

Features of self-esteem and level of ambition in athletes of different qualifications

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Abstract:

Problem Statement. The problem of finding an athlete's psychological resource remains relevant. The versatile use of the cognitive resources of the athlete's psyche effectively enhances the ability of athletes to realize their athletic potential at competitions. Many authors consider self-esteem as a factor in increasing an athlete's cognitive resource. The research purpose was to identify the peculiarities of self-esteem in athletes of different qualifications as one of the factors of improving the efficiency of sports activities. Materials and Methods: Participants: The self-esteem of 149 young athletes was studied among them 31 athletes were engaged in rhythmic gymnastics, artistic gymnastics, acrobatics; 43 athletes played sports games (football, volleyball, rugby, hockey); 34 athletes were freestyle wrestling, boxing, judo. To compare the results, the athletes were divided into two groups: Group 1 – 88 elite athletes; Group 2 – 61 non-elite athletes. Results: Elite athletes have a high level of self-esteem and high levels of ambitions, demonstrate significantly higher self-esteem than non-elite athletes on the scales of "Mind and ability", "Authority", "Confidence" ($p < 0.001$). High self-esteem can be considered optimal for athletes, which reflects the positive result of self-affirmation in important sports activities. The personality of the athlete is formed as a subject of sports activity by the requirements, which are necessary for success and self-affirmation in the sports activity. We identified important characteristics for self-assessment and mutual evaluation of elite volleyball players according to the significance rating: performance of technical actions, game thinking, physical preparedness, psychophysiological characteristics, tactical actions, personality features. The obtained results give grounds to assert the expediency of applying self-esteem correction by increasing it in the practice of training elite athletes, which will improve their sportsmanship.

Keywords: self-esteem, level of ambitions, self-affirmation, cognitive resource, elite athlete.

Introduction

Self-esteem is an important property of the individual, as it plays the role of a regulator of activity, thus ensuring its best adaptation to ever-changing living conditions. In this regard, most authors who study this mental phenomenon, call it the most important part of self-awareness and self-concept of personality (Petrovsky, 1982; Rean, 1999; Herbert, 2011; Napolitano, 2016). At the present stage of sports development, psychological training of an athlete is becoming increasingly important (Korobeynikov, et al., 2021; Petrovska, et al., 2021; Voronova, et al., 2021; Voronova, et al., 2017; Naidiffer, 1979). Psychological training is increasingly viewed in terms of psychological or cognitive resources of the athlete (Kolosov, 2006). As a such psychological resource of the athlete the authors studied stress resistance (Arnautova, 2019), aggression (Petrovska, et al., 2021), emotional intelligence (Petrovska, et al., 2021), creative thinking (Manko & Petrovska, 2007) and other personal qualities. All studies found differences in the manifestation of these characteristics for elite and non-elite athletes. We considered control over one's own emotions as a component of an athlete's psychological resource (Petrovska, et al., 2021). Self-esteem is considered by many authors to be one of the factors in the athlete's psychological resource (Kolosov, 2006; Kurilkin, 1998; Lozhkin, et al., 2007; Lyashenko, 2007). It seems appropriate to compare the self-esteem of elite and non-elite athletes. In sports psychology, the question of the role of self-esteem is often associated with the athlete's adaptive capacity (Lozovaya, 2002; Arnautova, Petrovska, 2019). The need to counteract a wide range of stress factors that arise in the course of training and competition puts special demands on the athlete's personality. The ability to adapt to high loads and constant competition while achieving high results forms an athlete's complex of personal qualities (Lyashenko, et al., 2020). Emotional stability (the strong positive and resilience), confidence and motivation, purposes, optimism, ability to concentrate and high self-esteem create a stable psychological profile of a qualified athlete

(Petrovskaya & Arnautova, 2019). If athletes have such psychological resources, they can overcome stressful events, and in the process of overcoming, will be able to acquire new protective factors that result in the study of the situation and adaptation to it (Lozovaya, 2003). The psychological resilience of an athlete in difficult competitive conditions is often associated with overcoming strategies (Arnautova & Petrovskaya, 2019). The problem of finding an athlete's psychological resource remains relevant. The versatile use of the cognitive resources of the athlete's psyche effectively enhances the ability of athletes to realize their athletic potential at competitions. Many authors consider their self-esteem as a factor in increasing the athlete's cognitive resource (Kolosov, 2006; Voronova et al., 2017; Petrovskaya & Arnautova, 2019; Lozovaya, 2003, Vysochina & Voronova, 2012). The purpose of this work is to research the features of self-esteem in athletes of different qualifications, as one of the factors for improving the efficiency of sports activities.

Material and methods

Participants and Procedures

The Dembo-Rubinstein method was used to study the features of self-esteem and the level of ambition in athletes of different qualifications on the scales: "health", "mind and ability", "authority", "character", "skillful hands", "look", "confidence". Athletes were asked: to assess the level of development of the following characteristics (self-esteem); desirable level (level of ambition); to mark their level on appropriate visual scales (10 cm high). 149 young athletes were involved in the research, among them 31 athletes were engaged in rhythmic gymnastics, artistic gymnastics, acrobatics; 43 athletes played sports games (football, volleyball, rugby, hockey); 34 athletes were freestyle wrestling, boxing, judo. To compare the results athletes were divided into two groups: Group I – 88 elite athletes; Group II – 61 non-elite athletes. The researchers followed all protocols and procedures required by the Biomedical research Ethics Committee and conform to the directive of the Helsinki Declaration to ensure adherence to all standards for adequate protection and well-being of participants.

Data collection and analysis

We used the data generalization of scientific and methodological literature and practice experience, psychological test by Dembo-Rubinstein technique, methods of mathematical statistics. The descriptive statistics was used to determine the following parameters: arithmetic mean – \bar{x} , standard deviation – SD. Since the samples of self-esteem and level of ambition characteristics corresponded to the law of normal distribution, as confirmed by Shapiro-Wilk test, so Student t-test for independent samples was used to determine the statistical significance of differences between elite athletes' vs non-elite athletes' indicators. The calculations were performed using the Statistica 10.0 (StatSoft, Inc).

Results

The analysis of the conducted researches revealed the features of self-esteem, the level of ambitions and the difference between them among athletes of different sports qualifications (Table 1).

Table 1. Features of self-esteem and level of ambition in athletes of different qualifications, conventional units

No.	Self-esteem scale	Parameter	Groups of athletes					
			Group I. n=88		Group II. n=61		Group I vs Group II	
			Elite athletes	Non-elite athletes	t-value	p		
1	Health	Self-assessment	65.5 ± 7.4	high	66.5 ± 7.2	high	0.82	0.411
		Level of ambition	89.9 ± 9.4	very high	89.9 ± 8.9	very high	0	1
		Difference	24.4 ± 3.6	heavy	23.4 ± 3.5	heavy	1.69	0.092
2	Mind and ability	Self-assessment	65.2 ± 7.9	high	56.7 ± 7.8	medium	6.51***	0.001
		Level of ambition	87.8 ± 9.5	high	83.1 ± 10.2	high	2.84**	0.005
		Difference	21.4 ± 3.5	moderate	25.8 ± 3.2	heavy	7.94***	0.001
3	Character	Self-assessment	63.9 ± 7.5	high	59.3 ± 6.6	medium	3.95***	0.001
		Level of ambition	82.9 ± 10.1	high	82.7 ± 10.9	high	0.11	0.910
		Difference	19 ± 2.6	moderate	23.4 ± 3.6	heavy	8.18***	0.001
4	Authority	Self-assessment	65.9 ± 7.9	high	53 ± 6.5	medium	10.9***	0.001
		Level of ambition	83.5 ± 10.2	high	77.3 ± 9.1	high	3.89***	0.001
		Difference	17.6 ± 1.9	moderate	24.3 ± 2.8	heavy	16.3***	0.001

5	Skillful hands	Self-assessment	66.1± 8.7	high	60.5 ± 8.4	high	3.94***	0.001
		Level of ambition	86.4 ±10.8	high	78.5 ±9.5	high	4.72***	0.001
		Difference	20.3± 2.9	moderate	18± 2.2	moderate	5.50***	0.001
6	Look	Self-assessment	66± 7.2	high	60.2± 7.7	high	4.64***	0.001
		Level of ambition	83.2 ±10.3	high	79.1 ±9.9	high	2.44*	0.016
		Difference	17.2± 2.6	moderate	18.9± 2.1	moderate	4.40***	0.001
7	Confidence	Self-assessment	71.5 ± 8.5	high	48.7 ± 5.3	medium	20.1***	0.001
		Level of ambition	89.9 ±9.6	very high	80 ±9.3	high	6.31***	0.001
		Difference	18.4± 2.3	moderate	31.3± 3.3	heavy	26.4***	0.001

Note: \bar{x} – arithmetic mean of self-esteem indicators; SD – standard deviation; n – size of athletes sample; t – Student’s test value; statistical significance of differences at the p-level: * – p <0.05; ** – p <0.01; *** – p <0.001.

Elite athletes (Group I) showed a high level of self-esteem and high levels of ambition on all scales, and a very high level of ambition on the scales of health and confidence. High self-esteem can be considered optimal for athletes, which reflects the positive result of self-affirmation in important sports activities (Rogers, 1994). Self-esteem is adequate because it reflects the attitude towards oneself as a successful athlete, contributes to a critical evaluation of one’s capabilities in a competitive situation. Elite athletes are dominated by a moderate discrepancy between self-esteem and the level of ambition, with the exception of the “health” scale, where there is a strong discrepancy. A moderate discrepancy between these parameters indicates an adequate assessment of their capabilities. The ambitions match the athlete’s capabilities and perform a stimulating and regulating function. Non-elite athletes (Group II) showed, on most scales, average levels of self-esteem substantially lower than high-skilled athletes, except for the “health” scale. Unlike elite athletes, they have a strong discrepancy between self-esteem and the level of ambition on all scales except “look” and “skillful hands” where the discrepancy is moderate. A strong discrepancy between self-esteem and level of ambition may indicate that the athlete is experiencing uncertainty, anxiety, and, as a consequence, a decrease in psychological resources and stress resistance. The most significant differences between groups of elite and non-elite athletes in the level of self-esteem are observed on the scales of “mind and ability”, “authority” and “confidence” (p<0.001). This may indicate that these athlete’s characteristics were more important for the success of sports activities and were the components of the athlete’s cognitive resource (Figure 1).

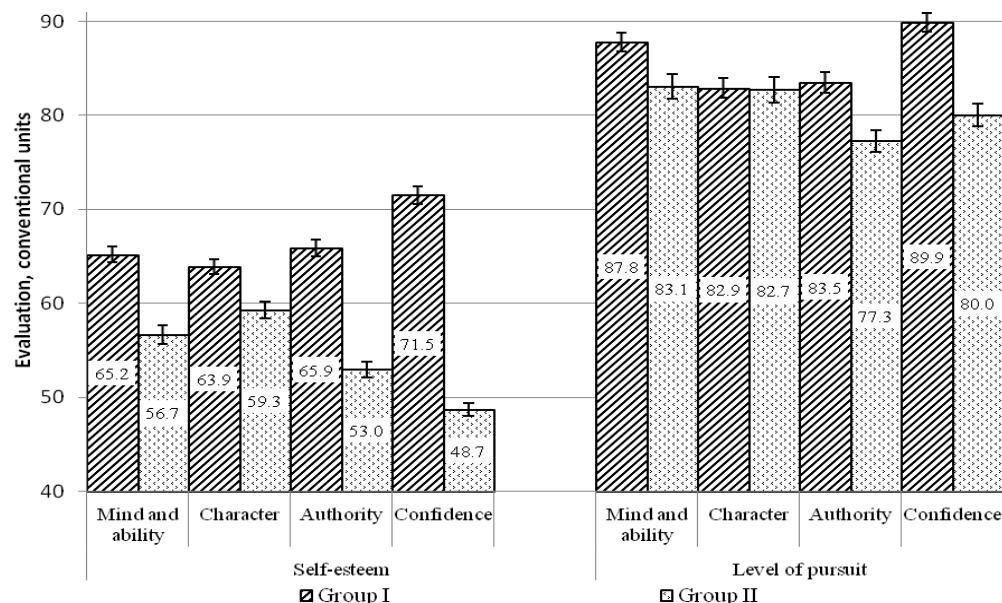


Figure 1. Features of levels of self-esteem and level of ambition in elite and non-elite athletes

According to the research results, high self-esteem is one of the factors of cognitive resource manifestation for qualified athlete.

Discussion

The mechanism of influence of self-esteem on self-affirmation of personality has been considered in the scientific literature from different points of view and by many researchers (Budassi, 1973; Lozovaya, 2003). Most psychologists see self-assertion as one of the fundamental social needs. Self-affirmation is most often accomplished as a result of achievements in any branch, through activities that are of particular importance to the individual. The primary role in self-affirmation of personality is played by self-esteem (Lipiridi, 2008). Personality is revealed most fully in the activity that is most important to him, to which it seeks more persistently (Kon, 1978). The personality of the athlete is formed as a subject of sports activity according to the requirements, which are necessary for success and self-affirmation in sports activity (Leontiev, 1975). As a result of the awareness and self-assessment of their abilities at each actual segment of sports activity, the athlete predicts and models, independently or with the help of a trainer, a strategy of preparation and performance at competitions (Petrovsky, 1973). Self-esteem can be considered as a cognitive scheme that generalizes the athlete's experience, structures new information regarding the "I" image in new conditions of competitive activity (Kon, 1978; Lipiridi, 2008). Without adequate self-rating, it is practically impossible to achieve high results in any activity, since it is an important factor in a person's mobilization of his spiritual and physical forces during self-affirmation. In a competition, an athlete with inadequate self-rating is more susceptible to the effects of stress factors. Any change in the assessment of oneself is acutely felt, perceived as discomfort, a threat to one's "I", for protection of which he may use aggressive actions (Petrovska et al., 2021). In our study, we demonstrated the significant differences of self-esteem of elite and non-elite athletes on the characteristics of "mind and ability", "authority" and "confidence". But the success of an athlete depends on many special indicators in addition to these general characteristics. Petrovskaya (2015) identified the following important characteristics for player's self-assessment and mutual evaluation (by significance rating): 1 – performance of technical actions, 2 – game thinking, 3 – physical preparedness, 4 – psychophysiological characteristics, 5 – performing tactical actions, 6 – character features according to the expert assessments results by elite volleyball players and coaches (Figure 2). Rating of the elite volleyball player's preparedness characteristics was determined by experts – 14 elite volleyball players and 2 coaches. Kendall coefficient of concordance was equal to 0.211 ($p=0.005$).

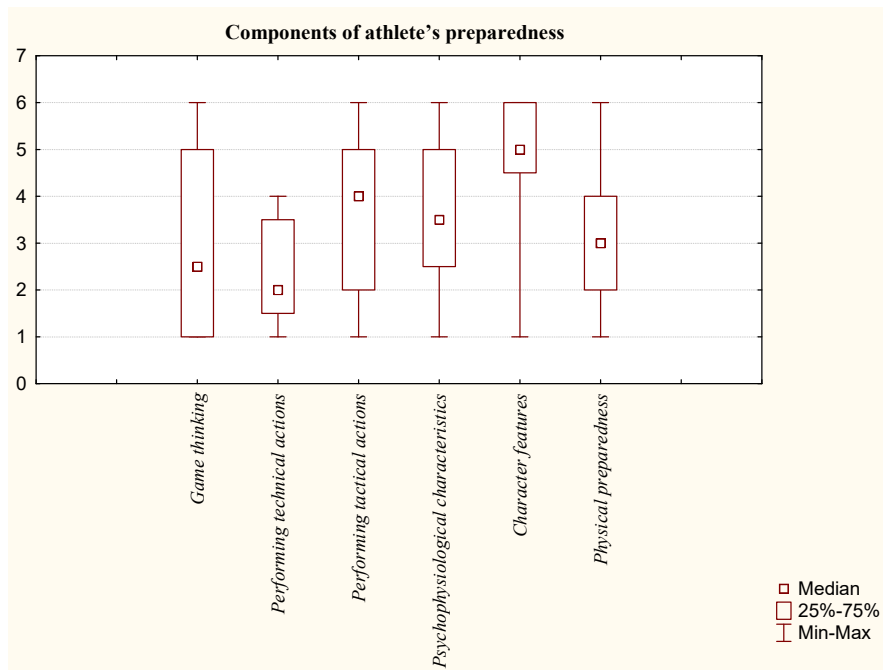


Figure 2. Rating of the elite volleyball player's preparedness characteristics that were significant for their self-assessment

Performing technical actions is the key to success in all sports. Therefore, it is quite clear that this characteristic for the athlete's self-esteem is ranked first in the rating by coaches and volleyball players. Competitive activity in variant and game sports takes place in the absence of information and time to make a decision. These circumstances require the activation of the cognitive processes of the athlete's psyche and the development of game and intuitive thinking to make the decision of the athlete in a situation of uncertainty (Kurilkin, 1998; Manko & Petrovskaya, 2007). The influence of the peculiarities of the game thinking of elite volleyball players on the effectiveness of competitive activity has been experimentally proved. The components

of the game and intuitive thinking of volleyball players during the decision making are determined: assessment of the situation, creativity, anticipation, impulse to act in a situation of uncertainty. The authors (Manko & Petrovskaya, 2009) identified the following meaningfully significant relationships of indicators: collectivist type of perception – with protective actions ($r = 0.72$; $p < 0.05$), visual sensations – with protective actions ($r = 0.75$; $p < 0.05$), audio sensations – with insurance ($r = 0.75$; $p < 0.05$), risk aversion has a positive linear relationship with the ball service ($r = 0.79$; $p < 0.05$).

Any activity creates special requirements not only for personality abilities, but also for psychophysiological indicators (Lomov, et al., 1978). Psychophysiological characteristics are of particular importance in all sports (Kozina, et al., 2017). Research (Voronova, et al., 2017) established a correlation between the overall self-esteem and the response rate ($r = 0.802$) of elite hockey players. The authors identified statistically significant differences between psychophysiological indicators in players of different game roles in handball and their influence on the performance of technical actions (Korobeynikov, 2019).

We defined the parameters of self-esteem that affect the effectiveness of the game activity, namely: physical qualities and health, technical and tactical preparedness, psychological readiness, including high self-esteem in elite hockey players. The authors (Voronova, et al., 2017) obtained experimental data on a reliable correlation between the level of self-esteem of elite hockey players and the manifestation of important qualities: between self-assessment of power abilities and general physical abilities ($r = 0.573$), self-assessment of speed and flexibility ($r = 0.624$), coordination abilities and general physical condition ($r = 0.606$). A high correlation is found between self-assessment of optimism and of their health ($r = 0.756$).

We understand an athlete's psychological qualities under his character features, which provide psychological stability during competitive activity and form mental strength: confidence, perseverance, motivation, stress resistance and others.

Our research is confirmed by similar results in the study of self-esteem of elite chess players (Vysochina & Voronova, 2012), tennis players (Gant, et al., 2017), track and field athletes (Lyashenko, et al., 2012) and in aerobics (Napolitano, 2016). When comparing the self-esteem and level of aspirations of elite chess players, the researchers found a high level of aspirations and self-esteem in chess players of the grandmaster level compared to masters of sports. Qualified chess players are characterized by a high level of self-esteem in combination with a high level of ambition, which is a prerequisite for their successful sports activities (Vysochina & Voronova, 2012). The authors conclude that the positive impact of a high level of ambitions and even exaggeration of their capabilities on the sports results of chess players.

The study of many authors suggests that a high level of self-esteem has a beneficial effect on the success of the game activity and the practicability of introducing psychological training on the correction of self-esteem in the athlete's preparation (Gant, et al., 2017). Consequently, the self-esteem of the training that most relevant to a particular sport influences the athlete's self-assertion, his confidence and the efficiency of competitive activity (Voronova, et al., 2017; Petrovskaya, 2015). Self-esteem and mutual evaluation of professionally important qualities also affect the effectiveness of united activities in the sports team and with the coach (Petrovskaya, et al., 2020; Balogh & Trzaskoma-Bicsérdy, 2020).

All of the above gives grounds to argue about the advisability of applying self-esteem correction by increasing it in the practice of training highly qualified athletes, which will improve their sportsmanship (Vysochina & Voronova, 2012; Lipiridi, 2008).

Conclusions

1. Self-esteem as an important tool of self-affirmation, the athlete's cognitive resource influences adaptive capacity and counteracts stress factors in competitive activities. High self-esteem can be considered as one of the factors of increasing the cognitive resource of qualified athletes.
2. Elite athletes have significantly higher self-esteem than non-elite athletes on the scales "Mind and ability", "Authority", "Confidence" ($p < 0.001$).
3. The personality of the athlete is formed as a subject of sports activity in accordance with the requirements, which are necessary for success and self-affirmation in sports activity. The self-esteem of the training components those are important for a certain sport influences the athlete's self-assertion, his confidence and the efficiency of competitive activity.
4. The most important characteristics for self-evaluation and mutual evaluation of players are defined in the game sports (volleyball) by the rating of importance: performance of technical actions, game thinking, physical training, psychophysiological characteristics, tactical actions, character features.

Conflict of interests

The authors declare no conflicts of interests with respect to the research, authorship and publication of this article.

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