

# Tactical and technical indicators of boxers with different fighting styles

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## Abstract

**Objective of the study** was to identify the characteristics of striking actions in accordance with individual styles of fighting with special training.

**Methods and structure of the study.** The article examines the dynamics of technical and tactical actions (characteristics of striking actions) among boxers who differ in the style of fighting. The indicated characteristics of special training (free work) were studied using the electronic punching bag "KIKTEST-100", using the "Kicktester" program. Voluntary work was assessed by the following indicators: 1) impact force; 2) sharpness of the blow; 3) impact energy; 4) number of blows; 5) total tonnage; 6) maximum impact force; 7) maximum sharpness of impacts; 8) maximum impact energy; in 3-minute free work, on a boxing bag.

**Results and conclusions.** The implementation of technical and tactical actions of boxers is to a certain extent connected with the stylistic characteristics of combat operations, the severity of which manifests itself in accordance with the individual psychological characteristics of the boxers. In particular, in the conditions of free work, it was revealed that higher dynamics of the studied striking actions are characteristic of boxers implementing the knockout style, in comparison with tempo fighters and, especially, with boxers implementing the play style of fighting. At the same time, differences in the implementation of fighting styles are largely associated with the individual psychological characteristics of boxers.

**Keywords:** *fighting style, knockouts, pacers, gamers, striking actions, special training.*

**Introduction.** The style characteristics of conducting a competitive fight, on the one hand, are associated with individual psychological characteristics [3, 9], on the other hand, with the effectiveness of the implementation of technical and tactical actions [2, 10]. The quality of technique and tactics, defensive and striking actions performed by highly qualified boxers during a combat match is largely determined by the development of physical abilities, the characteristics of mental, psychophysiological processes, and experience in sports activities [6, 7].

The practice of fights shows that an athlete who has a large arsenal of strikes brings more technical variety, tactical skill to the fight and increases the chances of a victorious outcome of a sports confrontation [8]. At the same time, the effectiveness of striking actions is

largely associated with individual stylistic characteristics and is determined by them.

**Objective of the study** was to identify the characteristics of striking actions in accordance with individual styles of fighting with special training.

**Methods and structure of the study.** Boxers-students of the Federal State Budgetary Educational Institution of Higher Education "SibSUPhE", Omsk, aged 18-25 years, in the amount of 25 people, took part in the scientific work. The boxers' training load corresponded to the curriculum and distribution of means of physical and technical-tactical training of sports improvement and higher sports excellence groups according to the A.O. Akopyan program for children's and youth sports schools and Olympic reserve sports schools in boxing (2005) [1]. The indicated character-



istics of special training (free work) were studied using the electronic punching bag “KIKTEST-100”, using the “Kicktester” program [5]. Voluntary work was assessed by the following indicators: 1) impact force; 2) sharpness of the blow; 3) impact energy; 4) number of blows; 5) total tonnage; 6) maximum impact force; 7) maximum sharpness of impacts; 8) maximum impact energy; in three-minute free exercise, on a boxing bag. Level of preparedness: I category - 8 athletes, CMS - 10, MS - 7. Correspondence to the characteristics of the fighting styles: tempo boxers - 8, gamers - 6, knockouts - 11.

Typological features of the manifestation of the basic properties of the nervous system (strength of the nervous system, mobility of excitation, mobility of inhibition, “external” and “internal” balances between excitation and inhibition) were studied using voluntary motor techniques by E.P. Ilyina (2001) [4]. Statistical processing of the experimental material was carried out using Statistics 6.0 and Microsoft Excel 2010 programs.

**Results of the study and discussion.** The implementation of technical and tactical actions of boxers is to a certain extent connected with the stylistic characteristics of combat operations, the severity of which manifests itself in accordance with the individual psychological characteristics of the boxers. In particular, knockout boxers often have low nervous system strength, external balance, and inertia in both the process of excitation and inhibition, which contributes to a forceful style of fighting.

The gaming style of competitive activity is more often implemented by boxers who have greater strength of the nervous system, poise in internal balance and higher mobility of the excitation process, i.e. They are more characterized by speed abilities, manifestations of speed and sensorimotor skills. Boxers who implement the tempo style are characterized by a medium-strong nervous system, balance in external and inter-

nal balances, and some inertia of nervous processes; such a typological complex and fighting style contribute to the manifestation of patience, and, consequently, endurance, which corresponds to the nature of their competitive art.

In accordance with this, it should be noted that style as a psychological phenomenon is a stable psychological system (stable, variable within certain limits), ensuring coordination of the individual characteristics of those involved with the conditions and requirements of competitive activity.

At the same time, the nature of technical and tactical actions differs significantly depending on the style of the fight. This is evident to a certain extent in relation to the effectiveness of striking actions and their characteristics, and is revealed in the results of this study (Table 1).

Thus, the power of blows is higher among boxers with pace ( $157.49 \pm 22.0$ ) and “knockouts” ( $145.56 \pm 5.3$ ) in comparison with boxers implementing the playful style of fighting ( $129.57 \pm 25.3$ )  $p \leq 0.05$ . The sharpness of blows is more pronounced in pace boxers ( $58.83 \pm 6.3$ ) than in “knockouts” ( $46.54 \pm 3.5$ ) and “players” ( $50.35 \pm 6.5$ ).

Such an indicator as the energy of blows is more pronounced in knockout boxers ( $24.08 \pm 1.6$ ), in comparison with “players” ( $20.16 \pm 3.6$ )  $p \leq 0.05$ . Tempo boxers deliver more punches ( $186.50 \pm 14.1$ ) than play-style boxers ( $165.18 \pm 22.3$ ).

The indicator of the sum of the force of blows is significantly higher among tempo boxers ( $30047.50 \pm 6304.6$ ), in comparison with boxers of the playing style ( $21176.73 \pm 4444.9$ ) and “knockouts” ( $24238.80 \pm 3942.1$ ),  $p \leq 0.05$ .

A similar ratio is observed in relation to maximum strength; it is also higher among pace boxers ( $375.33 \pm 49.0$ ) than among play boxers ( $318.73 \pm 53.1$ ) and “knockout” boxers ( $322.00 \pm 15,0$ ).

*Connections between special preparedness and fighting styles in free work on a boxing bag*

Special tests	Fighting styles			p≤0,05
	Players	Tempo	Knockouts	
Impact force	129,57	157,49	145,56	1-2,1-3
Sharpness of blows	50,35	58,83	46,54	1-2,2-3
Vigor of blows	20,16		24,08	1-3
Number of beats	165,18	186,50		1-2
Sum of impact force	21176,73	30047,50	24238,80	1-2,2-3
Maximum impact force	318,73	375,33	322,00	1-2,2-3
Maximum impact sharpness	196,09	211,50	193,60	1-2,2-3
Maximum impact energy	49,36	63,83	58,60	1-2,1-3



The same is typical with regard to maximum sharpness; it is higher among tempo boxers ( $211.50 \pm 11.7$ ) in relation to knockout boxers ( $193.60 \pm 10.2$ ) and “players” ( $196.09 \pm 14.6$ ).

The maximum energy indicator is significantly higher among tempo boxers ( $63.83 \pm 10.7$ ) than among play boxers ( $49.36 \pm 9.9$ ),  $p \leq 0.05$ .

In general, the characteristics of striking actions are higher among boxers who implement a tempo style of fighting (see table).

Certain differences in the characteristics of striking actions occur according to the qualifications of boxers. However, it should be noted here that the considered characteristics of striking actions in most indicators have higher indicators for MS and CMS, in comparison with boxers of the 1st category, which corresponds to this level of preparedness.

Taking into account that striking actions are among the main actions of boxers to achieve victory, the presented research results show the connection between the characteristics of striking actions and the characteristics of the fighting style and their manifestation, reflecting the individual psychological characteristics of boxers. At the same time, most of the indicators of striking actions when performing free work are more effective in boxers of the tempo style of fighting. While knockouts have higher proficiency in the indicators 1, 3, 5, 6, 7 than boxers who implement the game style of fighting. In general, boxers-players are inferior in the analyzed indicators to both tempo boxers and “knock-out” boxers.

**Conclusions.** The results of the study show that technical and tactical indicators and their effectiveness vary to a certain extent among boxers implementing different fighting styles; they are most pronounced among knockout boxers. An essential factor is the connection between fighting styles and the individual psychological characteristics of boxers, which to a certain extent affect the effectiveness in implementing the designated styles.

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