SLOBOZHANSKYI HERALD OF SCIENCE AND SPORT

UDK 796.323/796.01:159.9-053.6

ISSN (English ed. Online) 2311-6374
2019, Vol. 7 No. 2(70), pp. 20-25
DOI: 10.5281/zenodo.3066840

# Motivational-emotional and cognitive factors of sports preparedness of young basketball players

***Liudmyla Frolova***
***Andrii Tymofeev***
***Irina Khomenko***

*Bohdan Khmelnytsky National University of Cherkasy, Cherkasy, Ukraine*

***Purpose:*** *to establish the degree of influence of motivational-emotional and cognitive factors on the athletic preparedness of young basketball players, taking into account the exercise of the dominant and subdominant hands.*

***Material & Methods:*** *young basketball players of 12–13 years old were investigated. They carried out testing of physical and technical readiness, determined motivation, personal and situational anxiety, stress resistance, memory, attention, and also the effectiveness of competitive activity.*

***Results:*** *data of physical and technical readiness, competitive activity, cognitive abilities and motivational-emotional state of young basketball players of 12–13 years of preliminary basic training were analyzed and the factors correlated. A significant amount of reliable links of sports readiness with the level of spatial-visual memory and anxiety is shown. Significantly less links of sports preparedness with the level of motivation and resistance to stress.*

***Conclusions:*** *it has been established that improving the athletic fitness of young basketball players aged 12–13 years can be influenced by increased motivation to achieve success, an increase in the level of spatial-visual memory, and a decrease in the level of situational and personal anxiety. At the same time, to improve technical mastery and increase the efficiency of competitive activity, the stress level of young athletes is of little importance.*

**Keywords:** *young basketball players, sports preparedness, motivation, stress resistance, memory, attention.*

## Introduction

The effectiveness of managing the training of athletes is determined by the leading factors that significantly affect athletic fitness [19; 20]. Of particular importance to the factors in the process of technical training of young athletes, in particular, in basketball [4; 10], where the formation of skill occurs in rapidly changing game situations. Among a number of factors, the most significant are psycho-physiological [10; 20], the degree of influence of which is determined by the age and individual characteristics of young basketball players [22].

Considering recent studies, the study of the psycho-physiological functions of athletes is widely represented by various aspects, one of which is cognitive abilities [8; 14; 19; 23], especially attention and memory, which, in the process of improving motor actions, make it possible to single out the details of technology [7]. No less important is the study of the motivation of athletes [2; 18; 16; 25; 27], which provides technical activity of a certain direction [12; 26]. At the same time, the psychological stability of players is no less important, since high emotional tension in sports games can affect the implementation of technical skills [3; 21; 24], especially in competitive conditions [6; 15; 20].

Analyzing the work in this direction, it can be stated that most of the work concerns the contingent of qualified athletes [14; 21; 25; 27], including basketball players [2; 8; 16; 18; 28]. However, there are works with the study of the links of sports preparedness and psycho-physiological functions in groups of young basketball players. In the consideration of our problem, the studies of V. M. Koryagin and A. S. Blavt [10] with the definition of the factor matrix of significant coefficients in different age groups, where the factor of technical readiness and sensorimotor gains significance for the age period of 12–13 years, are interesting. However, more detailed data on the degree of influence of other psycho-physiological abilities on the level of technical skill has been revealed.

Also interesting are the works of Niu Yunfei [20], in which the factors of the game activity of young basketball players are considered, where technical readiness and time perception are the most famous. However, the influence of other psycho-physiological factors on athletic fitness is demonstrated.

Consideration of psychological factors affecting the increase in the level of competitive activity of young basketball players was made by A. Rovny and V. Pasko [26]. The authors present correlations of the accuracy of the performance of techniques with cognitive, sensorimotor abilities and properties of the nervous system. The data presented in the work of A. Rovny and V. Pasko could be supplemented with the correlation of technical mastery with the motivational-emotional component.

Most studies of the technical skill of basketball players are related to the determination of the level and interrelationships of athletes' preparedness when performing techniques with the dominant hand. As I. V. Aksarin, I. Y. Aksarina, B. P. Yakovlev [1] notes, in order to increase the efficiency of the training process, it is important to have information about additional reserves, which consist in the correct use of the subdominant hand. The authors prove the importance of motor asymmetry indicators for the technical improvement of young basketball players, but do not provide data on the influence of factors on the formation of skills in both the dominant and subdominant

hands.

Given the above it can be stated that the literature found insufficient data to characterize the factors of efficiency of sports readiness of young basketball players.

**Purpose of the study:** to establish the degree of influence of motivational-emotional and cognitive factors on the athletic preparedness of young basketball players, taking into account the exercise of the dominant and subdominant hands.

## Material and Methods of the research

Participants in the study were 35 basketball players 12–13 years old. At the time of the study, young basketball players had a training experience of 4–5 years. All athletes at the time of the study were healthy. Young basketball players are informed about the purpose of the study, after which they gave an informational consent to participate in them and confirmed their consent to use the generated data.

For the study of physical and technical fitness, tests were used (shuttle run 3x10 m, passes in pairs of two balls in the amount of accurate passess by the right and left hands, a complex exercise with a stroke of chips and rolls on the time of execution and accuracy of hits in the ring with the right and left hands, the ball on the distance 15 m with the turn of the right and left hands. To study the motivation-emotional state, the blank methods were used: A. A. Rean's questionnaire (the motivation for success and avoidance of failures was studied) [13]; Ch. D. Spielberger's questionnaire for determining the level of personal and situational anxiety [11]; questionnaire "Interpretation of stress symptoms" to determine stress resistance [5]. For the study of cognitive functions, the "Number Arrangement" technique (evaluation of voluntary attention) [11] and a test for determining spatial visual memory [11] were used. The effectiveness of competitive activity was determined by the coefficient taking into account competitive activity.

Participants' studies were conducted on a day-to-day basis from training and training. Testing with a shuttle run of 3x10 m was carried out on a specially prepared site with marking and equipment (cubes). One attempt was made without regard to the result and one test attempt. Before testing technical fitness, young basketball players reported information about the dominant hand, and they were introduced to the task for each exercise just before they were completed. Each participant made two attempts to pass a practical test without taking into account the result, performing left and right hand exercises, the result of which was not counted, and then two attempts were made based on the test result. The research on blank methods was carried out in the audience, limiting the influence of external factors on the condition of athletes. The participants were located at a certain distance from each other to prevent the influence of other athletes on the choice of answer options. To determine the effectiveness of competitive activities, pedagogical observations were conducted in 20 games with the participation of the contingent under study.

The results of the study of each participant were determined as follows:
– in determining the motivation for each correct answer, one point was awarded and the total number of points was calculated, while indicators from 1 to 7 points are diagnosed as a motivation for avoiding failures, 8–9 points – a tendency for motivation to avoid failures, 10–11 points – the type is not defined motivation; 12–13 points – a tendency to motivation to achieve success, and from 14 to 20 points – diagnosed as a motivation to achieve success;

– in defining anxiety, the points were summed by the key of answers: situational anxiety – from the sum of points by (3; 4; 6; 7; 9; 12; 13; 14; 17; 18) subtract the sum of points by (1; 2; 5; 8; 10; 11; 15; 16; 19; 20), then add 50 to the result, i.e. CA=(3; 4; 6; 7; 9; 12; 13; 14; 17; 18) – (1; 2; 5; 8; 10; 11; 15; 16; 19; 20); personal anxiety – from the sum of points by (2; 3; 4; 5; 8; 11; 12; 14; 15; 11; 17; 18; 20) subtract the amount of points by (1; 6; 7; 10; 13; 16; 19), then to the result obtained add 35, that is, PA = (2; 3; 4; 5; 8; 11; 12; 14; 15; 11; 17; 18; 20) – (1; 6; 7; 10; 13; 16; 19)·35. It was taken into account that the lower the sum of points, the lower the level of anxiety, and vice versa;

– in determining stress resistance, the total number of points for answering questions was calculated. In this case, the lower the score, the higher the level of stress resistance and vice versa;

– for the evaluation of voluntary attention, the total number of placed numbers (P), the number of missing numbers (M) and the task execution time (T) were calculated. The indicator of attention distribution is calculated: AD = (P–M):T. At the same time, the higher the distribution index of attention, the better the person's ability to control several objects or phenomena simultaneously;

– to determine the spatial visual memory, the sum of the points for the accuracy of the figures was calculated. The higher the score, the higher the level of spatial visual memory.

When analyzing the performance data of competitive activities of young basketball players, the coefficient was determined by the integral index EFF, which is used in the NBA [9]:

$$EFF=4,8x(X_1x0,78+X_2x0,52+X_3x0,15+X_4x0,68+X_5x0,73+X_6x 0,32+X_7x0,84+X_8x0,63+X_9x0,26+X_{10}x0,94+X_{11}x 0,98+X_{12}x0,89+X_{13}x0,47+X_{14}x0,42+X_{15}x0,36+X_{16}x0,21+ X_{17}x0,05+X_{18}x0,10+X_{19}x0,57),$$

*where EFF – efficiency index; $X_1$ total% of throws in the game; $X_2$ – 2-point throws, hit; $X_3$ – 2-point throws, attempts; $X_4$ – 2-point throws %; $X_5$ – 3-point throws, hit $X_6$ – 3-point throws, attempts; $X_7$ – 3-point throws %; $X_8$ – free throws, hit; $X_9$ – free throws, attempts; $X_{10}$ – free throws%; $X_{11}$ – assists; $X_{12}$ – catching the ball; $X_{13}$ – selection in defense; $X_{14}$ - selection in the attack; $X_{15}$ – selection, amount; $X_{16}$ – loss of the ball; $X_{17}$ – block shot; $X_{18}$ – fouls; $X_{19}$ – total points.*

All experimental data obtained were processed using Excel. The arithmetic mean and the standard deviation were determined. The significance level is set at 0,05. The correlation, or the relationship between the two quantities, was established by logical reasoning, and the correlation analysis was used to determine the magnitude of the relationship and its nature.

## Results of the research

Correlation analysis of the motivational-emotional state and cognitive functions of basketball players aged 12–13 years showed that the level of development of the spatial-visual



Frolova, L., Tymofeev, A. & Khomenko, I. (2019), "Motivational-emotional and cognitive factors of sports preparedness of young basketball players", *Slobozhanskyi Herald of Science and Sport*, Vol. 7 No. 2(70), pp. 20-25, doi: 10.5281/zenodo.3066840

memory of young athletes is significantly influenced by both motivation (r=0,40) and stress tolerance (r=0,56) and situational and personal anxiety (r=–0,54; r=–0,37) (Table 1).

Revealed a moderate degree of dependence of spatial-visual memory with personal anxiety and motivation. Relationships of a significant level of spatial-visual memory are recorded with indicators of stress tolerance and situational anxiety. At the same time, the tendencies towards enhancing the motivation for success and reducing the level of stress tolerance significantly influence the growth of indicators of spatial-visual memory. However, the level of spatial-visual memory may decrease with increasing levels of situational and personal anxiety.

Also obtained correlations of the average degree of dependence of motivation and voluntary attention (r=0,45). With increased motivation to achieve success, the level of voluntary attention can significantly increase. Interdependencies were also found between indicators of stress tolerance and voluntary attention, but at the level of large connections (r=0,53). Increased stress tolerance can affect a significant increase in the voluntary attention of young athletes.

The analysis of sports readiness and cognitive functions of young basketball players aged 12–13 years found significant correlations of different strengths (Table 2).

Indicators of physical prepadness, in this case, manifestations of dexterity, correlate only with indicators of spatial-visual memory at the level of moderate connections (r=–0,34). That is, the higher the levels of development of spatial-visual memory, the faster the young basketball players are oriented toward a distance.

Indicators of technical readiness can significantly depend on both spatial-visual memory and voluntary attention. The spatial-visual memory at a significant level can affect the time for performing a complex exercise with a dominant hand (r=–0,65). In this case, the higher the level of memory development, the faster the young athletes will perform the exercise.

Spatial-visual memory at a moderate level can affect the accuracy of passess with a dominant hand (r=0,37), the time for performing an complex exercise (r=–0,31), the accuracy of throws (r=0,34) and the dribbling (r=–0,34) subdominant hand.

Indicators of voluntary attention correlate with the indicators of passess by the dominant and subdominant hands (r=0,51; r=0,43) and with the indicators of the time for performing a complex exercise with the subdominant hand (r=–0,35).

It was also revealed that the effectiveness of competitive activity can significantly depend on the development of spatial-visual memory at the level of moderate connections (r=0,46). The higher the possibilities of spatial memory, the more efficient the competitive activities of young basketball players can be.

The correlation of sports preparedness and the motivational-emotional state of young basketball players aged 12–13 pointed to the presence of a significant amount of interdependence (Table 3).

Considering the interdependence of physical fitness (manifestations of dexterity) with the motivational-emotional state, one can point out that only the level of stress resistance can significantly affect the rapid and accurate orientation of young athletes as they pass the distance (r=0,55). Moreover, the higher the stress resistance of basketball players, the better the shuttle run.

Taking into account other data, more connections are found between technical preparedness and anxiety. At the same time, there are two times fewer connections of technical pre-

**Table 1**

**Correlation of the motivational-emotional state and cognitive functions of young basketball players 12–13 years old (r)**

| Factors | Motivation | Stress resistance | Situational anxiety | Personal anxiety |
|---|---|---|---|---|
| Spatial-visual memory | 0,40 | 0,56 | –0,54 | –0,37 |
| Random attention | 0,45 | 0,53 | | |

***Remark.*** *Confidence level 95%.*

**Table 2**

**Correlation of sports preparedness and cognitive functions of young basketball players 12–13 years old (r)**

| Factors | Spatial-visual memory | Voluntary attention |
|---|---|---|
| Shuttle run | –0,34 | |
| Passes dominant hand | 0,37 | 0,51 |
| Passes subdominant hand | | 0,43 |
| Comprehensive exercise dominant hand | –0,65 | |
| Throws into the hoop with a dominant hand | | |
| Comprehensive exercise with subdominant hand | –0,31 | –0,35 |
| Throws into the hoop with a subdominant hand | 0,34 | |
| Dribbling with the dominant hand | | |
| Dribbling with a subdominant hand | –0,34 | |
| Effectiveness of competitive activity | 0,46 | |

***Remark.*** *Confidence level 95%.*

**Table 3**

**Correlation of sports preparedness and motivational-emotional state of young basketball players 12–13 years old (r)**

| Factors | Motivation | Stress resistance | Situational anxiety | Personal anxiety |
|---|---|---|---|---|
| Shuttle run | | 0,55 | | |
| Passes dominant hand | | –0,35 | –0,40 | –0,47 |
| Passes subdominant hand | | | –0,37 | –0,45 |
| Comprehensive exercise dominant hand | | | 0,61 | 0,52 |
| Throws into the hoop with a dominant hand | 0,32 | –0,40 | | –0,40 |
| Comprehensive exercise with subdominant hand | | | | |
| Throws into the hoop with a subdominant hand | | | –0,33 | –0,33 |
| Dribbling with the dominant hand | –0,36 | | 0,58 | 0,32 |
| Dribbling with a subdominant hand | –0,50 | –0,31 | 0,50 | 0,40 |
| Effectiveness of competitive activity | 0,44 | | 0,48 | 0,47 |

***Remark.*** *Confidence level 95%.*

paredness with motivation and stress tolerance. Strengthening the motivation to achieve the success of young basketball players will significantly affect the accuracy of throws with the dominant hand (r=0,32), as well as the indicators of the dribbling dominant and subdominant hands (r=–0,36; r=–0,50).

A high level of stress tolerance will significantly affect the accuracy of throws and passes with the dominant hand (r=–0,35; –0,40), but will contribute to a decrease in dribbling with the subdominant hand (r=–0,31).

A reduction in the level of situational and personal anxiety can be a factor in the high accuracy of the passes of both dominant (r=–0,40; r=–0,47) and subdominant (r=–0,37; r=–0,45) hands. Also, a low level of situational and personal anxiety significantly contribute to the high accuracy of movements when dribbling withthe dominant (r=0,58; r=0,32) and subdominant (r=0,50; r=0,40) hands.

The performance of a complex exercise situational and personal anxiety can significantly affect the implementation of movements with the dominant hand (r=0,61; r=0,52). At the same time, a low level of anxiety is important for making movements clear and quick.

A low level of situational and personal anxiety can affect the accuracy of throws into the ring with a subdominant hand (r=–0,33), and the accuracy of throws into the hoop with a dominant hand can only be a low level of personality anxiety. (r=–0,40).

In the course of the study it was revealed that the effectiveness of the competitive activity of young basketball players 12–13 years can be influenced by motivational-emotional factors at the level of moderate interdependence. At the same time, the tendency to increase the motivation for success will positively affect the competitive activity of young athletes (r=0,44). But the increase in the level of situational and personality anxiety can be a significant factor in the effectiveness of the competitive activities of basketball players (r=0,48; r=0,47).

## Conclusions / Discussion

The study found that with increasing levels of spatial memory and voluntary attention, which play a significant role in shaping the sportsmanship of young basketball players [22], the increased motivation to achieve success [3] can significantly affect. At the same time, a low level of resistance to stress will not affect the weakening of the cognitive functions of young athletes. Although the presence of a high degree of situational and personal anxiety will adversely affect the manifestation of spatial visual memory. Moreover, the competitive activity at this age increases the level of anxiety, which significantly affects the competitive result [24].

Taking into account previous studies, where the indicators of the level of development of agility, in the practice of shuttle run 3x10 m, significantly affect technical preparedness [17], we chose this test to determine the interdependence with psychophysiological factors. Our studies have shown that improving the orientation in space when changing the body position can occur in the conditions of the growth of the level of spatial visual memory when increasing the stress resistance of young basketball players.

Technical readiness, as an important component of sportsmanship, requiring sustained manifestation in competitive activity [26], essentially depends on many factors. The obtained exercise data with a subdominant hand showed that when forming technical skills, as opposed to perfection, it is important to take into account the level of spatial visual memory and voluntary attention, despite the established interdependence of factors. At the same time, the influence of cognitive functions is enhanced when performing a complex exercise with a dominant hand. That is, in the process of improving the combined elements of technology, a significant role is played by the growth of the level of spatial visual memory. It should be noted that the influence of the arbitrary attention on the technical preparation of young basketball players 12–13 years was significantly less than the effect of spatial visual memory. It can be assumed that in this study, other properties of attention, such as stability and concentration, which are associated with the precision of the throwing of young basketball players, become more important [26]. Perhaps in this age period there will be a role and concentration of attention that is already characteristic for skilled basketball players [14].

Research has also shown that in the process of improving the techniques of the game, the motivational-emotional state of young basketball players plays a greater role than in the formation process. This is indicated by a greater number of interconnections between the motivational-emotional state and the performance indicators of the transmissions and the



Frolova, L., Tymofeev, A. & Khomenko, I. (2019), "Motivational-emotional and cognitive factors of sports preparedness of young basketball players", *Slobozhanskyi Herald of Science and Sport*, Vol. 7 No. 2(70), pp. 20-25, doi: 10.5281/zenodo.3066840

complex exercise with falling into the ring with a dominant hand, as compared to the subdominant. Of all motivational-emotional factors, the most influence on technical preparedness is carried out by situational and personal anxiety, which is an integral part of the competitive activity of young athletes, taking into account the changing conditions of the game [24]. Our research shows that a low level of anxiety along with an increase in the level of stress tolerance and an increase in the motivation to achieve success can contribute to an increase in the skill level of young basketball players aged 12–13 years in the process of further improvement. It is noticeable that it is the motivation to achieve success with a high level of stress tolerance that can contribute to the formation of high accuracy of the throws.

The conclusions of our study can also be added that the effectiveness of the competitive activity of young basketball players 12–13 years may depend on the level of development of spatial visual memory in strengthening the motivation to achieve success and reduce the level of anxiety.

**Prospects for further research** in this direction are to use information about the influence of factors on athletic preparedness in developing programs to improve technical and tactical preparedness of young basketball players during the preliminary basic training phase and the implementation of experiments on their implementation..

**Conflict of interests.** The authors declare that no conflict of interest.
**Financing sources.** This article didn't get the financial support from the state, public or commercial organization.

## References

1. Aksarin, I.V., Aksarin, I.Yu. & Yakovlev, B.P. (2018), "Lateralization of functional asymmetry of young basketball players at the initial training stage", *Sovremennyie problemyi nauki i obrazovaniya*, No. 4, available at: http://www.science-education.ru/ru/article/view?id=27854 (accessed by: 02.02.2019). (in Russ.)
2. Babushkin, G.D (2015), "The athlete's mental activity in the structure of psychological readiness", *International journal of applied and fundamental research. Psychological sciences*, No. 12, pp. 1522-1525.
3. Babushkin, G.D, Yakovlev, B.P. & Babushkin, E.G. (2014), "The Coorelation between Motivation and Emotions in Extreme Activities", *Psihopedagogika v pravoohranitelnyih organah*, No. 2 (57), pp. 18-20. (in Russ.)
4. Bezmilov, M. (2017), "System of preparation of sports reserve and selection of basketball players in Lithuania", *Teoriya i metodyka fizychnogo vykhovannya i sportu,* No. 2, pp. 7-13. (in Ukr.)
5. Vodopyanova, N.E. (2009), Psikhodiagnostika stressa [Psychological diagnostics of Stress], St. Petersburg. (in Russ.)
6. Voznyuk, T. & Seniv, M. (2017), "Readiness indicators and their cooperation with competitive activity success of young basketball players at the stage of preliminary basic training", *Aktualni problemy fizychnoho vykhovannia ta metodyky sportyvnoho trenuvannia,* No. 4 pp. 10-16, available at: http://93.183.203.244:80/xmlui/handle/123456789/2326. (in Ukr.)
7. Girinskaya, A.Yu., Kukhtova, N.V., Melnik, E.V. & Sivitsky, V.G. (2018), [Cognitive sphere of an athlete. Theory and Practice], Vitebsk. (in Russ.)
8. Groshev, A.M. & Butorin, V.V. (2017), "The Influence of an Athlete's Cognitive Style on the Effectiveness of Techno-Tactical Activities in Basketball", *Uchenyie zapiski universiteta P.F. Lesgafta,* No.12 (154), pp. 324-326. (in Russ.)
9. Kozina, Zh.L. & Sobko, I.M. (2015), "Interactive technologies as a means of athletes' tactical training in student basketball", *Zdorove, sport, reabilitatsiya,* No. 1, pp. 22-33. (in Ukr.)
10. Koryagin, V.M. & Blavt, O.Z. (2010), "Improving the structure of technical and physical rediness of young basketball players", *Teoriia ta metodyka fizychnoho vykhovannia,* No. 2, pp. 3-6. (in Russ.)
11. Mironova, E. E. (2005), *Sbornik psikhologicheskikh testov* [Collection of psychological tests], Part I, Minsk. (in Russian)
12. Ogorodova, T.V. (2013), *Psikhologiya sporta* [Sport Psychology], Yaroslavl. (in Russ.)
13. Rean, A. A. (2006), *Psikhologiya i psikhodiagnostika lichnosti. Teoriya, metody issledovaniya, praktikum* [Psychology and psychodiagnostics of personality. Theory, research methods, practical work], St. Petersburg. (in Russ.)
14. Repko, E.A., Kozina, J.L. & Karyuchenko, D.N. (2018), "Features of the psycho-physiological functions of fencers as compared with representatives of cyclic and team sports", *Zdorove, sport i reabilitatsiya*, No. 02, pp. 96-105, doi: 10.5281/zenodo.1342481. (in Russ.)
15. Rechkalova, O.L. (2014), *Osobennosti psikhologicheskoy podgotovki v razlichnykh vidakh sporta* [Features of psychological training in various sports], *Izd-vo Kurganskogo gos. un-ta* , Kurgan. (in Russian)
16. Taran, I.I., Belyaev, A.G., Popovskaya, M.N. & Belyaev, E.D. (2017) "Sport motivation determinacy of the nervous system peculiarities of student basketball teams", *Izvestiya TulGU. Fizicheskaya kultura. Sport,* No. 3, available at: https://cyberleninka.ru/article/n/determinirovannost-sportivnoy-motivatsii-svoystvami-nervnoy-sistemy-u-basketbolistov-studencheskih-komand (appeal date: 10.02.2019). (in Russ.)
17. Timofeev, A. (2018), "The influence degree of the physical qualities development level on the technical readiness of basketball players aged 12–13", *Sportyvnyi visnyk Prydniprovia,* No. 3, pp. 140-144. (in Ukr.)
18. Tkachev, S.I. (2017), "Motivational sphere study of highly skilled athletes", *Aktualni pytannia teorii i praktyky psykholoho-pedahohichnoi pidhotovky fakhivtsiv v umovakh suchasnoho osvitnoho prostoru, Materialy III Naukovo-praktychnoi konferentsii, Kharkiv,* April 21, pp. 171-175. (in Ukr.)
19. Frolova, L.S., Glazirin, I.D., Petrenko, Yu.A., Suprunovich, V.A., Menshikh, E.E., Kharchenko, Ya.A. & Pivnenko, A.A. (2013), "Influence of the psychophysical state of handball players of different qualifications on their readiness", *Fizicheskoe vospitanie studentov,* No. 3, pp. 72-74, doi: 10.6084/m9.figshare.663630. (in Russ.)
20. Nu Yunfei (2013), "Comparative analysis of various factors influence on the readiness of 14-15-year-old basketball players", *Slobozans`kij naukovo-sportivnij visnik,* No. 2 (35), pp. 76-79. (in Russ.)
21. Bali, A. (2015), "Psychological Factors Affecting Sports Performance", *International Journal of Physical Education, Sports and Health*, No. 1(6), pp. 92-95.
22. Buceta, J.M., Mondoni, M., Avakumovicr, A. & Killik L. (2000), *Basketball for young players*, Mьnchen.
23. Frolova, L.S., Timofeev, A.A., Petrenko, Y.A., Atamas, O.A., Grechukha, S.V., Gunko, P.N. & Suprunovich, V.A. (2017), "Retrospective analysis of junior female handball players' priorities". *Pedagogics, psychology, medical-biological problems of physical training and sports*, No. 21(5), pp. 214-220, doi:10.15561/18189172.2017.0503/
24. Hoover, S.J., Winner, R.K., Mccutchan, H., Beaudoin, C.C., Judge, L.W., Jones, L.M., Leitzelar, B. & Hoover, D.L. (2017), "Mood and Performance Anxiety in High School Basketball Players: A Pilot Study", *International Journal of Exercise Science*, No. 10(4), pp. 604-618.
25. Korobeynikov, G.V., Korobeynikova, L.G., Romanyuk, L.V., Dakal, N.A. & Danko, G.V. (2017), "Relationship of psychophysiological characteristics with different levels of motivation in judo athletes of high qualification", *Pedagogics, psychology, medical-biological problems of*

*physical training and sports*, No. 21(6), pp. 272-278, doi: 10.15561/18189172.2017.060/
26. Rovniy, A. & Pasko, V. (2017), "The role of psychological qualities in the process of the formation of sports skill of young basketball players", *Fizychne vykhovannia, sport i kultura zdorovia u suchasnomu suspilstvi*, No. 4(40), pp. 118-121, doi: 10.29038/2220-7481-2017-04-117-121.
27. Sharma, R.K. & Nigam, A.K. (2011), "Psychological characteristics of male university athletes", *Journal of Physical Education and Sport*, No. 11(1), pp. 5-17.
28. Zakharova, A., Mekhdieva, K. & Kondratovitch, S. (2017), "Physical and Psychophysiological Profiles of Sub-elite Basketball Players – Novel Approach to Complex Testing", *In Proceedings of the 5th International Congress on Sport Sciences Research and Technology Support*, pp. 132-139, doi: 10.5220/0006585401320139.

Received: 25.02.2019.
Published: 30.04.2019.

## Information about the Authors

**Liudmyla Frolova:** *Assistant professor, Department of sports games*, *PhD; The Bohdan Khmelnytsky National University of Cherkasy: 81 Shevchenko Boulevard, Cherkasy, Ukraine, 18031.*
**ORCID.ORG/0000-0003-0763-7509**
**E-mail: l-f2014@vu.cdu.edu.ua**

**Andrii Tymofeev:** *Lecturer, Department of sports games*, *The Bohdan Khmelnytsky National University of Cherkasy, Ukraine, 81 Shevchenko Boulevard, Cherkasy, Ukraine 18031.*
**ORCID.ORG/0000-0002-9851-0257**
**E-mail: 13tim@i.ua**

**Irina Khomenko:** *Lecturer, Department of theory and methods of physical education*, *The Bohdan Khmelnytsky National University of Cherkasy, Ukraine, 81 Shevchenko Boulevard, Cherkasy, Ukraine 18031.*
**ORCID.ORG/0000-0002-1330-3604**
**E-mail: tmfv2016@ukr.net**



Frolova, L., Tymofeev, A. & Khomenko, I. (2019), "Motivational-emotional and cognitive factors of sports preparedness of young basketball players", *Slobozhanskyi Herald of Science and Sport*, Vol. 7 No. 2(70), pp. 20-25, doi: 10.5281/zenodo.3066840