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## **MENTAL FITNESS OF BASKETBALL PLAYERS AS A FACTOR OF THE EFFECTIVENESS OF FAST BREAK IN THE CONDITIONS OF COMPETITIVE ACTIVITY**

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**Key words:** basketball players, fast break, erroneous actions, mental fitness for actions.

**Annotation.** The analysis of the results of the expert evaluation of the basketball players' playing activity revealed a significant number of erroneous actions in all phases of the fast break, which contributed to the formation of a negative psychoemotional state in the players, manifested in uncertainty, fussiness, increased irritability, sometimes turning into aggressiveness, increased distraction, which reduced the effectiveness of competitive activities. In the course of the study, the subjects demonstrated mental fitness. In particular, this was expressed in the optimal level of mental tension before the matches. However, there was a lack of mental fitness for specific actions in the conditions of game activity, for example, with erroneous actions in the process of implementing the fast break, which was confirmed by the athletes' own opinions and externally observed expressive manifestations of emotions (posture, movements, gaze, facial expressions). After conducting a formative experiment with the use of psychological techniques, positive results were obtained, which was confirmed by the manifestations of mental fitness in basketball players to act in any game situations, which, accordingly, helped to avoid erroneous actions when performing the fast break.

**Introduction.** Technical and tactical fitness of basketball players is currently supported by modern methods with high effectiveness in the training process. Moreover, experts note the frequently observed decrease in performance of technical and tactical movements in competitive conditions, in particular – when performing an offense move with the fast break, which is undoubtedly due to psychological factors [1].

The fast break is one of the most popular types of offense in modern basketball, which is an effective way of attacking. According to S.V. Chernov and L.V. Kostikova [2], the effectiveness of performing the fast break is supported by

thoroughly planned and organized offense system, which imposes high requirements on the mental fitness of basketball players.

The purpose of this study was to search and scientifically justify means of improving the psychological aspect of the technical and tactical fitness of basketball players.

Study tasks: identifying erroneous actions of basketball players when performing the fast break, improving the mental fitness of basketball players to actions when performing the fast break by using psychological techniques.

**Methods and organization.** Theoretical analysis of scientific status of the issue, expert evaluation of in-game activity, testing, questionnaire, pedagogical observation, pedagogical experiment, mathematical processing of indicators. Following indicators were registered:  $X$  – mean value;  $\sigma$  – mean square derivation; Student's t-test.

Twelve basketball players, members of the starting lineup of the male basketball team in the SibSUPC participated in the study.

**Results and discussion.** The analysis of in-game activity of the team during the process of the 2019-2020 game season was carried out using video data. A number of erroneous actions of players when performing the fast break from the beginning of movements in the offence until their end (ball possession, development and completion) was recorded.

Two highly qualified coaches of the team and the researcher (the team's current player) performed the expert evaluation.

The maximum number of erroneous actions was made by basketball players in phases of development and conclusion ( $6,8 \pm 0,4$ ). Erroneous actions in the second phase of the offense, for example when the offence pass to a free player was performed slower, or players got carried away by dribbling and missed the moment to pass it, led to erroneous actions in the third phase of the given in-game situation. In the first phase of the offense, players made erroneous actions to a lesser extent ( $4,1 \pm 0,7$ ).

During the process of analyzing behavioral reactions of players after an erroneous action, non-verbal signs of the negative psychoemotional state were registered: uncertainty, fussiness, increased irritability, sometimes turning into aggressiveness, increased distraction, which, in our opinion, were the factor of decreasing the effectiveness of the fast break performance.

In order to register players' opinions on the effect of erroneous actions when performing the fast break on the psychoemotional state, we developed a questionnaire, where test subjects assessed the degree of the negative effect by 1 to 9 points.

Following in-game situations were assessed: delay of the offence pass; inaccurate pass (tackling, out, weak pass); untimely pass (long dribbling); absence of timely appearance of the player to get the first pass; dribbling along the baseline (the threat of knocking the ball out-of-bounds); absence of numerical superiority of offense players over defense players; offense players move along only one edge of the court, making it impossible for the offence to vary; unjustified defense play, when the partner is in the more favorable position for the offense; wrong choice of the way to make a finishing throw; the offense player ignores the opponents' location and makes a throw by the hand, which is close to a defense player; hastiness; non-prepared throw from the inconvenient position without having assisting partners; aggressiveness in movements of offence players in the final phase of offence actions.

The analysis of the questionnaire results showed that three in-game situations has a less negative impact on the psychoemotional state of players: offense players move along one edge of the court, making it impossible for the offence to vary ( $5,5 \pm 0,6$  points); dribbling along the baseline (the threat of knocking the ball out-of-bounds) ( $5,7 \pm 0,6$  points); absence of numerical superiority of offense players over defense players ( $6,1 \pm 0,8$  points). Along with that, according to opinions of players, other in-game situations can support to the formation of the negative psychoemotional state in a significant degree ( $6,6 \pm 0,6$  to  $8,3 \pm 0,6$  points), which decreases the effectiveness of performing the fast break.

The results obtained allowed assuming an insufficiency of the mental fitness of players and a necessity to conduct study on the maturity of some individually psychological features, causing the mental fitness of basketball players to act after making erroneous actions when performing the fast break.

Considering experts' opinions, the level of state anxiety was registered right before the game, which allows determining the degree of stress in athletes before the game. The pedagogical observation over external expression-based signs of athletes' emotions in situations with erroneous actions when performing the fast break was carried out during the process of in-game activity. It allowed revealing the character of the athlete's mental state, shown in poses, movements, gaze, facial expressions etc.

Indicators of maturity of emotional intellect and aggressiveness in relationship were also defined. Taking the specificity of in-game activity into account, where high requirements are imposed on features of attention of athletes, indicators of attention span, concentration and the speed of switching attention were registered in test subjects, the reaction on the object, which moves in a 360-degree circle, was also registered using a computer test, where the derivation from the specified point was recorded [3-5].

Table 1

Individual psychological features of basketball players before and after the pedagogical experiment (n=12),  $X \pm \sigma$

№	Examined indicators	Before the experiment	After the experiment	Po
1.	State anxiety	42,5±1,6	42,5±1,2	≥0,05
2.	Emotional intellect (points)	47,8±8,2	61,2±0,3	≤0,05
3.	Attention span (coefficient)	0,86±0,3	0,9±0,2	≥0,05
4.	Reaction to the moving object (derivation in degrees)	6,2±2,7	6,0±2,2	≥0,05
5.	Attention switching (s), (n=12) -high level -medium level -low level	83% 17% -	83% 17% -	
6.	Evaluation of aggressiveness in relationship (очки)	49,0±4,7	48,1±3,7	≥0,05

When analyzing the study results, the optimal indicator of state anxiety was revealed in test subjects (42,5±1,6 points), which allows affirming a formation of the optimal degree of stress before in-game activity in competition conditions. High indicators of attention span, concentration and switching, revealed in 83% of test subjects, as well as insignificant derivations from the specified point when reacting to the moving object show an ability of test subjects to react in certain in-game situations. Moreover, mean indicators (47,8±8,2 points) of the emotional intellect were revealed, including the following: emotional awareness, ability to control your own emotions, self-motivation, an ability to recognize emotions of others and the excessive expression of aggressiveness indicators (49,0±4,1 points), which can contribute to the formation of the negative psychoemotional state in case of erroneous technical and tactical actions in the process of in-game activity (Table 1).

The analysis of revealed indicators of individually psychological features allows assuming the following.

In whole, test subjects demonstrate mental fitness; it is expressed with an optimal level of the mental stress before matches. However, there is an insufficiency of the mental fitness to specific actions in game conditions, for example, when doing erroneous actions when performing the fast break. It is approved by opinions and worries, expressed by athletes and expressive manifestations of athletes' emotions (pose, movement, gaze, and facial expressions).

Results of the stating part of the pedagogical experiment allow affirming a necessity to develop a set of psychological techniques for improving the mental fitness of basketball players to specific actions in game conditions.

Taking into account the specificity of basketball and revealed individually psychological features, a following set of psychological techniques was developed and recommended for the coach to implement it into the process of training athletes: techniques for rapid stress relief through working with breathing; techniques for stress relief through working with mind; working with mental images, their creation and concentration on them using the internal attention; techniques for improving the voluntary attention; techniques for improving the non-verbal creativity (an ability to predict intentions of your partners and the opponent based on non-verbal signs).

**Conclusion.** After implementing the aforementioned techniques into the training process of the basketball team, positive results were obtained, which the increased indicators of the emotional intellect (Table 1) and signs of the mental fitness to actions in any game situations also confirmed. It accordingly contributed to the avoidance of erroneous actions when performing the fast break.

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