### **Original Article**

# Research on hubristic motivation and juniors' self-efficacy in organizational contexts

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Published online: July 31, 2024

Accepted for publication: July 15, 2024

DOI:10.7752/jpes.2024.07183

#### Abstract:

This study aims to explore and substantiate correlations between hubristic motivation and parameters such as subject activity, interpersonal communication, and the drive to achieve sports results among juniors. Methods: Valid and reliable tools previously tested in sports studies involving junior samples were employed. Standard statistical coefficients were used to establish significant correlations and identify differences. Results: Hubristic motivation among juniors was examined through two dimensions—desire for perfection (DP) and desire for superiority (DS)—highlighting their impact on juniors' self-efficacy, characterized by maximalist tendencies and confidence in achieving competitive success, influencing both formal and content aspects of sporting activities. A statistical advantage of juniors in team sports (Group 1) by the parameter "desire for perfection" and the advantage of juniors in individual sports (Group 2) by the parameter "desire for superiority" were established. It was explained that team educational-training work, learning technical schemes and practicing them in training make athletes concentrate on improving their technique and constantly ascertain that a sports result depends on well-coordinated team work. Accordingly, individual sports work can take much time to analyze and compare oneself with real or probable competitors, therefore, the desire for superiority rationally and intuitively becomes dominant. It was stated that the correlation between the desire for perfection and subject activity is the strongest one. It is logical that improvement of one's mastery is a direct way to self-efficacy and a victory result. It was established that there was no correlation between the desire for perfection and the parameter of self-efficacy "interpersonal communication". Discussion and conclusions: It was explained that efficacy facilitates friendly and warm relationships in communication and can lower requirements for oneself and teammates in practicing tactical schemes in training. It was summarized that hubristic motivation as a dichotomous unity of the desire for perfection and the desire for superiority is one of important psychological mechanisms of the formation of a junior athlete's personality and organization of a junior's motivation structure.

Keywords: desire for perfection, desire for superiority, mental health, self-actualization, social comparison, identity, competitiveness.

### Introduction

Juniors' sporting activities have their origins in children's and youth's sports. Children's and youth's sports are sports which involve children from an early age in physical culture and choosing a kind of sport. An athlete's specialization which is developed in adolescence is usually determined in children's and youth's sports. Juniors who systematically train and participate in competitions of different levels comprise the sports reserve. At this stage, a narrow specialization, which focuses an athlete's choice of professional or amateur sports and competitive or training activities, takes place. The development of children's and youth's sports is supported by the main subjects – sports schools for children and youth and professional sports clubs with a developed infrastructure. Juniors in their sports development go through a number of stages accompanied by psychological and pedagogical preparation. Character is formed, motivational sphere is developed, volitional qualities are tested and reinforced, the formation and development of an athlete's personality occur at early stages. Yu. Kozeletsky (1991) thinks that hubristic motivation as a stable desire of an individual to develop and improve self-esteem to personal self-worth accompanies people throughout their life. The researcher defines the phenomenon of hubristic motivation as presence of normal (healthy) driving forces in an individual. In his opinion, self-affirmation should be accompanied by satisfaction and expressesed in an increased feeling of individual safety, maintenance of one's individuality and uniqueness (Kozeletsky, 1991). We should consider the

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origins of the research into this phenomenon. In scientific literature, in addition to the concept "hubristic motivation", there is a widespread relevant term "hubris syndrome" (Garrard et al., 2014; Magyari et al., 2022). The term "hubris syndrome" or the so-called syndrome of self-importance was proposed in the work by D. Owen and J. Davidson (2009). The scientists studying this problem drew a conclusion that dominance arises as a compensation of anxiety and strain. The research by A. Bashtetska (2022) proves that situational anxiety is compensated due to overestimating one's own abilities and reducing criticism in evaluating the situation. We can generalize that a number of studies demonstrating the dependence of the results of an individual's activity on the parameters of situational and reactive anxiety (Popovych et al., 2021b; 2023a; 2023d; Shcherbak et al., 2023), critical thinking (Popovych et al., 2023e; Tavrovetska et al., 2023) and the work of compensatory psychological mechanisms (Blikhar et al., 2024; Petrovska, 2024; Plokhikh, 2023; Plokhikh et al., 2024).

K. Fomenko (2018) believes that hubristic motivation as an individual's desire for maintaining one's own self-esteem and self-worth manifests itself in the process of self-affirmation of the subject of activity. Selfaffirmation in sports has a pronounced resultant component. The research by I. Popovych et al. (2020a) proves that athletes' self-efficacy depends on the level of psychological safety of a training-educational environment. Safe conditions accompanying activity has a positive impact on its effectiveness (Blynova et al., 2022; Kalenchuk et al., 2023). At the same time, safe conditions reduce the dominance of anxiety and mental strain (Zhuravlova et al., 2023). In this case, mechanisms compensating for anxiety and strain in the form of the hubris syndrome will not arise. Obviously, under such conditions, high hubristic motivation will not contribute to high efficacy of athletes. The researcher K. Fomenko (2010) proposed the psycho-diagnostic tool "Diagnostics of hubristic motivation" (Fomenko, 2010) establishing and statistically substantiating the two-factor nature of hubristic motivation: constructive and destructive. The constructive component is represented by the desire for perfection, and the destructive component – by the desire for superiority. The overall indicator of hubristic motivation is the sum of the two proposed scales. If the constructive component is dominant, high hubristic motivation will be observed with low parameters of psychological safety that will affect athletes' self-efficacy. If the destructive component dominates, an inverse correlation will be observed. Therefore, the research on correlations of hubristic motivation with juniors' self-efficacy is of special scientific interest. It is important to find the values of descriptive frequency characteristics of the parameters in junior athletes proposed by the author of the method of average norms (Fomenko, 2010) and compare them with similar samples.

Self-efficacy of adolescents was the research subject of I. Halian et al. (2023a; 2023b). The researchers established a correlation between personality traits and characteristics of a coach and the parameters of two dimensions of self-efficacy - subject activity and interpersonal communication. The two-factor structure of selfefficacy is somewhat related to hubristic motivation which also has two dimensions. The author of the term "self-efficacy" considers it to be a regulatory mechanism which works only under condition of good physical health and moderate emotional strain (Bandura, 1982). The scientist proved that the three factors have the greatest impact on self-efficacy – personality, a social environment and activity (Bandura, 1977). In this context, it seems relevant to establish its correlation with hubristic motivation. Self-efficacy is a resource factor in the processes of stress evaluation (Jerusalem & Schwarzer, 1992). It was found that high dispositional efficacy not only contributes to successfully coping with stress, but is also capable of being involved in assessing the current danger at initial stages through cognitive systems. Danger assessment and complex stressful conditions, as shown in a number of experimental studies (Nosov et al., 2020a; 2020b; 2021; Zinchenko et al., 2020; 2022; 2023) are identified with special tools and developed as training models aimed at minimizing risks to human life and health. In professional sports, the desire for superiority and perfection can border on an athlete's health. At the same time, excessive psycho-emotional loads contribute to creation of the expected image of a winner (Cheban et al., 2020), but take many mental resources (Popovych et al., 2022d). The expected image of a winner (Popovych et al., 2019b; 2020b) and pre-game expectations (Popovych et al., 2020c; 2023c) are a powerful social mechanism visualizing and modelling a desirable sports result. The desire for the maximum result (Popovych et al., 2023f; Strykalenko et al., 2019), immense optimism (Kurova et al., 2023), social desirability (Popovych et al., 2021c), high expectations and self-expectations (Popovych et al., 2019a; Popovych & Blynova, 2019), a sufficient level of dispositional self-development (Hrys et al., 2024; Koval et al., 2024; Popovych et al., 2023b; Shevchenko et al., 2024; Tsiuniak et al., 2024) and "blind" faith in oneself are those age-related psychological formations of adolescence which are characteristic of our junior research participants and important in the dimensions of the outlined problems. The process of an athlete's self-regulation as the ability to manage one's psycho-emotional state comes to the fore in adolescence. An individual's self-regulation (Chebykin et al., 2024; Prokhorenko et al., 2023; Shvets et al., 2024) and ability to cope with one's optimal competitive state (Alekseev, 2006) can become a key to harmonious combination of the desire for superiority through working on oneself and one's improvement, that will contribute to the development of constructive hubristic motivation of a junior. Close attention to a psychological component can leave a psycho-physiological dimension unconsidered. In a number of studies, researchers M. Cretu et al. (2021), R. Ferraz et al. (2011), Z. Kozina et al. (2019) and M. Marques et al. (2011) established and proved a direct psycho-physiological impact of certain components of competitive activity on efficacy which is partially overlooked by coaches and their athletes or is not considered to be of key importance. Since sporting activities have a pronounced resultant

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component and all sports competitions end with a certain result which is a measurement of victory, it is important to find what exactly is invested in this result (the desire for perfection or the desire for superiority). This articulation of the outlined problems determined organization of this research.

Thus, juniors' self-efficacy which is based on maximalist manifestations, personal faith and confidence in the ability to achieve a desirable competition result has a considerable impact on formal and content components of sporting activities. An important role is played by hubristic motivation which guides and athlete and determines the character of their competitive activity through the desire for perfection and the desire for superiority.

**Hypothesis.** We assume that hubristic motivation will have correlations with self-efficacy and the need for achieving a sports result which are an important regularity of junior athletes' professional growth; different levels of hubristic motivation will have statistically significant differences in the parameters of self-efficacy and the need for achieving a sports result.

The aim of the research is to establish and substantiate correlations between the statistical parameters of hubristic motivation with the parameters of subject activity, interpersonal communication and the need for achieving a sports result in juniors.

#### Methods

Methodology. The fundamental principles of the research on hubristic motivation in organization of juniors' self-efficacy were the concept of hubristic motivation of the subject of activity (Fomenko, 2018); operationalized studies on hubristic motivation in the works of M. Kuznetsov et al. (2019), A. Bashtetska (2022); the ideas of the concept of emotion self-regulation (Chebykin, 2023) and psychological support in educational-professional activity (Fomych, 2023). The three-factor theory of self-efficacy by A. Bandura (1977; 1982) formed the basis for our research. Junior athletes are positioned as subjects of sporting activities. The findings of the studies presenting dispositional self-development (Blynova et al., 2019; Halian, 2024; Kobets et al., 2021; Popovych et al., 2021a; 2022a), self-organization (Popovych et al., 2022b) and dominant mental states of adolescents (Popovych et al., 2019b) were also taken into consideration. The outlined contours of the methodological fundamentals contributed to objectiveness, reproducibility and reliability of the organized theoretical-empirical research.

Participants. The research was conducted with junior athletes aged between 15 and 19 years, with a total number of n=86 individuals representing U-17, U-19, individual and team sports. The participants had different experiences in training, were of different levels of mastery, took part in sports competitions – from regional contests of specialized sports federations to international tournaments and European and World championships. We hope that this random selection reflected the general population. The same number of male and female juniors was randomly selected for the research – n=43 of each gender. The female juniors were engaged in artistic gymnastics and handball. The parameters of the female juniors' descriptive frequency characteristics (Me=17; M=16.79;  $SD=\pm1.87$ ). The male juniors were engaged in freestyle wrestling, weightlifting and football. The parameters of the male juniors' descriptive frequency characteristics (Me=18; M=17.65;  $SD=\pm2.14$ ). There was also parity in the representation of individual and team sports. All the research participants represented sports schools for children and youth of Lviv (Ukraine) and Ivano-Frankivsk (Ukraine).

Organization of Research. The research was organized according to a summative strategy. In September 2023, the research subject, plan and algorithm were substantiated, and the permission of the Ethical Committee to conduct the research was obtained. The procedure of collecting empirical data and observing the educational training process was agreed with the administrations of the sports schools for children and youth and the coaches. The empirical data were collected in October 2023. Then the research materials were processed, designed and presented. Consistency of all the research components, the participants' awareness and confidentiality ensured sincerity of the responses and reliability of the empirical data.

Procedures and instruments. The outlined contours of the research methodology allowed accurately selecting psycho-diagnostic tools which met the requirements for such studies and optimally presented the necessary number of scales. The method "Diagnostics of hubristic motivation" (DHM) (Fomenko, 2010) was the key one. The method contained eighteen statements aimed at determining the level of development of the desire for perfection (DP) – the scale range being from 10 to 50 points, and the desire for superiority (DS) – the scale range being from 8 to 40 points. The general scale of hubristic motivation (GHM) which is the sum of points by the scales of DP and DS was also used. Two scales of the method "The Self-Efficacy Scale" (SES) (Sherer et al., 1982) were used to determine subject activity (SA) and interpersonal communication ("IC"). The need for achieving a sports result was determined by the method of the same name "Scale of the Need for Achievement" (SNA) (Orlov et al., 1974). All the proposed psycho-diagnostic tools showed medium and high levels of homogeneity (Cronbach's α-coefficient) of the empirical data – from .768 to .932.

Statistical analysis. At the first stage, the results were processes with the statistical package Data Analysis Excel. In order to find statistical parameters, the computer program "SPSS" v. 26.00.01 was applied. The figure was created using the graphic package "MS Word". The levels of p<.050; p<.010; p<.001 were considered statistically significant in establishing correlations and identifying differences.

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#### Results

Descriptive frequency characteristics were found by the scales of all the research methods. It allowed comparing the obtained values with the average norms recommended by the authors of the methods and finding differences using Student's t-test. Comparison was also performed with the empirical data obtained by other researchers on similar sports samples. Differences between the representatives of team sports (Group 1) and individual sports (Group 2) were identified using H-test of Kruskal-Wallis. Tabl. 1 presents the main parameters of the descriptive frequency characteristics by three methods: "DHM" (Fomenko, 2010), "SES" (Sherer et al., 1982) and "SNA" (Orlov et al., 1974) and comparison of the parameters.

**Table 1.** Comparison of the descriptive frequency characteristics between Group 1 and Group 2 (n = 86)

Groups	Frequency	Psychodiagnostic scales					
	parameters	DP	DS	GHM	SA	IC	NASR
	M	36.12	28.76	65.43	34.12	3.58	15.22
	SD	±5.62	±4.98	±10.45	±6.48	±.64	±2.67
Group 1	Ме	36.50	29.50	65.50	34.00	2.00	16.50
·	min	20.00	14.00	35.00	-11.00	-22.00	7.00
	max	43.00	30.00	74.00	72.00	24.00	20.00
	M	42.12	23.76	64.31	32.45	4.02	16.56
	SD	±6.12	±4.28	±10.05	±5.85	±.81	±2.85
Group 2	Ме	42.00	24.00	64.00	32.50	2.00	17.00
	min	20.00	13.00	34.00	-11.00	-22.00	8.00
	max	46.00	29.00	73.00	70.00	24.00	22.00
H-test of	Н	7.435	8.869	3.598	2.369	2.139	3.557
Kruskal-Wallis	р	.019	.012	.058	.104	.143	.055

Note: M – mean; SD – mean squared deviation; Me – median (given *in italics*); min – minimum; max – maximum; DP – desire for perfection; DS – desire for superiority; GHM – general hubristic motivation; SA – subject activity; IC – interpersonal communication; NASR – need for achieving a sports result.

In Group 1 (n = 43; 50.00%), comprising representatives of team sports, there was an advantage in the parameter of hubristic motivation "desire for perfection" (H = 7.435; p = .019). In Group 2 (n = 43; 50.00%), consisting of representatives of individual sports, there was an advantage in the parameter "desire for superiority" (H = 8.869; p = .012). There were no statistically significant differences by other parameters. Comparison of the differences by gender did not confirm significant differences between the male juniors and the female juniors, therefore, the statistical results were not given in the table.

The descriptive frequency characteristics do not have statistically significant differences proposed by the authors-developers as average typical norms: K. Fomenko (2010), M. Sherer et al. (1982), Yu. Orlov et al. (1974). Comparison of the obtained data by the method "SES" (Sherer et al., 1982) with similar sports samples, namely, with the results presented in the studies by I. Halian et al. (2023a; 2023b), found differences at the level of trends. Similar differences were identified by the method "DHM" (Fomenko, 2010) in the research of M. Kuznetsov et al. (2019). According to the method "SNA" (Orlov et al., 1974), numerously tested on sports samples, the junior sample is within the normal range. The empirical data were converted into stanines for additional visual comparison. Tabl. 2 presents the results of conversion by the parameter "mean" (M). We should note that, on the scale consisting of nine stanines, one of them was assigned a value corresponding to the empirical measurement: Stanine 1 – the lowest values and, correspondingly, Stanine 9 – the highest values.

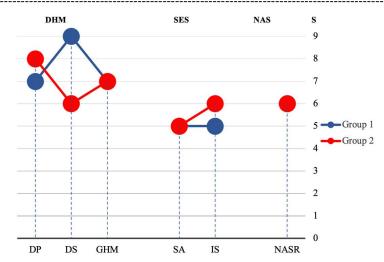
**Table 2.** Results of conversion of the empirical data into stanines (n = 86)

Groups Parameters	Psychodiagn	ostic scales					
	Parameters	пд	ПП	ЗГМ	SA	IC	ПДСР
Cassa 1	M	36.12	28.76	65.43	34.12	3.58	15.22
Group 1	S	7	9	7	5	5	6
Crown 2	M	42.12	23.76	64.31	32.45	4.02	16.56
Group 2	S	8	6	7	5	6	6

Note: M - mean; S - stanine; DP - desire for perfection; DS - desire for superiority; GHM - general hubristic motivation; SA - subject activity; IC - interpersonal communication; NASR - need for achieving a sports result.

Fig. I. graphically presents placement of the average distribution data by stanines in Group 1 and Group 2.

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Note: M – mean; S – stanine; DP – desire for perfection; DS – desire for superiority; GHM – general hubristic motivation; SA – subject activity; IC – interpersonal communication; NASR – need for achieving a sports result.

**Figure I.** Diagram of stanines of the average distribution data in Group 1 and Group 2

Comparison of the groups by stanines confirmed the advantage of Group 1 by the parameter of hubristic motivation "desire for perfection" (S = 8) and the advantage of Group 2 by the parameter "desire for superiority" (S = 9). Advantage by the parameter of self-efficacy "interpersonal communication" (S = 6) was determined in Group 2.

The next step in our research was to establish significant correlations of the parameters of hubristic motivation with the rest of the researched parameters. Tabl. 3 presents the correlation matrix of the research using Spearman's correlation coefficient  $(r_s)$ .

**Table 3.** Correlation matrix of the parameters of hubristic motivation and the researched parameters (n = 86)

	Hubristic motivation				
Parameters	Desire for perfection (DP)	Desire for superiority (DS)	General hubristic motivation (GHM)		
SA	.327**	.195*	181*		
IC	.134	.295**	.175*		
ПДСР	.278**	.202*	.234**		

Note: \*-p<.050; \*\*-p<.010; SA – subject activity; IC – interpersonal communication; NASR – need for achieving a sports result.

The correlation matrix confirmed the dominant number of significant correlations of the researched parameters – eight out of nine. All the correlations are direct. The correlations of the desire for perfection with SA ( $r_s$  = .327; p < .010) and the correlation of the desire for superiority with IC ( $r_s$  = .295; p < .010) are the strongest ones. All significant correlations of the parameter "need for achieving a sports result" with the parameters of hubristic motivation were established (.278; .202; .234).

The final research step was to compare high and low levels by the parameters of hubristic motivation. Since all the three parameters are of value, two groups were formed for comparison for each parameter. The pair of a low level and a high level by the desire for perfection comprised Group A and Group B. The median of DP was Me = 38.00. Group A involved the respondents with Me > 38.00. Significant differences were found using the statistical coefficient of U-test Mann-Whitney. Tabl. 4 presents the results of comparison.

Table 4. Results of comparison of the desire for perfection in Group A and Group B

Donomotous of solf office on	Mann-Whitney U-test		
Parameters of self-efficacy	U	p	
Subject Activity (SA)	1090.000***	<.001	
Interpersonal Communication (IC)	1843.500	.201	
Need for achieving a sports result (NASR)	1140.500***	<.001	

Note: U – statistical parameter; p – level of significance; \* –  $p \le .050$ , \*\* –  $p \le .010$  and \*\*\* –  $p \le .001$ .

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We can state that Group B with a high level of the desire for perfection has a significant advantage over Group A by the two researched parameters: "SA" (U = 1090.000; p < .001) and "NASR" (U = 1140.500; p < .001).

Tabl. 5 gives the results of comparison of Group C and Group D – with a low level and a high level of the desire for superiority. The median of the DS was Me = 27.00. Group C comprised the respondents with  $Me \le 27.00$ , and Group D consisted of the respondents with Me > 27.00.

**Table 5.** Results of comparison of the desire for perfection in Group C and Group D

Dayamataya of salf officery	Mann-Whitney U-test		
Parameters of self-efficacy	U	p	
Subject Activity (SA)	1679.000	.095	
Interpersonal Communication (IC)	1344.000***	<.001	
Need for achieving a sports result (NASR)	1445.000*	.043	

Note: U – statistical parameters; p – level of significance; \* –  $p \le .050$ , \*\* –  $p \le .010$  and \*\*\* –  $p \le .001$ .

We can state that Group D with a high level of the desire for perfection has a significant advantage over Group C by the two researched parameters: "IC" (U = 1344.000; p < .001) and "NASR" (U = 1445.000; p = .043).

Tabl. 6 gives the results of comparison of Group E and Group F – with a low level and a high level of general hubristic motivation. The median of GHM was Me = 65.00. Group E comprised the respondents with  $Me \le 65.00$ , and Group F consisted of the respondents with  $Me \ge 27.00$ .

Table 6. Results of comparison of general hubristic motivation in Group E and Group F

Danamatana of self office as	Mann-Whitney U-test		
Parameters of self-efficacy	U	р	
Subject Activity (SA)	1523.000	.081	
Interpersonal Communication (IC)	1532.000	.078	
Need for achieving a sports result (NASR)	1330.500***	.043	

Note: U – statistical parameter; p – level of significance; \* – p $\leq$ .050, \*\* – p $\leq$ .010 and \*\*\* – p $\leq$ .001.

We can state that Group F with a high level of general hubristic motivation has a significant advantage over Group E by the parameter "NASR" (U = 1330.500; p < .001).

#### Discussion

In sporting activities, the desire for perfection and the desire for superiority occupy an important place in organization of an athlete's motivation structure. Thus, hubristic motivation which is a dichotomous unity of these two desires is an important component at all stages of personal growth and development of an athlete. Researchers pay special attention to studying this phenomenon in children of primary school age (Fomenko, 2018; Kuznetsov et al., 2019) and on the samples of adolescent athletes (Lukova, 2023; Zhdaniuk et al., 2021). We agree that the formation of hubristic motivation is important in these age periods since educational-training motivation, evaluation of one's results and comparison with peers and intimate-personal communication determine the content of activity and are driving forces of the leading type of activity at these age stages. At the same time, new psychological age-related formations of adolescence, maximalist manifestations, the formation of worldview, professional self-realization, the intention of self-fulfillment in sporting activities, as convincingly shown in in the studies by A. Kariyev et al. (2024), I. Popovych et al. (2022c), O. Smolinska et al. (2024), testify to the importance of researching this motivation in adolescents. The dichotomous nature of hubristic motivation is realized through contradictions of constructive and non-constructive dimensions. In other words, the desire for perfection (a constructive dimension) and the desire for superiority (a non-constructive dimension) constitute a powerful comparative psychological mechanism. Our observation was confirmed by empirical data (see Tabl. 1) that the extreme variants of combination of a high level of the desire for superiority and a very low level of the desire for perfection and vice versa are not always capable of ensuring a permanent sports result and an athlete's stable development. In scientific literature there is much information about the nature of hubristic motivation which is hardly dependent on athletes' gender. We confirmed that there are no statistically significant differences in this comparison. We should note that development of the desire for perfection and the desire for superiority has absolutely different factors constituting an operational component (Fomenko, 2018). Much depends on a junior athlete's mindset developed in training and before competitions. It can be working on oneself or searching for advantages over competitors. It can also be identifying weaknesses that is sometimes of key importance. The proposed procedure of comparison of the researched parameters of team (Group 1) and individual sports (Group 2) appeared to be successful (see Tabl. 1). It demonstrated the advantage of juniors in team sports by the

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parameter "desire for perfection" and the advantage of juniors in individual sports by the parameter "desire for superiority". Similar results were obtained by researcher S. Lukova (2023) on a junior sports sample. A significant advantage of Group 1 by the parameter "desire for perfection" can be explained by the fact that team educational-training work, learning technical schemes and practicing them in training make athlete concentrate on improving techniques and constantly ascertain that a sports result depend on well-coordinated team work. The athletes in Group 2 spend much time on analyzing and comparing themselves with real or probable competitors, therefore, the desire for superiority rationally and intuitively becomes dominant.

At the same time, there are no differences by the general scale (GHM) that testifies to a situational component of the development of hubristic motivation. The proposed procedures of stanines (see Tabl. 2) allowed performing additional comparison of the researched parameters. The previously identified advantages were confirmed, and it was found (see Fig. I) that Group 2 has a significant advantage by the parameter of self-efficacy "interpersonal communication".

The established correlation of the researched parameters (see Tabl. 3) appeared to be expectedly direct. The correlation between the desire for perfection and subject activity is the strongest one. It is logical that improvement of one's mastery is a direct way to self-efficacy and a victory result. At the same time, there was no correlation between the desire for perfection and the parameter of self-efficacy "interpersonal communication". We can explain it by the fact that working on improving individual and team mastery contradicts building effective (friendly) relationships. Obviously, efficacy in communication contributes to warm and friendly relationships that can lower juniors' requirements for themselves and teammates when they practice tactical schemes in training.

Comparison of high and low levels by the parameters of hubristic motivation (see Tabl. 4–6) demonstrated that the need for achieving a sports result has a significant advantage in Group B (a high level of the desire for perfection), Group D (a high level of the desire for superiority), Group F (a high level of general hubristic motivation). At the same time, a lack of significant differences (see Tabl. 6) in the parameters of self-efficacy "SA" and "IC" testifies that general hubristic motivation (GHM) could be ensured by combination of a high level of the parameter "desire for perfection" and a low level of the parameter "desire for superiority", and vice versa. It did not allow us to find statistically significant differences by this parameter during statistical comparison in the final variant.

The research hypotheses were confirmed, and the aim was achieved. The obtained results allow summarizing that hubristic motivation as a dichotomous unity of the desire for perfection and the desire for superiority is one of the important psychological mechanism of the formation of a junior athlete's personality and organization of a junior's motivation structure.

### Conclusions

It was analyzed and substantiated that hubristic motivation through the desire for perfection and the desire for superiority guides a junior athlete and determines the character of their sporting activities. It was emphasized that juniors' self-efficacy based on maximalist manifestations, personal faith and confidence in the ability to achieve a desirable sports result have a considerable impact on formal and content components of sporting activities. It was found that the dichotomous nature of hubristic motivation is realized through contradictions of constructive and non-constructive dimensions.

A statistically significant advantage of the juniors in team sports (Group 1) by the parameter "desire for perfection" and the advantage of the juniors in individual sports (Group 2) by the parameter "desire for superiority" were established. It was explained that team educational-training work, learning tactical schemes and practicing them in training make athletes concentrate on improving techniques and constantly ascertain that a sports result depends on well-coordinated team work.

Accordingly, individual sports work can take much time for analyzing and comparing oneself with real or probable competitors, therefore, the desire for superiority rationally and intuitively becomes dominant. No correlation was established between the desire for perfection and the parameter of self-efficacy "interpersonal communication". It was explained by the fact that efficacy in communication contributes to warm and friendly relationships, and can lower juniors' requirements for themselves and their teammates when they practice tactical schemes in training.

It was summarized that hubristic motivation as a dichotomous unity of the desire for perfection and the desire for superiority is one of the important psychological mechanisms of the formation of a junior athlete's personality and organization of a junior's motivation structure.

### Acknowledgments

The research was conducted within the framework of the EU program Erasmus+, the area "Development of Higher Education Potential". The project of Kherson State University "Boosting University Psychological Resilience and Wellbeing in (Post-) War Ukrainian Nation".

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#### References

- Alekseev, A. V. (2006). Get over yourself! Mental preparation in sports. Rostov on Don: Phoenix.
- Bashtetska, A. V. (2022). Hubris Syndrome as a Coping Strategy Among Leaders, 33, 180–184. https://doi.org/10.32843/2663-5208
- Bandura, A. (1977). Self-efficacy: toward a unifying theory of behavioral change. *Psychological Review*, 84, 191–215.
- Bandura, A. (1982). Self-efficacy mechanism in human agency. American Psychologist, 37, 122-147.
- Blikhar, V., Kalka, N., & Kuzo, L. (2024). Theoretical and Empirical Study on Hardiness of Participants in Military Operations. *Insight: the psychological dimensions of society*, 11, 239–259. https://doi.org/10.32999/2663-970X/2024-11-13
- Blynova, O., Popovych, I., Hulias, I., Radul, S., Borozentseva, T., Strilets-Babenko, O., & Minenko, O. (2022). Psychological safety of the educational space in the structure of motivational orientation of female athletes: a comparative analysis. *Journal of Physical Education and Sport*, 22(11), 2723–2732. https://doi.org/10.7752/jpes.2022.11346
- Blynova, O. Ye, Popovych, I. S., Bokshan, H. I., Tsilmak, O. M., & Zavatska, N. Ye. (2019). Social and Psychological Factors of Migration Readiness of Ukrainian Students. *Revista ESPACIOS*, 40(36), 4. <a href="https://www.revistaespacios.com/a19v40n36/19403604.html">https://www.revistaespacios.com/a19v40n36/19403604.html</a>
- Cheban, Yu., Chebykin, O., Plokhikh, V., & Massanov, A. (2020). Mental resources for the self-mobilization of rowing athletes. *Journal of Physical Education and Sport*, 20(3), 1580–1589. https://doi.org/10.7752/jpes.2020.03216
- Chebykin, O. (2023). Psycholinguistic Mechanisms of Emotion Regulation of Educational Activity. *Insight: the psychological dimensions of society*, 10, 117–136. https://doi.org/10.32999/2663-970X/2023-10-6
- Chebykin, O., Sytnik, S., Massanov, A., & Pavlova, I. (2024). Research on the Correlation Between Emotional-Gnostic and Personal Characteristics with Parameters of Adolescents' Creativity. *Insight: the psychological dimensions of society*, 11, 105–122. https://doi.org/10.32999/2663-970X/2024-11-6
- Garrard, P., Rentoumi, V., Lambert, C., & Owen, D. (2014). Linguistic biomarkers of Hubris syndrome. Cortex, 55, 167–181.
- Cretu, M., Borysenko, I., Ushmarova, V., Grynyova, V., & Masych, V. (2021). Features of vascular regulation of students future specialists in physical education and sports of different sports specializations with different body lengths. *Health, Sport, Rehabilitation, 7*(2), 29-44. <a href="https://doi.org/10.34142/HSR.2020.07.02.03">https://doi.org/10.34142/HSR.2020.07.02.03</a>
- Ferraz, R., van den Tillaar, R., Ferraz, S., Santos, A., Mendes, R., Marinho, D., Cretu, M., Marques, M. (2011). A Pilot Study on the influence of fatigue on kicking velocity in the soccer players. *Journal of Physical Education and Sport*, 11(2), 178-181.
- Fomenko K. I. (2010). Development and testing of the methodology "Diagnostics of hubristic motivation". Bulletin of Kharkiv National University named after V. N. Karazin. Series: Psychology, 43(902), 301–304.
- Fomenko, K. I. (2018). Psychology of hubristic motivation: phenomenology, structure, determination. Kharkiv: KhNPU.
- Fomych, M. V. (2023). Checking the effectiveness of modern technologies in the work of a psychologist with firefighters-rescuers. *Insight: the psychological dimensions of society*, 9, 169–189. <a href="https://doi.org/10.32999/KSU2663-970X/2023-9-10">https://doi.org/10.32999/KSU2663-970X/2023-9-10</a>
- Halian, A. (2024). Personal Predictors of Future Medical Workers Adaptation to the Conditions of Professional Activity. *Insight: the psychological dimensions of society*, 11, 343–363. <a href="https://doi.org/10.32999/2663-970X/2024-11-18">https://doi.org/10.32999/2663-970X/2024-11-18</a>
- Halian, I., Popovych, I., Hulias, I., Serbin, Iy., Vyshnevska, O., Kovalchuk, Z., & Pyslar, A. (2023a). Correlation between personality traits of young athletes and their level of self-efficacy. *Journal of Physical Education* and Sport, 23(5), 1119–1129. <a href="https://doi.org/10.7752/jpes.2023.05140">https://doi.org/10.7752/jpes.2023.05140</a>
- Halian, I., Popovych, I., Vovk, V., Kariyev, A., Poleshchuk, L., & Halian, O. (2023b). Correlation of the coach's qualities and junior athletes' self-efficacy. *Journal of Physical Education and Sport*, 23(7), 1621–1630. https://doi.org/10.7752/jpes.2023.07199
- Hrys, A., Pavliuk, O., Hoi, N., & Los, O. (2024). Strategies of Student Youth's Self-Representations in Choosing Behavioral Tendencies. *Insight: the psychological dimensions of society*, 11, 184–203. https://doi.org/10.32999/2663-970X/2024-11-10
- Jerusalem, M., & Schwarzer, R. (1992). Self-efficacy as a resource factor in stress appraisal processes. In R. Schwarzer (Ed.), Self-efficacy: Thought control of action (pp. 195–213). Washington, DC: Hemisphere.
- Kalenchuk, V. O., Fedchuk, O. V., & Mykhaylyuk, V. P. (2023). Relationship between corporate culture and psychological safety of training and educational space for young female athletes. *Insight: the psychological dimensions of society*, 9, 113–129. <a href="https://doi.org/10.32999/KSU2663-970X/2023-9-7">https://doi.org/10.32999/KSU2663-970X/2023-9-7</a>
- Kariyev, A., Orazbayeva, F., Imankulova, M., & Vasileva, V. (2024). Research on Academic Giftedness of Future Teachers. *Insight: the psychological dimensions of society*, 11, 164–183. https://doi.org/10.32999/2663-970X/2024-11-9

1632

\_\_\_\_\_\_

- Kobets, V., Liubchenko, V., Popovych, I., & Koval, S. (2021). Institutional Aspects of Integrated Quality Assurance of Engineering Study Programs at HEI Using ICT. In: Ivanov V., Trojanowska J., Pavlenko I., Zajac J., Peraković D. (eds). Advances in Design, Simulation and Manufacturing IV. DSMIE 2021. Lecture Notes in Mechanical Engineering. Springer, Cham, 301–310. <a href="https://doi.org/10.1007/978-3-030-77719-7\_30">https://doi.org/10.1007/978-3-030-77719-7\_30</a>
- Koval, O., Fomina, I., Golub, I., & Ozerov, D. (2024). Resilience in the Changed Conditions of Educational and Professional Training of Future Specialists of a Socionomic Profile. *Insight: the psychological dimensions of society*, 11, 204–221. <a href="https://doi.org/10.32999/2663-970X/2024-11-11">https://doi.org/10.32999/2663-970X/2024-11-11</a>
- Kozeletsky, Yu. (1991). Man multidimensional (psychological essay). Kyiv: Lybid.
- Kozina, Z., Cretu, M., Safronov, D., Gryn, I., Shkrebtii, Yu., Shepelenko, T., & Tanko, A. (2019). Dynamics of psychophysiological functions and indicators of physical and technical readiness in young football players aged 12-13 and 15-16 years during a 3-month training process. *Physiotherapy Quarterly*, 27(3), 20–27. <a href="https://doi.org/10.5114/pq.2019.86464">https://doi.org/10.5114/pq.2019.86464</a>
- Kurova, A., Popovych, I., Hrys, A., Koval, I., Pavliuk, M., Polishchuk, S., & Kolly-Shamne, A. (2023). Dispositional optimistic and pessimistic mental states of young athletes: gender differentiation. *Journal of Physical Education and Sport*, 23(4), 857–867. https://doi.org/10.7752/jpes.2023.04109
- Kuznetsov, M. A., Fomenko, K. I., & Poliluyeva, I. V. (2019). Emotional and volitional regulation of the subject of artistic and sports activities. Kharkiv: Disa plus.
- Lukova, S. V. (2023). Psychological peculiarities of the hubristic motivation of adolescent athletes. Dissertation for the degree of Doctor of Philosophy in the speciality 053 Psychology. H. S. Skovoroda Kharkiv National Pedagogical University, Kharkiv.
- Magyari, L., Pléh, C., & Forgács B. (2022). The Hungarian hubris syndrome. *PloS one*, 17(8), e0273226. https://doi.org/10.1371/journal.pone.0273226
- Marques, M. C., Pereira, F., Marinho, D. A., Reis, M., Cretu, M., & Tillaar, R. V. (2011). A comparison of ball velocity in different kicking positions with dominant and non-dominant leg in junior soccer players. *Journal of Physical Education and Sport*, 11(2), 159–166. https://www.efsupit.ro/images/stories/9.Mario.pdf
- Nosov, P., Ben, A., Zinchenko, S., Popovych, I., Mateichuk, V., & Nosova, H. (2020a). Formal approaches to identify cadet fatigue factors by means of marine navigation simulators. *CEUR Workshop Proceedings*, 2732, 823–838. <a href="https://ceur-ws.org/Vol-2732/20200823.pdf">https://ceur-ws.org/Vol-2732/20200823.pdf</a>
- Nosov, P., Zinchenko, S., Plokhikh, V., Popovych, I., Prokopchuk, Y., Makarchuk, D., Mamenko, P., Moiseienko, V., & Ben, A. (2021). Development and experimental study of analyzer to enhance maritime safety. *Eastern-European Journal of Enterprise Technologies*, 4(3(112)), 27–35. <a href="https://doi.org/10.15587/1729-4061.2021.239093">https://doi.org/10.15587/1729-4061.2021.239093</a>
- Nosov, P., Zinchenko, S., Popovych, I., Safonov, M., Palamarchuk, I., & Blakh, V. (2020b). Decision support during the vessel control at the time of negative manifestation of human factor. *CEUR Workshop Proceedings*, 2608, 12–26. https://ceur-ws.org/Vol-2608/paper2.pdf
- Orlov, Yu. M., Shkurkin, V. I., & Orlova, L. P. (1974). Construction of a test questionnaire to measure the need for achievement. In: Questions of experimental psychology and its history. Moscow: PH MCNI.
- Owen, D., & Davidson, J. (2009). Hubris syndrome: An acquired personality disorder? A study of US Presidents and UK Prime Ministers over the last 100 years. *Brain*, 132(5). 1396–1406. <a href="https://doi.org/10.1093/brain/awp008">https://doi.org/10.1093/brain/awp008</a>
- Petrovska, I. (2024). Civic Identity of Ukrainians: Age, Gender, Political Dimensions. *Insight: the psychological dimensions of society*, 11, 38–56. https://doi.org/10.32999/2663-970X/2024-11-3
- Plokhikh, V., Kireieva, Z., & Skoromna, M. (2024). Emotional Accompaniment of the Organization of Time Perspective of Forced Ukrainian Migrants Staying Abroad. *Insight: the psychological dimensions of society*, 11, 15–37. https://doi.org/10.32999/2663-970X/2024-11-2
- Plokhikh, V. V. (2023). Relationship between coping behavior and students' perceptions of the passage of time. *Insight: the psychological dimensions of society*, 9, 72–93. <a href="https://doi.org/10.32999/KSU2663-970X/2023-9-5">https://doi.org/10.32999/KSU2663-970X/2023-9-5</a>
- Popovych, I., Blynova, O., Aleksieieva, M., Nosov, P., Zavatska, N., & Smyrnova, O. (2019a). Research of Relationship between the Social Expectations and Professional Training of Lyceum Students studying in the Field of Shipbuilding. *Revista ESPACIOS*, 40(33), 21. <a href="https://www.revistaespacios.com/a19v40n33/19403321.html">https://www.revistaespacios.com/a19v40n33/19403321.html</a>
- Popovych, I., Blynova, O., Bokshan, H., Nosov, P., Kovalchuk, Z., Piletska, L., & Berbentsev, V. (2019b). The Research of the Mental States of Expecting a Victory in Men Mini-football Teams. *Journal of Physical Education and Sport*, 19(4), 2343–2351. https://doi.org/10.7752/jpes.2019.04355
- Popovych, I., Blynova, O., Nosov, P., Zinchenko, S., & Kononenko, O. (2021a). Psychological factors of competitiveness of the women's youth handball team. *Journal of Physical Education and Sport*, 21(1), 227–235. <a href="https://doi.org/10.7752/jpes.2021.01030">https://doi.org/10.7752/jpes.2021.01030</a>
- Popovych, I., Blynova, O., Savchuk O., & Halian, I. (2020a). Self-efficacy of future athletes with different levels of psychological safety. *Journal of Physical Education and Sport*, 20(5), 2718–2724. <a href="https://doi.org/10.7752/jpes.2020.05370">https://doi.org/10.7752/jpes.2020.05370</a>

------

- Popovych, I., Blynova, O., Savchuk, O., Zasenko, V., & Prokhorenko, L. (2020b). Expectations of a winning result in women's handball team: comparison of different age groups. *Journal of Physical Education and Sport*, 20(5), 2709–2717. https://doi.org/10.7752/jpes.2020.05369
- Popovych, I., Chervinska, I., Kazibekova, V., Vasylyk, V., Verbeschuk, S., & Gniezdilova, V. (2022a). Young athletes' time perspective as a factor in the development of sports motivation. *Journal of Physical Education and Sport*, 22(10), 2427–2435. <a href="https://doi.org/10.7752/jpes.2022.10310">https://doi.org/10.7752/jpes.2022.10310</a>
- Popovych, I., Halian, I., Halian, O., Nosov, P., Zinchenko, S., & Panok, V. (2021b). Research on personality determinants of athlete's mental exhaustion during the ongoing COVID-19 pandemic. *Journal of Physical Education and Sport*, 21(4), 1769–1780. <a href="https://doi.org/10.7752/jpes.2021.04224">https://doi.org/10.7752/jpes.2021.04224</a>
- Popovych, I., Hrys, A., Hoian, I., Mamchur, I., Babenko, A., & Fedyk, O. (2022b). Successfulness in teenagers' sporting activities: comparative analysis of individual and team sports. *Journal of Physical Education and Sport*, 22(11), 2886–2897. <a href="https://doi.org/10.7752/jpes.2022.11365">https://doi.org/10.7752/jpes.2022.11365</a>
- Popovych, I., Hudimova, A., Bokhonkova, Yu., Savchuk, O., Hoian, I., & Shevchenko, N. (2023a). Dispositional Mental States of Internally Displaced University Teachers Under Martial Law: Gender Differences. *Journal of Education Culture and Society, 14*(2), 171–187. https://doi.org/10.15503/jecs2023.2.171.181
- Popovych, I., Hulias, I., Serbin, Iy., Piletska, L., Mashchak, S., & Zahrai, L. (2023b). Psychological content parameters of attention in the structure of time perspective of young female athletes: comparative analysis. *Journal of Physical Education and Sport*, 23(1), 152–161. https://doi.org/10.7752/jpes.2023.01019
- Popovych, I., Kosmii, M., Hrys, A., Hoi, N., Dyhun, I., Hoian, I., & Nosov, P. (2023c). Pre-competition expectation profiles among junior athletes in the context of altered sporting conditions. *Journal of Physical Education and Sport*, 23(10), 2551–2562. https://doi.org/10.7752/jpes.2023.10293
- Popovych, I., Koval, I., Raievska, Ya., Piletskyi, V., Buryanovatiy, O., & Hrynchuk, O. (2023d). Dominating mental states of the representatives of individual sports under lockdown and martial law: comparative analysis. *Journal of Physical Education and Sport*, 23(1), 170–178. <a href="https://doi.org/10.7752/jpes.2023.01021">https://doi.org/10.7752/jpes.2023.01021</a>
- Popovych, I., Plokhikh, V., Hrys, A., Pavliuk, M., Nosov, P., & Zinchenko, S. (2023e). Operationalization of footballers' emotional intelligence in the dimensions of motivational orientation: analysis based on the basic positions. *Journal of Physical Education and Sport*, 23(3), 772–781. https://doi.org/10.7752/jpes.2023.03095
- Popovych, I., Radul, I., Hoian, I., Ohnystyi, A., Doichyk, V., & Burlakova, I. (2022c). Athletes' resilience typology: a comparative analysis of individual and team sports. *Journal of Physical Education and Sport*, 22(9), 2036–2046. https://doi.org/10.7752/jpes.2022.09260
- Popovych, I., Radul, I., Radul, V., Geiko, Ie., Hoi, N., Sribna, O., Tymosh, Yu. (2022d). Construction and comparison of mental resource complexes of male and female sports teams. *Journal of Physical Education and Sport*, 22(9), 2053–2061. <a href="https://doi.org/10.7752/jpes.2022.09262">https://doi.org/10.7752/jpes.2022.09262</a>
- Popovych, I. S., & Blynova, O. Ye. (2019). Research on the Correlation between Psychological Content Parameters of Social Expectations and the Indexes of Study Progress of Future Physical Education Teachers. *Journal of Physical Education and Sport, 19*(SI 3), 847–853. https://doi.org/10.7752/jpes.2019.s3122
- Popovych, I., Shevchenko, A., Galvez, L. M., Klenina, K. (2021c). Research of the relationship between social desirability and value orientations of adolescents. *Revista Notas Históricas y Geográficas*, *26*, 241–268. <a href="https://www.revistanotashistoricasygeograficas.cl/index.php/nhyg/article/view/339">https://www.revistanotashistoricasygeograficas.cl/index.php/nhyg/article/view/339</a>
- Popovych, I., Shevchenko, N., Raievska, Ya., Myshchyshyn, M., Hoian, I., Yakovleva, S., & Los, O. (2023f). Operationalization of physical work ability of young athletes in terms of psychological well-being. *Journal of Physical Education and Sport*, 23(6), 1456–1464. https://doi.org/10.7752/jpes.2023.06178
- Popovych, I. S., Zavatskyi, V. Yu., Geyko, Ie. V., Halian, O. I., Zavatskyi, Yu. A., & Radul, I. H. (2019c).

  Research on the Structure, Variables and Interdependence of the Factors of Tourists' Mental States of Expectation for Leisure in Ukraine. *Revista ESPACIOS*, 40(37), page 22. <a href="https://www.revistaespacios.com/a19v40n37/19403722.html">https://www.revistaespacios.com/a19v40n37/19403722.html</a>
- Popovych, I., Zavatskyi, V., Tsiuniak, O., Nosov, P., Zinchenko, S., Mateichuk, V., Zavatskyi, Yu., & Blynova, O. (2020c). Research on the Types of Pre-game Expectations in the Athletes of Sports Games. *Journal of Physical Education and Sport*, 20(1), 43–52. <a href="https://doi.org/10.7752/jpes.2020.01006">https://doi.org/10.7752/jpes.2020.01006</a>
- Prokhorenko, L., Popovych, I., Sokolova, H., Chumaieva, Yu., Kosenko, Yu., Razumovska, T., & Zasenko, V. (2023). Gender differentiation of self-regulating mental states of athletes with disabilities: comparative analysis. *Journal of Physical Education and Sport*, 23(2), 349–359. https://doi.org/10.7752/jpes.2023.02042
- Shcherbak, T., Popovych, I., Kariyev, A., Duisenbayeva, A., Huzar, V., Hoian, I., & Kyrychenko, K. (2023). Psychological causes of fatigue of football players. *Journal of Physical Education and Sport*, 23(8), 2193–2202. https://doi.org/10.7752/jpes.2023.08251
- Sherer, M., Maddux, J. E., Mercandante, B., Prentice-Dunn, S., Jacobs, B., & Rogers, R. W. (1982). The Self-Efficacy Scale: Construction and Validation. *Psychological Reports*, 51(2), 663-671. https://doi.org/10.2466/pr0.1982.51.2.663

\_\_\_\_\_\_

- Shevchenko, N., Kuzmych, O., & Hmyrina, O. (2024). Personal Determination of Self-Confidence in Youth. Insight: the psychological dimensions of society, 11, 123–145. <a href="https://doi.org/10.32999/2663-970X/2024-11-7">https://doi.org/10.32999/2663-970X/2024-11-7</a>
- Shvets, D., Yevdokimova, O., & Korniienko, M. (2024). Self-Regulation and a Regulatory Focus of Combatant Police Officers. *Insight: the psychological dimensions of society*, 11, 283–299. <a href="https://doi.org/10.32999/2663-970X/2024-11-15">https://doi.org/10.32999/2663-970X/2024-11-15</a>
- Smolinska, O., Koval, I., Pavliuk, M., & Shulha, D. (2024). Research of Assertiveness in Organization of the Time Perspective of Degree-Seeking Students in Higher Education. *Insight: the psychological dimensions of society*, 11, 222–237. https://doi.org/10.32999/2663-970X/2024-11-12
- Strykalenko, Ye. A., Shalar, O. G., & Huzar, V. M. (2019). The use of integral exercises in the physical training of aykidist athletes. *Health, Sport, Rehabilitation,* 5(1), 126–131. https://doi.org/10.34142/HSR.2019.05.01.14
- Tavrovetska, N., Popovych, I., Savchuk, O., Piletska, L., Lappo, V., Abramian, N., & Zahrai, L. (2023). Research on risk inclination of young female athletes in the dimensions of life orientations. *Journal of Physical Education and Sport*, 23(4), 868–877. <a href="https://doi.org/10.7752/jpes.2023.04110">https://doi.org/10.7752/jpes.2023.04110</a>
- Tsiuniak, O., Yaremchuk, N., Haliuka, O., & Prots, M. (2024). Innovation in the Professional Formation and Development of Future Teachers. *Insight: the psychological dimensions of society*, 11, 143–163. https://doi.org/10.32999/2663-970X/2024-11-8
- Zhdaniuk, L., Lukova, S., Beseda, N., Synytsy, T., & Yopa, T. (2021). Analyzing the Characteristics of the Hubristic Motivation of Adolescent Athletes. *Journal of Research in Medical and Dental Science*, 9(7), 38–43.
- Zhuravlova, L. P., Lytvynchuk, A. I., Grechukha, I. A., & Bedny, I. S. (2023). Subclinical personal correlates of psychological safety. *Insight: the psychological dimensions of society*, *9*, 94–111. https://doi.org/10.32999/KSU2663-970X/2023-9-6
- Zinchenko, S., Tovstokoryi, O., Ben, A., Nosov, P., Popovych, I., Nahrybelnyi, Y. (2022). Automatic Optimal Control of a Vessel with Redundant Structure of Executive Devices. In: Babichev, S., Lytvynenko, V. (eds) Lecture Notes in Computational Intelligence and Decision Making. ISDMCI 2021. Lecture Notes on Data Engineering and Communications Technologies, 77. Springer, Cham. <a href="https://doi.org/10.1007/978-3-030-82014-5-18">https://doi.org/10.1007/978-3-030-82014-5-18</a>
- Zinchenko, S., Tovstokoryi, O., Nosov, P., Popovych, I., Kobets, V., & Abramov, G. (2020). Mathematical Support of the Vessel Information and Risk Control Systems. *CEUR Workshop Proceedings*, 2805, 335–354. <a href="https://ceur-ws.org/Vol-2805/paper25.pdf">https://ceur-ws.org/Vol-2805/paper25.pdf</a>
- Zinchenko, S., Tovstokoryi, O., Nosov, P., Popovych, I., & Kyrychenko, K. (2023). Pivot Point position determination and its use for manoeuvring a vessel. *Ships and Offshore Structures, 18*(3), 358–364. https://doi.org/10.1080/17445302.2022.2052480