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THE INFLUENCE OF INDIVIDUAL PSYCHOPHYSIOLOGICAL CHARACTERISTICS ON THE SUCCESS OF PROFESSIONAL CURLERS

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Introduction. In modern elite sports, being a highly trained athlete is not enough, possessing certain traits and types of higher nervous activity is equally important. It is also known that sports cannot significantly influence innate properties of the nervous system, including typological features of higher nervous activity. Specifically, it has been established that the strength of the nervous system, particularly in terms of excitation processes, plays a crucial role in sports. This characteristic determines personal behavior in non-standard, acute situations [1, p. 17].

Curling is a sport played on ice where two teams alternately deliver sporting gear (curling stones) toward a target area ("house"). A team earns one point for each of its stones in or touching the house that is closer to the center than any of the opponent's stones. Each team consists of four players, and each player delivers two stones in each end, alternating with the opponent [4, p. 8].

In curling, one of the key factors influencing performance is the combination of players based on various psychophysiological parameters. This importance arises from the fact that the team comprises five members, but only four interact during the game. Therefore, to achieve the best results, players must complement each other in terms of the typological features of their nervous systems.

The research aimed to evaluate the characteristics of the nervous system and their impact on the performance of an elite-level women's curling team.

Research Results. Psychophysiological testing was conducted using the tapping test. The tests were performed during the pre-competition period under resting conditions. The subjects were in a stable psychological state, without any identified issues.

The choice of methodology was due to its widespread use in assessing the strength of nervous system processes and analyzing the performance capacity of the participants.

The tapping test results are presented in Figure. The strength of the nervous system was diagnosed based on the performance graph curve analysis according to generally accepted criteria [3, p. 58].

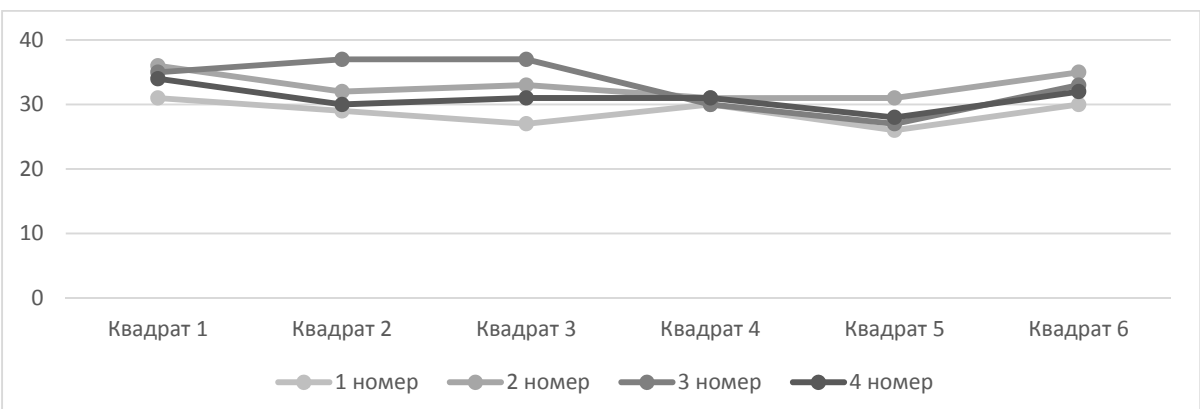

Figure – Tapping test results of the main roster of an elite-level women's curling team

The test results indicate that all main roster players maintain a consistent maximum pace throughout the activity, reflecting a medium-strength nervous system type.

Subsequently, testing was conducted to identify the temperament characteristics of the athletes. The results are shown in Table.

Table – Results of EPQ of H. Eysenck

	Extraversion	Neuroticism	Lies
Lead	12	23	3
Second	11	15	3
Vice skip	12	13	3
Skip	17	14	3

The EPQ data indicate that the most emotionally unstable player is the first number. Therefore, in a team that achieves high results at Russian Championships and National Tournaments, this athlete occupies this position. During the initial throws, it is challenging to significantly influence the game's outcome, mistakes are less critical, and psychological pressure and stressful situations are almost absent. Additionally, the tapping test showed that this player has a medium-strength nervous system type. As a result, minor setbacks cannot unsettle her. The "lead" position does not involve making game-winning moves or decisions that could lose the game, making it an ideal role for a player with this nervous system type.

In the presented team, the captain is the most impulsive and initiative-driven player. She is a choleric temperament type, close to sanguine, allowing her to quickly recover from failures. Her moderate level of neuroticism and average mobility of nervous processes enable her to handle stress effectively, which presents consistently [2, p. 102]. The game's victory directly depends on her throws, requiring excellent adaptation to high-pressure situations.

The roles of the second and third players are to correct the first player’s mistakes and simplify the situation for the captain. Thus, they need to be balanced enough to perform their tasks consistently without undermining the confidence of the last thrower. Both players have average scores across all parameters, making them excellent choices for these positions.

Conclusions. It can be concluded that in the presented elite-level women’s curling team, all athletes occupy the most suitable positions based on our analysis. This allows them to achieve high results at significant tournaments over extended periods. A well-structured team composition, with the proper combination of temperaments and nervous system types, enables the team to focus on physical and technical-tactical preparation while minimizing psychological training needs. So taking into consideration the study exploring the relationship between the type of nervous system organization and the effectiveness of team performance is important for athletes of the highest level.

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