation in sports and psychological endurance, as well as other external factors such as hardness (relationship providing the courage and motivation) increased self-efficacy. They recommended training different groups of the population in psychological skills, such as psychological endurance, and guiding future research to other factors affecting this design [4].

Theoretical approaches to the study of self-efficacy and its development are becoming quite popular in the psychology of sports.

The aim of our study is to analyze approaches to the study of self-efficacy in sports and to develop psychological and pedagogical programs for the formation of self-efficacy in young athletes at the stage of initial training.

## II. PROBLEM STATEMENT

The problem of self-efficacy in sports is studied from various aspects.

It is possible to allocate a number of works in which

---

**Corresponding Author:** Liudmila Rogaleva, Ural Federal University, Ekaterinburg, Russia.

importance of self-efficacy in sports is proved. In the study of the influence of self-efficacy on the competitiveness of karate kyokushin athletes, G. B. Gorskaya and E. R. Kadyrova revealed that athletes with the title of honored master of sports, master of sports of international class, master of sports had high self-efficacy, they had a high level of self-realization, self-esteem and willingness to work to improve their competitiveness [5].

E. Pogorelova in the study of the relationship of self-efficacy and coping strategies in athletes - climbers at the stage of early adolescence found that climbers with higher level of general self-efficacy were more dedicated to achieve and solve life's problems; they differ in the manifestation of good faith [6].

D. L. Feltz, E. S. Sandra, and P. J. Sullivan justified the importance of self-efficacy theories for athletes, coaches and teams. They, on the one hand, describe the manifestation of self-efficacy in sports, and, on the other, give recommendations to improve self-efficacy of athletes, coaches and team [7].

M. Kelmann and H. Eberspekher in their work indicated the importance of such components of self-efficacy of athletes as: prognosis training, open prognosis training, training of singularity, prognosis of training and training of singularity with time delay [8].

D. Jolly, C. McCready, B. Crenville-Cleave and A. Brady developed a seminar for young players of professional leagues on the development of self-efficacy called "My future today" (MFT), which included such techniques as identifying the strengths of the individual, a story about themselves in 30 seconds [9].

N. A. Bulynko offered a program to improve self-efficacy in sports, which included the following components: creation of a model of training and competitive activities; settings orally (oral beliefs); self-regulation skills; participation in competitions of different levels [10].

At the same time, almost all researchers focus on adult athletes and coaches, there is not enough research related to the formation of self-efficacy of young athletes. Meanwhile, according to authors such as A. Pesca, S. Serpa and A. Rosado, E. Shepeleva, evaluation of the effectiveness of their own activities begins to develop since the age of 9 [11, 12].

In this regard, at this age there is a need to create conditions that will ensure the development and promotion of self-efficacy in young athletes.

### III. METHODS

The experimental study was conducted on the basis of the sports club "Stimulus", in Sverdlovsk region, Russia. The study was attended by young athletes of 9-11 years old, which involved more than 18 people. The pilot work was carried out during the year. The study used pedagogical observation, testing of physical fitness of young athletes,

self-esteem of young athletes, motivation for classes, a test for reflection of sports qualities.

During the organization of training and competitive process the trainer developed the program, taking into account the principles of positive psychology [13-15]. The trainer's work program was aimed at increasing self-efficacy and confidence in achieving goals, but it was also aimed at meeting the need for autonomy, competence and social support.

In the course of the coach's work we used the score of training, independent work, evaluation of competitive activity of athletes.

The trainer used the following methods of work: assessment of training and competitive activity of athletes (feedback) in points; methods of self-tuning and self-regulation.

Evaluation of individual indicators of training and competitive activity in points allowed to evaluating the self-efficacy of the work performed by young athletes. Tasks were developed for independent work, which included an assessment of the dynamics of the development of a physical quality.

Also the coach used internal stimulation: the children were asked to come up with a small reward for the observance of the above activities, and for failure to comply with a small punishment, not serious to avoid the giving up of activities, but significant. These incentives were to be observed and monitored by the young athletes themselves. The final points scored in the first week showed the initial level of self-efficacy of young athletes, and the points obtained in the following weeks were an indicator of the development of self-efficacy of young athletes. Another innovation of the coach was the inclusion of children in the discussion of the nearest goals, ways and probability of achieving the goals.

### IV. RESULTS AND DISCUSSION

The coach's programme of work enabled young athletes to be included in the process of developing personal self-efficacy, on the one hand, and on the other helped to build their confidence in the possibility of achieving goals through their efforts.

Control tests of physical preparedness of young sportsmen showed significant increase in athletic performance, especially those of young athletes who have experienced higher increase in self-efficacy (attendance and active work during the training sessions, individual assignments, achievement of goals and participation in competitions).

It is revealed that the increase in self-efficacy also contributes to self-confidence, which is also manifested in the belief that the goals are achievable.

So if at the beginning of the work the majority of children in setting goals for them chose the answer "I'll try

to do this job, but I'm not sure that it will work", at the end of the experiment, 27.7% - chose the same answer ("I'll try"), 55.5% - "I can do it!", 16.8% - chose the answer "It's so easy!".

The program of self-efficacy contributed to a better understanding of the important personal qualities that they need to develop, in particular, they included such qualities as: I own the technique of running, doing it myself; I train a lot, follow all the instructions of the coach; I overcome the competitive distance as quickly as possible.

It is interesting to note the dynamics of the data that we received in the evaluation of young athletes of their readiness for the competition (by the method of "Attitude to the upcoming competition"). Thus, with increasing self-efficacy, the assessment of the level of preparedness of rivals decreases, it becomes average, which removes the fear of uncertainty in young athletes, as well as an increase in the desire to compete, increases the confidence that others more positively assess the abilities of the young athlete.

Based on the work we have developed practical recommendations for coaches. It is necessary to develop the self-efficacy of young athletes:

- include young athletes in the discussion of goals, ways and the possibility of achieving them;
- stimulate efforts leading to the achievement of sports results;
- use techniques to improve the self-efficacy of the young athlete;
- use a point evaluation of all of the athlete's work, to include items on self-assessment and carry out tasks for mutual assessment;
- create conditions for the experience of their own success in training and competitive activities;
- use verbal persuasion that involves emotional support, belief in their abilities, approval, and positive evaluation;
- facilitate learning by observing other people who are successful in such activities;
- maintain a positive psychological, emotional state in training and competitions;
- carry out organized mutual assistance and mutual support in the conditions of joint activities.

The results of psychological characteristics of young athletes before and after the experimental work were evaluated using psychodiagnostic methods.

The results of the study revealed the effectiveness of the work, which was expressed in the individual growth of physical qualities of young athletes and sports results, as well as in the formation of self-confidence.

The increase in self-esteem in young athletes was noted

both in physical indicators and personal qualities. This is due to the fact that young athletes had learned to highlight the characteristics that are most important in their chosen sport, to realize that their result is a consequence of their efforts, i.e. primarily from how they work in training, as well as from independent training. During the lessons young athletes began to form motivation to succeed, they began to accept difficulties and strive to overcome them, which had a positive impact on improving self-efficacy.

The study shows that the development and use of special psychological and pedagogical conditions in the work of the coach ensures the development of self-efficacy in young athletes.

Recommendations to improve self-efficacy in young athletes are as follows:

- to create conditions for experiencing their own success in training and competitive activities;
- to use verbal persuasion that involves emotional support, belief in their abilities, approval, and positive evaluation;
- to promote learning by observing other people who are successful in doing so;
- to maintain a positive psychological and emotional state during training and competitions;
- to actively use the methods of self-regulation of behavioral and emotional manifestations;
- to provide organized mutual assistance and mutual support in the context of joint activities.

## V. CONCLUSION

The study shows that the innovations created by the coach contribute to the self-efficacy of young athletes, which is expressed in the awareness that the achievement of goals is not only related to their abilities or physical data, but also depends on the efforts they make to achieve the goals. The developed recommendations can be used in the work of coaches to improve the self-efficacy of young 9-11 year-old athletes.

## REFERENCES

- [1] A. Bandura, *Self-efficacy: The exercise of control*. New York: W.H. Freeman & Co Ltd, 1997.
- [2] A. Bandura, "Self-efficacy: toward a unifying theory of behavioral change", *J. Psychological Review*, 1977, vol. 84 (2), pp. 191-215.
- [3] A. Bandura, "Health Promotion by Social Cognitive Means", *J. Health Education & Behavior*, vol. 31(2), pp. 143-64, May 2004.
- [4] M. Shahraki, M.R. Esmaeili, and F.A. Ganjouei "The effect of sport participation and hardiness on self-efficacy in female high school students". *J. Indian Journal of Fundamental and Applied Life Sciences*. Tehran: Department of Physical Education and Sport Sciences, Islamic Azad University, 2014, vol. 4 (S4), pp. 1842-1847.
- [5] G. B. Gorskaya and E.R. Kadyrova, "Personal resources of resilience at karate kyokushin athletes", *J. Scientific articles of the University of Lesgaft*, 2017, vol. 9(151), pp.267-272.

- [6] E.I. Pogorelova, "The relationship of self-efficacy and coping strategies in athletes climbers in early youth", *J. Sports psychologist*, 2016, vol. 4, pp. 70-73.
- [7] D. L. Feltz, E. S. Sandra, and P. J. Sullivan. *Self-efficacy in Sport*. Human Kinetics, 2008.
- [8] M. Kelmann, H. Eberspekher, "Modern problems of psychological training: methods of optimization of self-efficacy in sports: *Sport psychology*". The Reinbek.: Here, along the lattice. 1995, pp. 126 - 129.
- [9] D. Jolly, C. McCready, B. Crenville-Cleave, and A. Brady, "Reflections on positive psychology in professional football academies: positive psychology in sport and physical activity" in *Positive psychology in sport and physical activity*, London: Routledge, 2018, pp. 157-169.
- [10] N. Bulynko, "Development Programme self-efficacy of the individual athlete", IX Intern. scientific and practical. conf. psychologists of physical culture and sports, Moscow, 2013, pp. 335 - 339.
- [11] A.D. Pesca, S. Serpa, A. F. Rosado, and R. Cruz, "Development of a self-efficacy scale for athletes of collective sports", *Proceedings of the XIV ISSP World Congress of Sport Psychology*, 10-14 July, 2017, pp. 336-337.
- [12] E. A. Shepeleva, "Gender differences in self-efficacy and coping in Russian adolescents", Abstract to the 19th ISSBD-meeting. Australia, Melbourne. July 2-8, 2006, p. 57.
- [13] A. Brady and B.Grenville-Cleave, *Positive psychology in sport and physical activity*. London: Routledge, 2018.
- [14] E. Deci and R. Ryan, "Self-determination theory and the facilitation of intrinsic motivation, social development and well-being". *J. American Psychologist*, 2000, vol.55 (1), pp. 68–78.
- [15] V. Malkin and L. Rogaleva, "System of psychological work in sport", *J. International Journal of Psychology*, 2016, vol.51 (SI), p.1114.