

## Propensity for adventurousness in the motivational structure of junior athletes

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### Abstract:

This study aims to establish statistical correlations between the propensity for adventurousness and components of junior athletes' motivational structures. **Methods:** The sample consisted of juniors actively involved in competitive, training, and rehabilitative sports, regularly participating in competitions ranging from regional to international levels, including European, World, and Olympic events. The sample includes an equal number of male (n = 65; 50.00%) and female (n = 65; 50.00%) participants, as well as an equal representation from team sports (n = 65; 50.00%) and individual sports (n = 65; 50.00%), randomly selected. The size of the total sample was: n = 130 respondents aged from 17 to 19 years. The following descriptive characteristics were obtained: M = 18.38; SD = ±3.08; Me = 18.50. The applied psycho-diagnostic tools tested in numerous studies on sports psychology, on junior samples are valid, reliable and representative. **Results:** Twenty-one statistically significant correlations of the parameters of propensity for adventurousness with motives for engaging in sports and thirty-four correlations with motives for achieving a sports result ( $p \leq .050$ ;  $p \leq .010$ ;  $p \leq .001$ ) were established using Spearman's coefficient ( $r_s$ ). It was found that the parameters of propensity for adventurousness “emotional-motivational indicator of adventurousness” and “energy indicator of adventurousness” are the most dependent ones. It was explained by the fact that these components in junior athletes are a powerful mental resource which should be supported, developed and directed at volitional self-regulation. An algorithm for creating a profile of propensity for adventurousness was proposed. **Discussion and conclusions:** Comparison of the researched groups with a high level (Group 1) and a low level (Group 2) of propensity for adventurousness allowed summarizing that the athletes with a high level are guided by the desire for new sensations accompanied by adrenaline rush, frequent changes goals during sports competitions and by an immense desire for social self-affirmation. The athletes with a low level strive to improve sports skills, work on a procedural component accompanied by control, volitional efforts and self-regulation of sports behavior. It is recommended that the obtained results should be taken into consideration by coaches, psychologists and managers of sports institutions working with junior athletes.

**Keywords:** risk readiness, adolescents, self-realization, self-actualization, self-regulation, mental health, health-saving technologies.

### Introduction

The desire for achieving high results in sports activities with minimum time, physical and psycho-emotional efforts can incentivize junior athletes to resort to adventurous and frivolous actions. In scientific literature, propensity for adventurousness is analyzed in the dimensions of normality and pathology. Researchers pay attention to different behavioral disorders characteristic of adventurers. First and foremost, an adventurer is a person who constantly seeks the best and the easiest ways to achieve success. O. Sannikova et al. (2016) believe that adventurous actions allow replacing people's routine with something new that enables them to get rid of monotony and gain something valuable and desirable. True adventurers immensely believe in themselves and in the favor of fortune, possess a sense of uniqueness and chosenness. We have to admit that dominant faith in one's abilities and success can pay substantial dividends in difficult situations of junior athletes' competitive activity. Adventurousness should not be regarded as solely something negative or fraudulent. Propensity for adventurousness provides an individual with an immense resource for making creative and unordinary decisions. In turn, this behavioral strategy can facilitate or prevent adaptation processes not only in everyday life, but also in an individual's sporting activities (Sannikova & Sannikov, 2018). Adventurous behavior is often considered to be similar to the behavior of scammers. Whereas a scam is deceit and fraud, an adventure is a hope for luck and fortune, which are based not on constructive analysis of the situation, but rather on an individual's faith in themselves and their chosenness. Researcher N. Melenchuk (2017; 2021) established a number of fundamental

principles that outline this phenomenon and are topical in psychology of junior sports. Subjectively, an adventurous situation in sports is a combination of one's own interpretation of external and internal conditions which is a result and process of imagination of an athlete that encourage them for selective activeness aimed at adventurous actions, usually under extreme competitive conditions. Adventurous actions of competitive activity are considered to be the actions aimed at solving a certain competitive task under conditions of a subjective adventurous sports situation. Sporting activities are partly accompanied by adventurous behavior which is a purposeful social behavior that allows a subject of sporting activities to realize their adventurous competitive intentions. Observation of adventurous behavior encourages developing a typology or at least identifying dominant types. Types of adventurous behavior are considered to be standard or typical universal reactions to an adventurous situation. Such reactions are accompanied by optimal interaction of experiences, thinking processes and cognitive operations determining their transformations in accordance with adventurous intentions. Such articulation of the above mentioned phenomenon leads to the understanding of an athlete's adventurous resource. O. Sannikova & N. Melenchuk (2019) regard an athlete's adventurous resource as a complex of an athlete's capacities, reflecting their operational readiness to use means, techniques and methods to implement adventurous intentions in sporting activities. A considerable number of adventurous intentions are reduced to plans and actions on the sports ground, and, in our opinion, a much smaller number of them is beyond competitive activity and can relate to educational-training, rehabilitative or other types of sporting activities. If there are adventurous actions in the relationships between a coach and an athlete, it can have a considerable impact on the parameters of self-efficacy of the latter (Halian et al., 2023a; 2023b). The outlined fundamental principles, operational components and content parameters of propensity for adventurousness allow researching the phenomenon of an adventurous individual in sports. An adventurous individual in sports is someone who is characterized by adventurous behavior and quite successfully implements it for their own or their team's sports benefits. If a junior athlete is characterized by such a style of behavior, in particular, adventurous manifestations in competitive activity, it is possible to state that their behavior is adventurous. It was found that a certain combination of personality traits are predictors of propensity for adventurousness (Sannikova et al., 2021).

Analysis of age-related (Blynova et al., 2019; Bokhonkova et al., 2023; Koval et al., 2024; Karpenko et al., 2024; Popovych et al., 2022b), psychological (Popovych et al., 2022a; 2023b; 2023f) and physiological regularities (Cretu et al., 2021; Ferraz et al., 2011; Marques et al., 2011) of adolescents which are reflected in the formation of mindsets, self-fulfillment and self-realization, professional growth and youthful maximalism, readiness to challenge any experience and established norms reveals that junior athletes have special capacities, sensitive periods and abilities. A high level of self-confidence which can border on pathological overconfidence, the desire for thrills also contribute to the formation and manifestations of propensity for adventurousness. In particular, the comparative research examining representatives of parachuting and yoga highlights the unifying effect of maintaining vitality (Popovych et al., 2021b). Vitality is a unique phenomenon in competitive activity which reflects enthusiasm and fullness of an athlete's vigor. Vitality can hardly be attributed to exhausted and tired individuals (Melnychuk et al., 2023; Shcherbak et al., 2023) and also to those impacted by trauma (Khraban & Silko, 2022; Kuzikova et al., 2023). They can rather be regarded as those needing restoration of vitality and vigor. However, vitality is a limited psychological resource, and defense mechanisms deplete an individual as emphasized in the work by S. Freud (1989). The studies of V. Plokhikh (2023), Stelmashchuk et al. (2023) empirically established and substantiated dependence of an individual's performance on the functioning of defense mechanisms and coping strategies. However, we come to a different understanding that an energetic junior athlete with the desire for thrills and new experiences gradually admits the scenarios in competitive activity which can border on propensity for adventurousness and sometimes have an obvious adventurous nature. The research on expected victory states (Popovych et al., 2021a; 2023c) showed that an athlete's pre-competition expectations have correlations with sports results. Researchers M. Barlow et al. (2023) underscore in their study on expected motives of skydivers' and climbers' activities that expected motives should be differentiated from the motive of risk and should not be identified with it. We assume that propensity for adventurousness can be accompanied by an optimal state of competitive activity (Alekseev, 2006) and, as shown in a number of experimental studies, can be accompanied by the work of dominant mental states in competitive (Popovych et al., 2022e; 2023d; Prokhorenko et al., 2023), educational-training (Kurova et al., 2023) and other activities which are related to sporting activities (Popovych et al., 2023a), demonstrate dependence on the "human factor" (Nosov et al., 2021a; 2021b) and propose modern scientific solutions (Mamenko et al., 2022; Zarichanskyi, 2024; Zinchenko et al., 2021; 2022; 2023a; 2023b).

There is Wilderness Adventure Therapy (WAT) considering adventurous experiences and suggests using them for improving young people's health (Bowen et al., 2016). It is obvious that adventurous experiences are not only dangerous, they can also have a therapeutic and a health-maintaining effect. Extreme sports are attractive for junior athletes who are ready to risk the most precious – their health, and even their life. Each time adrenaline, emotions and immersion in a specific psycho-emotional state evoke a strong motive bordering on an internally formed need. At the same time, there are studies by E. Brymer et al. (2009), proving that extreme sports are not only a fight with the natural forces. They can form a friendly attitude towards nature and develop the desire to take care for its wealth. Researcher N. Tavrovetska et al. (2023) found that high indicators of

dispositional optimism are orientation towards a cognitive-behavioral risk which is accompanied by positive and negative expectations with the dominant motivation for achieving success. Our theoretical analysis shows a close relationship between propensity for adventurousness and an individual's risk-taking and highlights a poly-determined motivational nature of the latter. After all, a motive incentivizing a junior athlete to act can help us understand the essence of their adventurous behavior in certain conditions of sporting activities.

Propensity for adventurousness in organization of junior athletes' motivation structure is considered to be interdependence of attitudinal, emotional-motivational, cognitive, conative, control-regulatory and energy indicators with the parameters of motivation which can ensure or prevent achievement of sports results.

*Hypothesis.* The parameters of propensity for adventurousness will have statistically significant correlations with motivation for engaging in sports and motivation for achieving sports results in junior athletes.

*Aim.* To establish statistical correlations of the parameters of propensity for adventurousness with the components of junior athletes' motivation structure.

## Methods

*Methodology.* Fundamental principles of propensity for adventurousness in the organization of junior athletes' motivation structure involved: the concept of adventurousness and risk in the structure of decision-making O. Sannikova, O. Sannikov (2018); regularities of an individual's risk-taking (Bykova, 2012); the theoretical-methodological model of downshifting as a resource of an individual's self-realization (Kozmenko et al., 2023); the concept of emotion regularity of educational activity (Chebykin, 2023; Chebykin et al., 2024; Tsiuniak et al., 2024); the results of the research into the emotional component in extreme conditions of activity (Popovych et al., 2023e); the findings of the studies on the motivational component in sporting activities (Blynova et al., 2019; 2020; 2023); time competence in organization of an individual's activity (Zavatska et al., 2023); regularities of educational (Halian, 2023; Hoian et al., 2024; Hrys et al., 2024; Kobets et al., 2021a; 2021b; Shevchenko et al., 2024) and training activities of junior athletes (Popovych et al., 2022c; Strykalenko et al., 2019).

*Organization of Research.* In 2023 and at the beginning of 2024, the organizers collected empirical data from junior athletes who participated in competitions of different levels and were representatives of both individual and team sports. We applied a combined method of data collection which involved filling out standard forms of the methods offline and filling out identical forms online, using Google forms. The junior athletes stayed not only in Ukraine, but also abroad, were internal and external migrants and those who had lived in training camps for a long and did not experience a change in their living conditions. The randomly formed sample allowed representing the general population of the respondents. We achieved validity, reliability and representativeness in creating the researched sample. We applied a summative research strategy, performed comparison of high and low levels of propensity for adventurousness at the final stage. Since there were adventurous manifestations in the losers' actions aimed at improving the contest or performance, we made a decision to process the entire data without differentiating between winners and losers. Awareness and confidentiality allowed receiving sincere and reliable results. An equal number of questionnaires by gender and kinds of sport was randomly selected.

*Participants.* The research sample comprised adolescents who systematically engage in sports and demonstrate their intentions to pursue a career in sports – competitive, training or rehabilitative activities. Almost all the respondents regularly participate in competitions – from regional and national levels to famous international tournaments, European, World and Olympic sports competitions. There was an equal number of respondents by gender: males ( $n = 65$ ; 50.00%) and females ( $n = 65$ ; 50.00%). We also considered and randomly selected an equal number of questionnaires of the representatives of team sports ( $n = 65$ ; 50.00%) and individual sports ( $n = 65$ ; 50.00%). The size of the sample was:  $n = 130$  respondents aged from 17 to 19 years. The following descriptive characteristics were obtained:  $M = 18.38$ ;  $SD = \pm 3.08$ ;  $Me = 18.50$ .

*Procedures and instruments.* "Test-Questionnaire of Propensity to Adventurousness" (AVANT-1) (Sannikova et al., 2016) is a psycho-diagnostic tool allowing identifying components and characteristics of adventurousness. The following parameters were established: the attitudinal indicator of adventurousness (AIA); the emotional-motivational indicator of adventurousness (EMIA); the cognitive indicator of adventurousness (AIAA); the behavioral indicator of adventurousness (BIA); the control-regulatory indicator of adventurousness (CRIA); the energy (ergic) indicator of adventurousness (EIA); sensitivity to adventurous actions (SAA); the general indicator of propensity for adventurousness (GIA). The proposed structural indicators, the general indicator and characteristic – sensitivity to adventurous actions, relevantly reflected the dependent variables of the research. Homogeneity of the empirical data was registered by Cronbach's  $\alpha$ . The statistical measurement confirmed a satisfactory level of the data ( $\alpha = .687$ ).

Components of the structure of sports motivation were identified using the questionnaire "Sport Motivation Scale" (SMS) (Vallerand, 1997). The psycho-diagnostic tool proved itself in sports studies as a valid, reliable, representative and convenient test that allows determining seven parameters of motivation divided into the motives of internal and external groups. Division of the motives into external and internal is a classical differentiation of the conditions encouraging an athlete's activeness, determining their orientation, focusing their

attention on the subject and object which are indicators of values and meanings of activity. Motives of the internal group involve: the motive of learning new things (MLN); the motive of positive emotions (MPE), the motive of improving skills (MIS). The group of internal motives comprises: the motive of shifting goals (MSG); the motive of a strong sense of duty (MSSD); the motive of social approval (MSA) and demotivation (D). Demotivation is positioned as a combination of the impacts of external and internal factors which reduce the desire for engaging in sports. Homogeneity of the empirical data by the methods "SMS" (Vallerand, 1997) by Cronbach's  $\alpha$  was  $\alpha = .769$  that is a medium level of data homogeneity. The motives for engaging in sports were also determined using the method "Motives for Playing Sports" (MPS) (Shaboltas, 2004). Unlike the previous method, this method allowed determining the dominant goal (personal meanings) which incentivizes junior athletes to devote themselves to sporting activities. The method "SMS" (Vallerand, 1997) contained the scales determining the dominance of internal or external conditions, whereas "MPS" (Shaboltas, 2004) allowed measuring values and meanings of the respondents' sports motivation. Ten motives-categories were determined: emotional satisfaction (ES); social self-affirmation (SS); physical self-affirmation (PS); social-emotional motive (SEM); social-moral motive (SMM); achieving success (AS); sports-cognitive motive (SCM); rational-volitional (recreational) motive (RVM); preparation for professional activity (PPA); civil-patriotic motive (CPM). Homogeneity of the empirical data by the method "MPS" (Shaboltas, 2004) by Cronbach's  $\alpha$  was  $\alpha = .732$  that is a satisfactory level of data homogeneity. In general, results of the empirical data homogeneity are considered quality, since the methods contained a considerable number of differentiated scales which reduce the level of the empirical data homogeneity. However, the proposed methods ensured homogeneity as a main condition for using the empirical data.

*Statistical Analysis.* The main statistical operations were performed applying "IBM SPSS Statistics" version 29.0.0.0 (241). "MS Excel" and "MS Word" were also used. Results at the level  $p \leq .050$ ;  $p \leq .010$  and  $p < .001$  were considered significant. The empirical data are given through descriptive characteristics. Standard statistical coefficients were used in calculations.

## Results

The summative research strategy meant presenting the data through the main descriptive statistics. Since the median (Me), minimum (min) and maximum (max) are important for interpreting research results and discussion, they were also established and given in Tabl. 1.

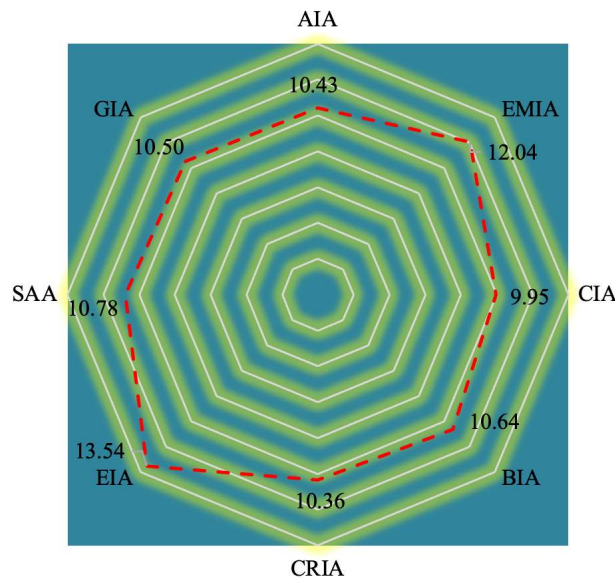
**Table 1.** Descriptive characteristics by the research methods (n = 130)

Scale	Mean (M)	Squared deviation (SD)	Median (Me)	Minimum (min)	Maximum (max)
"AVANT-1" (Sannikova et al., 2016)					
AIA	10.43	$\pm 2.12$	10.50	7.00	22.00
EMIA	12.04	$\pm 2.33$	12.00	6.00	21.00
CIA	9.95	$\pm 1.96$	10.50	4.00	20.00
BIA	10.64	$\pm 2.32$	11.00	7.00	19.00
CRIA	10.36	$\pm 2.21$	11.50	7.00	22.00
EIA	13.54	$\pm 2.98$	13.50	9.00	28.00
SAA	10.78	$\pm 2.28$	10.50	6.00	23.00
GIA	10.50	$\pm 2.19$	10.00	7.00	20.00
"SMS" (Vallerand, 1997)					
MLN	20.32	$\pm 4.09$	20.50	10.00	32.00
MPE	21.44	$\pm .46$	21.00	9.00	31.00
MIS	21.62	$\pm 4.51$	21.50	12.00	34.00
MSG	19.23	$\pm 3.94$	20.50	10.00	30.00
MSSD	20.13	$\pm 4.07$	21.50	9.00	33.00
MSA	17.35	$\pm 3.59$	19.00	8.00	29.00
D	7.25	$\pm 1.34$	7.50	3.00	14.00
"MPS" (Shaboltas, 2004)					
ES	18.79	2.11	19.00	7.00	25.00
SS	23.06	$\pm 1.92$	23.00	6.00	27.00
PS	16.63	$\pm 2.14$	17.50	8.00	24.00
SEM	19.28	$\pm 1.81$	19.50	9.00	22.00
SMM	18.05	$\pm 1.74$	18.00	8.00	29.00
AS	25.56	$\pm 2.26$	25.50	10.00	32.00
SCM	17.28	$\pm 1.71$	18.00	7.00	29.00
RVM	18.44	$\pm 1.95$	18.50	10.00	31.00
PPA	24.69	$\pm 2.29$	25.50	10.00	31.00
CPM	18.87	$\pm 1.77$	19.50	10.00	32.00

Note: AIA – attitudinal indicator of adventurousness; EMIA – emotional-motivational indicator of adventurousness; CIA – cognitive indicator of adventurousness; BIA – behavioral indicator of adventurousness; CRIA – control-regulatory indicator of adventurousness; EIA – energy indicator of adventurousness; SAA – sensitivity to adventurous actions; GIA – general indicator of propensity for adventurousness; MLN – motive of learning new things; MPE – motive of positive emotions; MIS – motive of improving skills; MSG – motive of shifting goals; MSSD – motive of a strong sense of duty; MSA – motive of social approval; D – demotivation;

ES – emotional satisfaction; SS – social self-affirmation; PS – physical self-affirmations; SEM – social-emotional motive; SMM – social-moral motive; AS – achieving success; SCM – sports-cognitive motive; RVM – rational-volitional motive; PPA – preparation for professional activity; CPM – civil-patriotic motive.

We performed comparison of the mean values (M) obtained by the method “AVANT-1” (Sannikova et al., 2016) by Student’s t-test with the average typical norms (Sannikova et al., 2016) and the results obtained in the research by O. Sannikova and O. Sannikov (2018). Given the comparison of the junior sports sample with the similar age non-sports samples, no statistically significant correlations were established. When comparing the obtained average data by the methods “SMS” (Vallerand, 1997) and MPS” (Shaboltas, 2004) with the sports samples represented in the study by O. Blynova et al. (2020), we identified minimal differences which were not statistically significant. We can state that the collected empirical material is quality and meets all the requirements for empirical studies by their main characteristics: validity, reliability, representativeness, homogeneity and similarity. The research into psychological content parameters of adventurousness allowed graphically presenting the obtained results as a profile of junior athletes’ propensity for adventurousness (Fig. I).



Note: ----- contour of propensity for adventurousness; AIA – attitudinal indicator of adventurousness; EMIA – emotional-motivational indicator of adventurousness; CIA – cognitive indicator of adventurousness; BIA – behavioral indicator of adventurousness; CRIA – control-regulatory indicator of adventurousness; EIA – energy indicator of adventurousness; SAA – sensitivity to adventurous actions; GIA – general indicator of propensity for adventurousness.

**Figure I.** Profile of junior athletes’ propensity for adventurousness

The proposed graphical presentation of the profile of junior athletes’ propensity for adventurousness (see Fig. I) allowed visually evaluating the area formed as a result of joining the eight researched parameters. The profile area marked with a red dashed line demonstrates a mental resource of junior athletes’ propensity for adventurousness. Definitely, we presented an average profile of junior athletes. It is appropriate to create personal profiles and compare them with the previous profiles of an athlete or perform comparison of different athletes’ profiles. When it comes to team sports, it is appropriate to analyze the profiles of teams, captains and players who interact and perform functions which are important for their teams.

The highest average values of the parameters of propensity for adventurousness should be emphasized in this profile: the emotional-motivational indicator of adventurousness ( $M = 12.04$ ;  $SD = \pm 2.33$ ) and the energy indicator of adventurousness ( $M = 13.54$ ;  $SD = \pm 2.98$ ). We can substantiate that junior athletes’ emotional-motivational component and energy resource are those factors which have not only a general impact on the process and result of sporting activities, but also affect the parameters and determine a mental resource of junior athletes’ propensity for adventurousness.

Correlations of propensity for adventurousness with the motives for engaging in sports were established by Spearman’s coefficient ( $r_s$ ). Tabl. 2 presents a correlation matrix.

**Table 2.** Matrix of correlations between propensity for adventurousness and motives for engaging in sports

Scale	CS	Parameters of propensity for adventurousness							
		AIA	EMIA	CIA	BIA	CRIA	EIA	SAA	GIA
MLN	<i>r</i>	.423**	.462**	.429**	.389*	.412**	.464**	.429**	.425**
	<i>p</i>	.000	.000	.000	.011	.002	.000	.000	.001
MPE	<i>r</i>		.413**				.388**		
	<i>p</i>		.003				.009		
MIS	<i>r</i>		-.389**				-.421**		-.313*
	<i>p</i>		.009				.000		.030
MSG	<i>r</i>				.283*	.252*	.398**		.324*
	<i>p</i>				.043	.045	.008		.018
MSSD	<i>r</i>								
	<i>p</i>								
MSA	<i>r</i>	.310*					.388**		.322*
	<i>p</i>	.033					.009		.019
D	<i>r</i>						-.467**		
	<i>p</i>						.000		

Note: CS – coefficients Spearman; AIA – attitudinal indicator of adventurousness; EMIA – emotional-motivational indicator of adventurousness; CIA – cognitive indicator of adventurousness; BIA – behavioral indicator of adventurousness; CRIA – control-regulatory indicator of adventurousness; EIA – energy indicator of adventurousness; SAA – sensitivity to adventurous actions; GIA – general indicator of propensity for adventurousness; MLN – motive of learning new things; MPE – motive of positive emotions; MIS – motive of improving skills; MSG – motive of shifting goals; MSSD – motive of a strong sense of duty; MSA – motive of social approval; D – demotivation; \* –  $p < .050$ ; \*\* –  $p < .010$ .

Twenty-one statistically significant correlations of the parameters of propensity for adventurousness with the motives for engaging in sports ( $p \leq .050$ ;  $p \leq .010$ ;  $p \leq .001$ ) were established, four of them being inverse. The most dependent of them are: the energy indicator of adventurousness – four direct correlations: MLN ( $r_s = .464$ ;  $p = .000$ ), MPE ( $r_s = .388$ ;  $p = .009$ ), MSG ( $r_s = .398$ ;  $p = .008$ ), MSA ( $r_s = .388$ ;  $p = .009$ ) and two inverse correlations: MIS ( $r_s = -.421$ ;  $p = .000$ ) and D ( $r_s = -.467$ ;  $p = .000$ ). The general indicator of adventurousness (GIA) also has four significant correlations: MLN ( $r_s = .425$ ;  $p = .001$ ), MIS ( $r_s = -.313$ ;  $p = .030$ ), MSG ( $r_s = .324$ ;  $p = .018$ ), MSA ( $r_s = .322$ ;  $p = .019$ ). The motive of learning new things (MLN) has the strongest direct correlations with EIA ( $r_s = .464$ ;  $p = .000$ ) and EMIA ( $r_s = .462$ ;  $p = .000$ ). It is noteworthy that the motive of learning new things has significant correlations with all the parameters of adventurousness. Obviously, learning new things, the process of self-identification in combination with the emotional component and energy resource are a special psychological formation of adolescents which incentivizes junior athletes to take risks and strive to win. The strongest inverse correlation was established between demotivation and EIA ( $r_s = -.467$ ;  $p = .000$ ). We can state that the motive of improving skills expectedly has inverse correlations with the parameters of adventurousness: EMIA ( $r_s = -.389$ ;  $p = .009$ ), EIA ( $r_s = -.421$ ;  $p = .000$ ) and GIA ( $r_s = -.313$ ;  $p = .030$ ). The motive of a strong sense of duty had no correlations. Correlations of propensity for adventurousness with the motives for achieving a sports result were established by Spearman's coefficient ( $r_s$ ). Tabl. 3 presents a correlation matrix.

**Table 3.** Matrix of correlations between propensity for adventurousness and motives for achieving a sports result

Scale	CS	Parameters of propensity for adventurousness							
		AIA	EMIA	CIA	BIA	CRIA	EIA	SAA	GIA
ES	<i>r</i>		.587**				.823**		
	<i>p</i>		.000				.000		
SS	<i>r</i>	.534**	.585**				.587**		.451**
	<i>p</i>	.000	.000				.000		.000
PS	<i>r</i>	.408**	.445**				.449**		.447**
	<i>p</i>	.007	.000				.000		.000
SEM	<i>r</i>	.535**	.546**	-.377*			.621**	.310*	.398**
	<i>p</i>	.000	.000	.011			.000	.031	.006
SMM	<i>r</i>		-.434**	-.443**			-.434**		
	<i>p</i>		.003	.000			.003		
AS	<i>r</i>	.403**	.502**				.443**	.265*	
	<i>p</i>	.009	.000				.001	.047	
SCM	<i>r</i>		-.265*				-.434**		
	<i>p</i>		.047				.003		
RVM	<i>r</i>	-.435**	-.445**		-.265*	-.442*	-.434**		-.441*
	<i>p</i>	.003	.000		.047	.000	.003		.000
PPA	<i>r</i>			.323*					
	<i>p</i>			.032					
CPM	<i>r</i>		-.435**				-.388**		
	<i>p</i>		.003				.008		

Note: CS – coefficients Spearman; AIA – attitudinal indicator of adventurousness; EMIA – emotional-motivational indicator of adventurousness; CIA – cognitive indicator of adventurousness; BIA – behavioral indicator of adventurousness; CRIA – control-regulatory indicator of adventurousness; EIA – energy indicator of adventurousness; SAA – sensitivity to adventurous actions; GIA – general indicator of propensity for adventurousness; ES – emotional satisfaction; SS – social self-affirmation; PS – physical self-affirmation; SEM – social-emotional motive; SMM – social-moral motive; AS – achieving success; SCM – sports-cognitive motive; RVM – rational-volitional motive; PPA – preparation for professional activity; CPM – civil-patriotic motive; \* –  $p < .050$ ; \*\* –  $p < .010$ .

Thirty-four statistically significant correlations of the parameters of propensity for adventurousness with the motives for achieving a sports result ( $p \leq .050$ ;  $p \leq .010$ ;  $p \leq .001$ ) were established, fourteen of them being inverse, the rest of them being direct. All the researched parameters of both methods have significant correlations. The parameters of motivation – ES, SS, PS, AS, PPA – have only direct correlations. The parameters of motivation – SMM, SCM, RVM, CPM – have only inverse correlations. The parameter of motivation “social-emotional motive” has five direct correlations and one inverse correlation. The emotional-motivational indicator of adventurousness and energy indicator of adventurousness are the most dependent ones. They have an equal number of direct correlations – five and inverse correlations – four. The correlation between the motive of emotional satisfaction and EIA is the strongest direct correlation ( $r_s = .823$ ;  $p = .000$ ). The correlation of the rational-volitional motive with EMIA is the strongest inverse correlation ( $r_s = -.445$ ;  $p = .000$ ). The rational-volitional motive has the largest number of inverse correlations with the parameters of propensity for adventurousness. Obviously, rational actions, accurate calculation and high self-regulatory readiness prevent adventurous behavior.

The final stage of the summative research strategy involved comparing two groups of junior athletes: with a high level of propensity for adventurousness, conditionally called “adventurers” (Group 1) and with a low level of propensity for adventurousness, conditionally called “non-adventurers” (Group 2). “General indicator of propensity for adventurousness” (GIA) was considered a key measurement. The median of GIA was ( $Me = 10.00$ ). Group 1 included high levels of propensity for adventurousness by  $Me > 10.00$ . Group 2 included low or equal parameters of propensity for adventurousness  $Me \leq 10.00$ . Mann-Whitney U-test was used for comparison. Tabl. 4 presents differences of comparison of the motives for engaging in sports of adventurers (Group 1) and non-adventurers (Group 2) by the method “SMS” (Vallerand, 1997).

**Table 4.** Comparison of motives for engaging in sports in Group 1 and Group 2

Motives for engaging in sports	Mann-Whitney U-test	
	U	p
Motive of learning new things (MLN)	<b>1220.000*</b>	<.001
Motive of positive emotions (MPE)	1880.500	.242
Motive of improving skills (MIS)	<b>1360.500**</b>	<.001
Motive of shifting goals (MSG)	<b>1740.500*</b>	.041
Motive of a strong sense of duty (MSSD)	1985.000	.253
Motive of social approval (MSA)	1923.000	.381
Demotivation (D)	1785.500	.098

Note: U – statistical parameter of Mann-Whitney; p – the level of significance by the Mann-Whitney U-test; \* – the level of significance  $p \leq .050$  and \*\* – the level of significance  $p \leq .010$ , the data is given in **bold type**.

It was found that Group 1 with a high level of propensity for adventurousness ( $Me > 10.00$ ) has a statistically significant advantage by two motives for engaging in sports: “MLN” ( $U = 1220.000$ ;  $p < .001$ ) and “MSG” ( $U = 1740.500$ ;  $p = .041$ ). Group 2 with a low level of propensity for adventurousness ( $Me \leq 10.00$ ) has a statistically significant advantage by “MIS” ( $U = 1360.500$ ;  $p < .001$ ). Tabl. 5 presents differences of comparison of the motives for achieving a sports result of adventurers (Group 1) and non-adventurers (Group 2) by the method “MPS” (Shaboltas, 2004).

**Table 5.** Comparison of motives for achieving a sports result in Group 1 and Group 2

Motives for achieving a sports result	Mann-Whitney U-test	
	U	p
Emotional satisfaction (ES)	1890.000	.241
Social self-affirmation (SS)	<b>1080.000*</b>	<.001
Physical self-affirmation (PS)	1923.000	.381
Social-emotional motive (SEM)	<b>1330.500*</b>	<.001
Social-moral motive (SMM)	2050.500	.432
Achieving success (AS)	1895.500	.243
Sports-cognitive motive (SCM)	<b>1360.500**</b>	<.001
Rational-volitional motive (RVM)	<b>1385.000**</b>	<.001
Preparation for professional activity (PPA)	1764.000	.093
Civil-patriotic motive (SPM)	1945.000	.402

Note: U – statistical parameter of Mann-Whitney; p – the level of significance by the Mann-Whitney U-test; \* – the level of significance  $p \leq .050$  and \*\* – the level of significance  $p \leq .010$ , the data is given in **bold type**.

It was found that Group 1 with a high level of propensity for adventurousness ( $Me > 10.00$ ) has a statistically significant advantage by two motives for achieving a sports results: “SS” ( $U = 1080.000$ ;  $p < .001$ ) and “SEM” ( $U = 1330.500$ ;  $p < .001$ ). Group 2 with a low level of propensity for adventurousness ( $Me \leq 10.00$ ) also has a statistically significant advantage by two motives: “SCM” ( $U = 1360.500$ ;  $p < .001$ ) and “RVM” ( $U = 1385.000$ ;  $p < .001$ ).

### Discussion

Propensity for adventurousness in sports is a multifaceted phenomenon which is difficult to categorize either as negative or positive. Under extreme conditions of a sports performance, in particular, a derby or a final competition, propensity for adventurousness sometimes allows taking a risk and achieving a victory result. If the scenario is unfavorable, an adventurous athlete may lose something more than a victory in a certain tournament, namely, their reputation, image, fans’ support and faith, and experience psychological or physical traumas (Baretta et al., 2017; Houge Mackenzie & Brymer, 2020). We agree with the results obtained by researchers M. Babii et al. (2023), which demonstrated that athletes who engage in individual sports, receiving pre-competition instructions from their coach, when the competition dynamics go off script, have to take risks. Athletes in team sports also receive instructions before a competition. Therefore, when a certain athlete takes a risk, it means “breaking the determined scheme of the game”, that can be accompanied by reproaches from their teammates. The effect of psychological pressure and understanding of the consequences often prevent athletes in team sports from taking risks. But it does not mean that they are not prone to adventurousness. Our observations confirm the results obtained by M. Babii et al. (2023) that athletes in team sports are less prone to risks.

The empirical results (see Tabl. 1) obtained using the method “AVANT-1” (Sannikova et al., 2016) testified that there are no statistically significant differences between the mean (M) and the general population. It indicates that junior athletes’ propensity for adventurousness is demonstrated as a situational characteristic and is developed as a situational trait. In other words, it appears that representatives of individual, in particular, team sports, are more capable of taking adventurous, risky and impulsive actions. This interpretation is confirmed in the studies of other authors (Siekanska & Wojtowicz, 2020). In this context, the above-mentioned researchers attribute a key role to self-regulation and volitional characteristics of an athlete. We agree that any danger is a catalyst of risky actions (Kalenchuk et al., 2023). An unexpected scenario can pose a danger. Athletes in team sports are partly disposed towards a victory scenario, therefore, when the competition goes off script, it is quite difficult to save it using organized actions and it happens very rarely. In fact, teams which have a high level of organizational culture, whose players have high parameters of resilience, emotional intelligence and tactical thinking, can prepare several probable scenarios on the sports ground which can ensure an expected victory results (Popovych et al., 2021c; 2022d).

The obtained correlations (see Tabl. 2 and Tabl. 3) showed that the parameters of propensity for adventurousness “emotional-motivational indicator of adventurousness” and “energy indicator of adventurousness” have the largest number of correlations with the parameters of motivation and are the most dependent ones. We can explain it by the fact that these components in junior athletes are a powerful mental resource which should be supported, developed and directed at volitional self-regulation, since we obtained inverse correlations with the above parameters of propensity for adventurousness by the parameter “rational-volitional motive” (see Tabl. 3). The development of self-regulation which dynamically occurs in adolescence is a contradiction which is capable of ensuring constructive development of a junior athlete’s potential. Comparison of the two researched groups (Group 1 and Group 2) showed and confirmed (see Tabl. 4 and Tabl. 5), that junior athletes with a high level of propensity for adventurousness (Group 1) have a statistically advantage over their counterparts by the following motives: “motive of learning new things” ( $U = 1220.000$ ;  $p < .001$ ); “motive of shifting goals” ( $U = 1740.500$ ;  $p = .041$ ); “social self-affirmation” ( $U = 1080.000$ ;  $p < .001$ ) and “social-emotional motive” ( $U = 1330.500$ ;  $p < .001$ ). It allows stating that athletes with a high level of propensity for adventurousness are guided by the desire for new sensations accompanied by adrenaline rush, frequent changes of goals during a sports competition and are driven by immense aspiration for social self-affirmation. An advantage of junior athletes with a low level of propensity for adventurousness (Group 2) was registered by the motives (see Tabl. 4 and Tabl. 5): “motive of improving skills” ( $U = 1360.500$ ;  $p < .001$ ); “sports-cognitive motive” ( $U = 1360.500$ ;  $p < .001$ ) and “rational-volitional motive” ( $U = 1385.000$ ;  $p < .001$ ). It allows explaining that improvement of sports skills, work on a procedural component accompanied by control, volitional efforts and self-regulation have an advantage in junior athletes who are not prone to adventurousness.

We can summarize that propensity for adventurousness can develop under the influence of situational factors. It is a powerful mental resource which requires self-control, volitional efforts and a high level of self-regulation readiness of a junior athletes. Such a complex in combination with high parameters of propensity for adventurousness can give hope for high victory results. The obtained scientific facts can be of applied interest for coaches, psychologists and managers of sports institutions which work with junior athletes. The research prospect can be seen in identifying differences in propensity for adventurousness in representatives of individual and team sports; developing and creating a typology of athletes’ adventurousness.



## Conclusions

It was substantiated that propensity for adventurousness in the organization of junior athletes' motivation structure is interdependence of attitudinal, emotional-motivational, cognitive, conative, control-regulatory and energy indicators with the parameters of motivation which facilitate or prevent the formation of motives for engaging in sports and achieving a sports result. Spearman's coefficient ( $r_s$ ) was used to establish twenty-one statistically significant correlations of the parameters of propensity for adventurousness with the motives for engaging in sports and thirty-four correlations with the motives for achieving a sports result ( $p \leq .050$ ;  $p \leq .010$ ;  $p \leq .001$ ). It was found that the parameters of propensity for adventurousness "emotional-motivational indicator of adventurousness" and "energy indicator of adventurousness" are the most dependent ones. It was explained by the fact that these components are a power mental resource of junior athletes which should be supported, developed and directed at volitional self-regulation. We proposed an algorithm for creating a profile of junior athletes' propensity for adventurousness. Comparison of the researched groups with a high level (Group 1) and a low level (Group 2) of propensity for adventurousness allowed stating that the athletes with a high level of propensity for adventurousness are guided by the desire for new sensations accompanied by adrenaline rush, frequent changes of goals during a sports competition and are driven by immense aspiration for social self-affirmation. It was found that the athletes with a low level of propensity for adventurousness strive to improve sports skills. Work on a procedural component accompanied by control, volitional efforts and self-regulation of sports behavior dominates in them. We can summarize that propensity for adventurousness can develop under the influence of situational factors. It is a powerful mental resource which requires self-control, volitional efforts and a high level of self-regulation readiness. The hypothesis was confirmed, and the research aim was achieved.

## References

- Alekseev, A. V. (2006). *Get over yourself! Mental preparation in sports*. Rostov on Don: Phoenix.
- Babii, M., Duchyminska, T., & Kots, M. (2023). Disposition to risk and impulsive actions in athletes of different ages. *Psychological Prospects Journal*, 41, 10–24. <https://doi.org/10.29038/2227-1376-2023-41-bab>
- Baretta, D., A. Greco, & Steca, P. (2017). Understanding Performance in Risky Sport: The Role of Self-Efficacy Beliefs and Sensation Seeking in Competitive Freediving. *Personality and Individual Differences*, 117, 161–165. <https://doi.org/10.1016/j.paid.2017.06.006>
- Barlow, M., Woodman, T., & Hardy, L. (2013). Great expectations: Different high-risk activities satisfy different motives. *Journal of Personality and Social Psychology*, 105(3), 458–475. <https://doi.org/10.1037/a0033542>
- Blynova, O., Derevianko, S., Ivanova, O., Popovych, I., & Estay Sepulveda, J. G. (2022a). Professional relevance of potential labor emigrants. *Revista Notas Históricas y Geográficas*, 29, 88–106. <https://www.revistanotashistoricasygeograficas.cl/index.php/nhyg/article/view/435>
- Blynova, O., Kruglov, K., Semenov, O., Los, O. & Popovych, I. (2020). Psychological safety of the learning environment in sports school as a factor of achievement motivation development in young athletes. *Journal of Physical Education and Sport*, 20(1), 14–23. <https://doi.org/10.7752/jpes.2020.01002>
- Blynova, O., Popovych, I., Hulias, I., Radul, S., Borozentseva, T., Strilets-Babenco, 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. <https://www.revistaespacios.com/a19v40n36/19403604.html>
- Bokhonkova, Yu., Tsymbal, S., Yaremenko, N., & Buhaiova, N. (2023). Research of Types of Learned Helplessness of Future Specialists in Foreign Philology. *Insight: the psychological dimensions of society*, 10, 213–231. <https://doi.org/10.32999/KSU2663-970X/2023-10-11>
- Bowen, D. J., Neill, J. T., & Crisp, S. J. (2016). Wilderness adventure therapy effects on the mental health of youth participants. *Evaluation and Program Planning*, 58, 49–59. DOI: 10.1016/j.evalprogplan.2016.05.005.13
- Brymer, E., G. Downey, & Gray, T. (2009). Extreme Sports as a Precursor to Environmental Sustainability. *Journal of Sport & Tourism*, 14(2–3), 193–204. <https://doi.org/10.1080/14775080902965223>
- Bykova, S. V. (2012). The specifics of risk appetite in people with different types of emotions. *Science and education*, 6, 41–45. [https://scienceandeducation.pdpu.edu.ua/journals/2012/NiO\\_6\\_2012/1/Byk.htm](https://scienceandeducation.pdpu.edu.ua/journals/2012/NiO_6_2012/1/Byk.htm)
- 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>
- Cretu, M., Borysenko, I., Ushmarova, V., Grynyova, V., & Masyh, 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. <https://doi.org/10.34142/HSR.2020.07.02.03>

- 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.
- Freud, S. (1989). *The Psychopathology of Everyday Life* Standard Edition, VI, 240–241.
- Halian, I. (2023). Personal Predictors of Future Teachers' Tolerance of Uncertainty. *Insight: the psychological dimensions of society*, 10, 137–155. <https://doi.org/10.32999/KSU2663-970X/2023-10-7>
- Halian, I., Popovych, I., Hulias, I., Serbin, Iy., Vyshnevskya, 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. <https://doi.org/10.7752/jpes.2023.05140>
- 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>
- Hoian, I., Yakovleva, S., Hulias, I., & Fomina, I. (2024). Self-Organization of Student Youth under Conditions of Social Uncertainty. *Insight: the psychological dimensions of society*, 11, 260–281. <https://doi.org/10.32999/2663-970X/2024-11-14>
- 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>
- Houge Mackenzie, S., & Brymer, E. (2020). Conceptualizing adventurous nature sport: A positive psychology perspective. *Annals of Leisure Research*, 23(1), 79–91. <https://doi.org/10.1080/11745398.2018.1483733>
- 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. <https://doi.org/10.32999/2663-970X/2023-9-7>
- Karpenko, Y., Savko, N., Lialiuik, Y., & Kolisnyk, R. (2024). Emotional Intelligence in Organization of the Personality Motivation Structure. *Insight: the psychological dimensions of society*, 11, 57–76. <https://doi.org/10.32999/2663-970X/2024-11-4>
- Khraban, T. E., & Silko, O. V. (2022). Combat and military-professional stress: the influence of emotions and emotional states on the choice of coping strategies. *Insight: the psychological dimensions of society*, 8, 71–87. <https://doi.org/10.32999/2663-970X/2022-8-6>
- Kobets, V., Liubchenko, V., Popovych, I., & Koval, S. (2021a). 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. [https://doi.org/10.1007/978-3-030-77719-7\\_30](https://doi.org/10.1007/978-3-030-77719-7_30)
- Kobets, V., Liubchenko, V., Popovych, I., & Koval, S. (2021b). Institutional Aspects of Integrated Quality Assurance of Study Programs at HEI Using ICT. *CEUR Workshop Proceedings*, 2833, 83–92. [https://ceur-ws.org/Vol-2833/Paper\\_8.pdf](https://ceur-ws.org/Vol-2833/Paper_8.pdf)
- Koval, O., Fomina, I., Golub, Iu., & Ozerov D. (2024). Resilience in the Changed Conditions of Educational and Professional Training of Future Specialists of a Socioeconomic Profile. *Insight: the psychological dimensions of society*, 11, 204–221. <https://doi.org/10.32999/2663-970X/2024-11-11>
- Kozmenko, O., Mykhailiuk, V., & Chernetska-Biletska, N. (2023). Theoretical and Methodological Model of Downshifting as an Alternative Resource of Self-Realization of a Successful Person in Dimensions of Social Transformations. *Insight: the psychological dimensions of society*, 10, 251–273. <https://doi.org/10.32999/KSU2663-970X/2023-10-13>
- 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.2023.04110>
- Kuzikova, S. B., Zlyvkov, V. L., & Lukomska, S. O. (2023). Traumatic experience of residents of the de-occupied territories of Ukraine. *Insight: the psychological dimensions of society*, 9, 228–243. <https://doi.org/10.32999/KSU2663-970X/2023-9-13>
- Mamenko, P., Zinchenko, S., Kobets, V., Nosov, P., & Popovych, I. (2022). Solution of the Problem of Optimizing Route with Using the Risk Criterion. 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. [https://doi.org/10.1007/978-3-030-82014-5\\_17](https://doi.org/10.1007/978-3-030-82014-5_17)
- 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>
- Melenchuk, N. (2017). Personal change adventurous personalities and non-adventurous personalities. *Bulletin of Postgraduate education*, 4/5(33/34), 67–78.
- Melenchuk, N. (2021). Voluntary qualities of adventure and non-adventure persons. *Scientific journal of the M. P. Drahomanov NPU*, 14(59). 52–60. [https://doi.org/10.31392/NPU-nc.series12.2021.14\(59\).06](https://doi.org/10.31392/NPU-nc.series12.2021.14(59).06)

- Melnchuk, A. Y., Komar, T. V., & Onyshchuk, T. P. (2023). Empirical study of burnout in sociology specialists through positive psychotherapy. *Insight: the psychological dimensions of society*, 9, 33–49. <https://doi.org/10.32999/KSU2663-970X/2023-9-3>
- Nosov, P., Zinchenko, S., Ben, A., Prokopchuk, Y., Mamenko, P., Popovych, I., Moiseienko, V., Kruglyj, D. (2021a). Navigation safety control system development through navigator action prediction by Data mining means. *Eastern-European Journal of Enterprise Technologies*, 2 (9(110)), 55–68. <https://doi.org/10.15587/1729-4061.2021.229237>
- Nosov, P., Zinchenko, S., Plokhikh, V., Popovych, I., Prokopchuk, Y., Makarchuk, D., Mamenko, P., Moiseienko, V., & Ben, A. (2021b). Development and experimental study of analyzer to enhance maritime safety. *Eastern-European Journal of Enterprise Technologies*, 4(3(112)), 27–35. <https://doi.org/10.15587/1729-4061.2021.239093>
- 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. <https://doi.org/10.32999/2663-970X/2023-9-5>
- Popovych, I., Blynova, O., Nass Álvarez, J. L., Nosov, P., & Zinchenko, S. (2021a). A HISTORICAL DIMENSION OF THE RESEARCH ON SOCIAL EXPECTATIONS OF AN INDIVIDUAL. *Revista Notas Históricas y Geográficas*, 27, 190–217. <https://www.revistanotashistoricasygeograficas.cl/index.php/nhyg/article/view/365>
- 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. <https://doi.org/10.7752/jpes.2022.10310>
- Popovych, I., Halian, I., Lialiuik, G., Chopyk, R., Karpenko, Ye., & Melnyk, Yu. (2022b). Research of young female handball players' self-actualizing mental states. *Journal of Physical Education and Sport*, 22(7), 1599-1607. <https://doi.org/10.7752/jpes.2022.07201>
- Popovych, I., Hrys, A., Hoian, I., Mamchur, I., Babenko, A., & Fedyk, O. (2022c). Successfulness in teenagers' sporting activities: comparative analysis of individual and team sports. *Journal of Physical Education and Sport*, 22(11), 2886–2897. <https://doi.org/10.7752/jpes.2022.11365>
- 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., Buryanovaty, O., & Hrynychuk, 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. <https://doi.org/10.7752/jpes.2023.01021>
- Popovych, I., Kuzikova, S., Shcherbak, T., Blynova, O., Lappo, V., & Bilous, R. (2021b). Empirical research of vitality of representatives of parachuting and yoga practice: a comparative analysis. *Journal of Physical Education and Sport*, 21(1), 218–226. <https://doi.org/10.7752/jpes.2021.01029>
- 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. (2022d). 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. (2022e). Construction and comparison of mental resource complexes of male and female sports teams. *Journal of Physical Education and Sport*, 22(9), 2053–2061. <https://doi.org/10.7752/jpes.2022.09262>
- Popovych, I., Shcherbak, T., Kuzikova, S., Blynova, O., Nosov, P., & Zinchenko, S. (2021c). Operationalization of tactical thinking of football players by main game roles. *Journal of Physical Education and Sport*, 21(5), 334, 2480–2491. <https://doi.org/10.7752/jpes.2021.05334>
- 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>
- Prokhorenko, L., Popovych, I., Sokolova, H., Chumaieva, Yu., Kosenko, Yu., Razumovska, T., & Zasenka, 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>

- Sannikova, O., & Melenchuk, N. (2019). The tendency to self-change as a resource for adventurousness. *PSYCHOLOGICAL JOURNAL*, 5(9), 75–86. <https://doi.org/10.31108/1.2019.5.9.5>
- Sannikova O., Melenchuk, N., & Sannikov A. (2021). Adventurousness of personality: Construct and diagnostics. *Georgian Medical News*, 2(311), 109–115.
- Sannikova, O., & Sannikov, O. (2018). Adventurousness and risk in the decision-making structure. *Science and education*, 9–10, 111–119. <https://scienceandeducation.pdpu.edu.ua/articles/2018-9-10-doc/2018-9-10-st16>
- Sannikova, O. P., Sannikov, O. I. & Melenchuk, N. I. (2016). The test questionnaire of predisposition to adventure (AVANT-1): results of approbation. *Problems of modern psychology*, 1(9), 82–88.
- Siekanska, M., & Wojtowicz, A. (2020). Impulsive athlete as a self-regulated learner. Can self-confidence and a positive social attitude change a developmental inhibitor into a growth catalyst? *Journal of Physical Education & Sport*, 20(2), 623–629. <https://doi.org/10.7752/jpes.2020.02091>
- Shaboltas, A. M. (2004). Motives for playing sports. Kyiv: Olympic Literature.
- 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>
- Shevchenko, N., Kuzmych, O., & Hmyrina, O. (2024). Personal determination of self-confidence in youth. *Insight: the psychological dimensions of society*, 11, 123–145. <https://doi.org/10.32999/2663-970X/2024-11-7>
- Stelmashchuk, K., Moroz, O., Hrabovska, S., & Partyko, T. (2023). Personal Dispositions as a Determinant of Coping Strategy Selection in Difficult Circumstances. *Insight: the psychological dimensions of society*, 10, 40–65. <https://doi.org/10.32999/KSU2663-970X/2023-10-3>
- 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. <https://doi.org/10.7752/jpes.2023.04110>
- 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>
- Vallerand, R. J. (1997). Toward a hierarchical model of intrinsic and extrinsic motivation. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (pp. 271–360). New York: Academic Press.
- Zarichanskyi, O. (2024). Social and Individual-Psychological Factors of an Individual's Propensity for Corrupt Behavior. *Insight: the psychological dimensions of society*, 11, 300–320. <https://doi.org/10.32999/2663-970X/2024-11-16>
- Zavatska, N., Petrenko, M., Zavatskyi, V., & Zhyharenko, I. (2023). Operationalization of Temporality of Future Professionals in the Field of Socionomics in the Dimensions of Psychological Well-being. *Insight: the psychological dimensions of society*, 10, 156–173. <https://doi.org/10.32999/2663-970X/2023-10-8>
- Zinchenko, S., Kobets, V., Tovstokoryi, O., Nosov, P., & Popovych, I. (2023a). Intelligent System Control of the Vessel Executive Devices Redundant Structure. *CEUR Workshop Proceedings*, 3403, 582–594. <https://ceur-ws.org/Vol-3403/paper44.pdf>
- Zinchenko, S., Moiseienko, V., Tovstokoryi, O., Nosov, P., & Popovych, I. (2021). Automatic Beam Aiming of the Laser Optical Reference System at the Center of Reflector to Improve the Accuracy and Reliability of Dynamic Positioning. In: Hu, Z., Petoukhov, S., Dychka, I., He, M. (eds). *Advances in Computer Science for Engineering and Education IV. ICCSEEA 2021. Lecture Notes on Data Engineering and Communications Technologies*, 83. Springer, Cham. [https://doi.org/10.1007/978-3-030-80472-5\\_1](https://doi.org/10.1007/978-3-030-80472-5_1)
- 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. [https://doi.org/10.1007/978-3-030-82014-5\\_18](https://doi.org/10.1007/978-3-030-82014-5_18)
- Zinchenko, S., Tovstokoryi, O., Nosov, P., Popovych, I., & Kyrychenko, K. (2023b). 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>