Original Article

Self-attitudes in the structure of motivational orientation of junior athletes

IHOR POPOVYCH¹, OLEKSANDR SAVCHUK², HALYNA MATUSIAK³, KOSTYANTYN KRUGLOV⁴, OLEKSII KRYZHANOVSKYI⁵, DANA DANKO⁶, VIKTOR HUZAR⁷

Published online: October 31, 2024

Accepted for publication: October 15, 2024

DOI:10.7752/jpes.2024.10258

Abstract:

The purpose of this study is to perform theoretical and empirical research on the role of self-attitude in shaping and developing the motivational orientation of junior athletes. Methods: The research sample consisted of junior male and female athletes aged 15–19 years (n = 82) (M = 17.22; SD = ± 1.68 ; Me = 17). All participants trained at the sports schools "LSSCY Enerhetyk" in Lviv, Ukraine and "SSSYOR №1" in Ivano-Frankivsk, Ukraine. They represented individual sports such as freestyle wrestling, judo, Greco-Roman wrestling, track and field, and artistic gymnastics, as well as team sports including football and volleyball. To assess self-attitude, the "Methods of Studying Self-Attitude" (Panteleev, 1993) were used. The dimensions of motivational orientation were evaluated using the "Athlete's Motivational Orientation" questionnaire (Smoldovskaya, 2022), and the relevant motives for juniors' sporting activities were identified through the "Motivation of Sports Activities" questionnaire (Fomenko & Lukova, 2021). Results. Twenty-five correlations, including nineteen direct correlations and six inverse correlations, were established. It was established that the most loaded parameters of juniors' self-attitudes are "self-acceptance" (SAc) with six correlations and "result-focused motivational orientation" (RsM) with seven correlations. Significant superiority of a high level of self-acceptance (Group 1) was determined by all the parameters of juniors' motivational orientation. It was emphasized that superiority by such parameters of self-attitude as "self-management" (U = 1656.50; p = .031) and "self-acceptance" (U = 1448.00; p <.001) testifies to the significance of self-management and self-acceptance for junior athletes. It was underscored that continuous negative emotions, even in juniors with high personal achievements, are capable of destroying sports success, which is indicated by the only significant superiority of Group 4 (low levels of RsM) by the parameter "self-blame" (U = 1502.00; p < .001). Discussion and conclusions. It was substantiated that the research into the phenomenon of self-attitude in the structure of motivational orientation is the study of reflective characteristics of junior athletes' self-awareness aimed at achieving optimal sports results in training, competitive, and recovery activities. The development of reflective abilities, the improvement of self-regulation readiness and the formation of self-attitude have a direct correlation with motivational orientation, which can have a positive effect on performance in sporting activities. It was recommended that the obtained scientific results should be implemented in the educational and training process of sports schools for children and youth.

Keywords: self-acceptance, leadership, psychological safety, mental health, self-management, identity, social challenges.

Introduction

The personality of a junior athlete develops in a formative way. In psychology and pedagogy of physical culture and sport, formation is defined as a system of techniques, methods, and means of social and professional impact on athletes aimed at achieving sports results, developing their worldviews, value orientations, prosocial attitudes and fostering moral principles. At the same time, professional and amateur sports should demonstrate human values and perform educational functions in society. A junior athlete's development is closely related to formation. While developing, an athlete takes a certain form – acquires socio-cultural dimensions of organization of sporting activities, and establishes a structure of educational-training work. It can promote harmonious development and ensure achievement of the Olympic performance or inhibit an athlete's sports growth (Boryshevskyi, 2012; Voronova et al., 2022). Adolescence is a sensitive stage of the formation of an athlete's self-awareness and worldview. Junior athletes make important decisions, organize their everyday lives, and build relationships with their loved ones. The values of friendship and love come to the fore. Young people try to

^{1,2}Kherson State University, Kherson, UKRAINE

¹Mykola Yarmachenko Institute of Special Pedagogy and Psychology, NAPS of Ukraine, Kyiv, UKRAINE

²Ivan Kozhedub Kharkiv National University of Air Force, Kharkiv, UKRAINE

³Kherson State Agrarian and Economic University, Kherson, UKRAINE

⁴Institute of Psychology and Entrepreneurship, Kozyn, Kyiv region, UKRAINE

⁵Donetsk State University of Internal Affairs, Kropyvnytskyi, UKRAINE

⁶Uzhhorod National University, Uzhhorod, Ukraine

⁷Kherson State Maritime Academy, Kherson, UKRAINE

retain their independence and uniqueness. In adolescence, junior athletes go through the most important psychological process – the formation of self-awareness and a stable image of their personality. At this age, the construct of "Self" (Stavytska, 2013) is established. An athlete's self-attitude is formed in early adolescence. The phenomenon of an athlete's self-attitude is authentic and stable attitude towards one's "Self", which manifests itself in cognitive, conative, emotional, and value-focused spheres of sporting activities (Panteleev, 1993). The formation of an athlete's self-attitude occurs through deepening and expanding reflective and emphatic characteristics of self-awareness. Reflective ability ensures an athlete's understanding of themselves as a subject of life, physical and sporting activities. Well-developed emphatic abilities enable an athlete to sympathize and co-experience the flowing processes of activity. Empathy fills and inspires a junior athlete's activity, and affects the formation of the emotional-volitional sphere and personal identity (Popovych et al., 2022b). We assume that there is a correlation between empathy and emotional intelligence. It is obvious that our assumption requires statistical confirmation.

Well-developed reflective and emphatic abilities of junior athletes create favorable conditions for disclosing their own internal worlds. Due to reflection, an athlete acquires the ability to immerse themselves in their inner world, better understand their experiences, be aware of their emotions, correctly identify the sources of their origin, manage their mental states, and form their "Self". The research by A. Alekseev (2006) convincingly demonstrates that the ability to manage one's mental state is the ability of athletes to prepare themselves for the optimal state of competitive (combat – by A. Alekseev, 2006) activity.

The optimal competitive state is a trained competence in which self-attitude plays a crucial role. There is a series of empirical studies determining the content parameters, types, factor structure, and conditions maintaining dominant mental states in human activity: the research on self-regulation readiness (Prokhorenko et al., 2023), changed conditions of activity (Popovych et al., 2023a), and a victory result (Popovych et al., 2019b; 2022a). Juniors' comparing themselves with their "significant others" and positioning themselves in a social environment are very important for self-attitude, motivation for educational-training, and competitive activities. Thus, self-attitude is capable of being an important constructive or destructive psychological formation of junior athletes. In this empirical study, we should identify and prove the role of self-attitude and the conditions for its functioning.

Undoubtedly, the creation of one's ideal and the desire to achieve it are powerful motivational factors. At this stage, the formation of an adequate, conscious idea of one's own value is an important factor of sporting activities which is referred to as an athlete's self-esteem (Shala et al., 2023). The researchers established a significant correlation of self-esteem with an athlete's task orientation. An intrinsic motive dominated in athletes who had a pronounced task orientation. An intrinsic motive is dominant in the leadership of junior athletes (Vidic & Burton, 2011). Examining motivation profiles of college students, L. Zason Chian and C. John Wang (2008) found that purposeful achievement orientation, self-determination, beliefs about one's sports skills, and acquired competence are key dimensions reflected in four clusters. It is known that juniors' motivational orientation towards activity is manifested in the desire to realize their potential in the chosen kind of sport (Shandruk & Hakh, 2022). Stability and dominance of motivational orientation depend on the extent to which an athlete realizes their potential in sporting activities.

Researcher A. Beletska (2020) identified differences between motivational orientations of representatives of team and individual sports. It was highlighted that the motives of achievement and struggle dominate in representatives of individual sports, and the need for self-improvement and encouragement dominates in representatives of team sports. The research of N. Zourbanos et al. (2015) found that positive self-talk in junior football mediates a correlation between motivational climate and self-efficacy. It is noteworthy that youthful idealism is observed in many junior athletes. Radicalism and the desire to resolve all situations of competitive, educational-training and recovery activities as quickly and efficiently as possible sometimes lead to rapid results, but they may also cause fatal consequences. It is important to learn how to manage one's own mental state and efficiently use one's energy resource. The motive of physical self-improvement which is pronounced in adolescence has led many juniors to sports. The desire to improve one's own fitness, have a more perfect body, and develop physical characteristics is often a dominant motive in early adolescence (Kolyada & Romanenko, 2023). In early adolescence, the first significant sports achievements contribute to the formation and consolidation of a gloristic motive of self-affirmation and recognition. Its essence lies in the desire for glory, for being famous for one's sports achievements, and for recognition.

The research into the phenomenon of self-attitude in the structure of motivational orientation of junior athletes is presented as determination of reflective characteristics of respondents' self-awareness aimed at achieving optimal sports results in training, competitive, and recovery activities.

Hypothesis. Psychological content parameters of self-attitude will have significant correlations and significant differences in the levels of formedness in the context of junior athletes' motivational orientation.

Aim. Theoretical-empirical research into the phenomenon of self-attitude in the formation and development of junior athletes' motivational orientation.

Methods

Methodology. The methodological foundations of the research included: the concept of an individual's selfawareness (Boryshevskyi, 2012), conceptual principles of the phenomenon of self-attitude (Panteleev, 1993), and the concept of social expectations as an approbation complex of athletes' self-attitudes (Popovych et al., 2023c). Self-attitude is defined as authentic and stable attitude of an individual towards their "Self", which is manifested in cognitive, conative, emotional and value spheres (Demirel, 2019; O'Rourke et al., 2014). Juniors' motivational orientation is considered to be a determinant of physical activeness and success in athletes' competitive activity (Diachenko & Tyshchenko, 2023; Popovych et al., 2023c). The empirical strategy was developed on the basis of the scientific achievements presented in the following studies: 1) age-related and psychological regularities of adolescents (Popovych et al., 2021; 2023e); 2) physiological regularities of athletes' functional readiness (Cretu et al., 2021; Kozin et al., 2022; 2023; Strykalenko et al., 2019); 3) peculiarities of the functioning of safe training space (Blynova et al., 2022); 4) regularities of athletes' self-regulation activity (Hoian et al., 2024; Hrys et al., 2024); 5) extreme conditions of an individual's activity (Nosov et al., 2020a; 2020b; Zinchenko et al., 2020; 2023); 6) the emotional component in the efficiency of activity (Chebykin et al., 2024); 7) changed conditions of competitive activity (Koval et al., 2024); 8) successful technologies for efficiency and self-efficacy in combination of educational and training activity (Halian et al., 2023a; 2023b; Popovych et al., 2020; 2023b); 9) an individual's adaptive capacity (Halian, 2024; McDowell et al., 2018; Popovych et al., 2019a). Participants. Junior male and female athletes aged 15 to 19 years comprised the research sample, with a total of n = 82 athletes. Age-related descriptive frequency characteristics were as follows: M = 17.22; SD = ± 1.68 ; Me = 17. All the junior athletes attended and trained at the sports schools: "LSSCY Enerhetyk" in Lviv, Ukraine and "SSSYOR №1" in Ivano-Frankivsk, Ukraine and "LSSCY Enerhetyk". The research participants represented the following individual sports: freestyle wrestling, judo, Greco-Roman wrestling, track and field and artistic gymnastics. Team sports were represented by football (the males' team) and volleyball (the females' team). Parity by sports and gender was maintained: individual sports (n = 41; 50.00%) and team sports (n = 41; 50.00%); males (n = 41; 50.00%) and females (n = 41; 50.00%).

Procedures and instruments. The valid and reliable psycho-diagnostic tool "Methods of Studying Self-Attitude" (MSSA) (Panteleev, 1993) was used to determine the parameters of self-attitude. The version adapted to the Ukrainian sample which consisted of one hundred and ten statements, with direct and reverse scoring, was applied. The questionnaire scales: Internal honesty (IH), Self-confidence (SC), Self-management (SM), the Looking-glass "Self" (LS), Self-value (SV), Self-acceptance (SAc), Self-attachment (SAt), Internal conflicts (IC), and Self-blame (SB). Cronbach' coefficient (α) of the empirical data homogeneity by the method was α = .743, which corresponded to a medium level. The dimensions of motivational orientation were found by the questionnaire "Athlete's Motivational Orientation" (AMO) (Smoldovskaya, 2022) and the questionnaire "Motivation of Sports Activities" (MSA) (Fomenko & Lukova, 2021). The questionnaire "Athlete's Motivational Orientation" (AMO) (Smoldovskaya, 2022) proved itself as a reliable tool which was applied in examining junior athletes (Popovych et al., 2023). It is important that "AMO" (Smoldovskaya, 2022) allowed for qualitative differentiation of motivational orientation of the juniors, who attend school and train, into the optimal number of components: subject-focused motivational orientation (SbM), result-focused orientation (RsM), socially focused motivational orientation (ScM) and individual-focused motivational orientation (InM). Stapel scale with a range of responses (0 point - "absolutely disagree"; 1 point - "almost agree", and 2 points -"absolutely agree") was used. Cronbach' coefficient (α) of the obtained data homogeneity by the method was α = .698, which corresponded to a medium level. The questionnaire "Motivation of Sports Activities" (MSA) (Fomenko & Lukova, 2021) was used to determine additional dimensions of the relevant motives of sporting activities: the Emotional motive (EM), The Motive of physical improvement (MPI), and the Gloristic motive (GM). The questionnaire contained twenty-five statements and a direct five-point scale of responses from 1 point - "absolutely disagree" to 5 points - "absolutely agree". The proposed additional variables qualitatively complemented the structure of the respondents' motivational orientation. Cronbach' coefficient (a) of the empirical data homogeneity by the method was $\alpha = .943$, which corresponded to a high level.

Organization of Research. A summative research strategy with the elements of comparison of the levels of the formedness of self-attitude parameters was applied. The empirical data set was collected using standard forms of questionnaires designed by means of Google forms. The data were purposefully collected in junior sports communities. The requirements of confidentiality and non-disclosure of personal and empirical data were met. The research participants were informed in advance and their participation was voluntary. Confidentiality, awareness and voluntariness ensured reliability of the empirical data set. The obtained results were collected between October 2023 and May 2024, within two semesters of the academic and training year. The consent to conduct research was received from the administrations of the educational sports institutions.

Statistical Analysis. At the initial stage, the results from Google forms were processed manually and entered into the tables "MS Excel". In order to determine statistical parameters, the computer program "IBM SPSS

Statistics" version 29.0.0.0 (241) was applied. The figure was created using the graphical editor "MS Word". The following statistical coefficients were used: Cronbach's coefficient (α); Student's t-test (t); the Kolmogorov-Smirnov test (λ); Pearson correlation coefficients (R); the Mann-Whitney U-test (t). The values at the levels t0.050, t0.01 were considered to be statistically significant.

Results

The main descriptive frequency characteristics of the researched parameters by "Methods of Studying Self-Attitude" (Panteleev, 1993) were determined. Tabl. 1 presents the mean of distribution (M), the squared deviation (SD), and the median of distribution (Me) of psychological content parameters of the phenomenon of junior athletes' self-attitude.

Table 1. Descriptive frequency characteristics of the parameters of junior athletes' self-attitude (n = 82)

Descriptive frequency	Parameters of self-attitude									
characteristic	IH	SC	SM	LS	SV	SAc	SAt	IC	SB	
Mean (M)	8.24	11.23	8.22	8.44	9.12	9.05	7.51	11.34	8.43	
Squared deviation (SD)	±1.37	±1.87	±1.35	±1.41	±1.51	±1.51	±1.25	±1.89	±1.47	
Median (Me)	8.00	11.00	8.50	8.50	9.00	9.00	8.00	11.50	8.50	

Note: IH – internal honesty; SC – self-confidence; SM – self-management; LS – looking-glass "Self"; SV – self-value; SAc – self-acceptance; SAt – self-attachment; IC – internal conflicts; SB – self-blame.

The obtained descriptive frequency characteristics "MSSA" (Panteleev, 1993) reflected the average values by nine dimensions of the phenomenon of self-attitude. Comparison with the norms given by S. Panteleev (1993) did not allow for identifying significant differences, only trends were observed. The respondents' internal honesty (IH) (M = 8.24; SD = ± 1.37 ; Me = 8.00) has medium values and is related to such aspects of the "Self'-image, which are important for an individual and difficult to realize. The indicators of the respondents' self-confidence (SC) (M = 11.23; SD = ± 1.87 ; Me = 11.00) are higher than the average and demonstrate the idea of oneself as an independent, strong-willed, and reliable person who deserves respect. The respondents' self-management (SM) (M = 8.22; SD = ± 1.35 ; Me = 8.50) has medium values. It reflects juniors' ideas about activeness and demonstrates their impact on competitive and educational-training activities. The indicators of the respondents' looking-glass "Self" (LS) (M = 8.44; SD = ± 1.41 ; Me = 8.50) are higher than the average and demonstrate the attitude to oneself expected from other people. The indicators of self-value (SV) $(M = 9.12; SD = \pm 1.51; Me = 9.00)$ are higher than the average and characterize emotional evaluation of one's "Self" by the internal criteria of love, friendship, and spirituality. The respondents' self-acceptance (SAc) (M = 9.05; SD = ± 1.51 ; Me = 9.00) has a medium level and demonstrates the ability to accept the real Self, even with shortcomings. The research participants' self-attachment (SAt) (M = 7.51; SD = ± 1.25 ; Me = 8.00) has medium values and testifies to unwillingness to change oneself against the backdrop of general positive self-attitude, demonstrating a sufficient level of rigidity of the "Self -concept". The indicators of the juniors' internal conflicts (IC) $(M = 11.34; SD = \pm 1.89; Me = 11.50)$ are higher than the average and demonstrate increased reflexivity. Doubts accompanied by deep contradictions and sometimes by anxiety and depression haunt these juniors. The indicators of the respondents' self-blame (SB) (M = 8.43; SD = ± 1.47 ; Me = 8.50) are higher than the average and indicate a tendency to accuse themselves of their failures and shortcomings. Description of the levels of intensity by the initial scales demonstrated the content characteristics of age-related and psychological features of the sample of junior athletes.

Tabl. 2 presents descriptive frequency characteristics of the researched parameters by the questionnaire "Athlete's Motivational Orientation" (AMO) (Smoldovskaya, 2022) and questionnaire "Motivation of Sports Activities" (MSA) (Fomenko & Lukova, 2021).

Table 2. Descriptive frequency characteristics of the parameters of motivational orientation and relevant motives of juniors' sporting activities (n = 82)

Descriptive frequency	Parameters of motivation								
characteristic	SbM	RsM	ScM	InM	EM	MPI	GM		
Men (M)	7.47	7.65	10.08	9.04	6.45	7.98	7.21		
Squared deviation (SD)	±1.29	±1.35	±1.81	±1.48	±1.08	±1.33	±1.20		
Median (Me)	7.50	7.50	10.00	9.00	6.50	8.00	7.00		

Note: SbM – subject-focused motivational orientation; RsM – result-focused motivational orientation; ScM – socially focused motivational orientation; InM – individual-focused motivational orientation; EM – emotional motive; MPI – motive of physical improvement; GM – gloristic motive.

We argue that comparison of the obtained parameters with similar data obtained in the samples of junior athletes in the studies by O. Blynova et al. (2022) and I. Popovych et al. (2023d) did not show significant differences, but rather confirmed the quality of the empirical data used in the research. It is noteworthy that the average norms recommended by the author of the methodology I. Smoldovskaya (2022) also revealed no

differences. Comparison of the obtained parameters by the questionnaire "MSA" (Fomenko & Lukova, 2021) with the data proposed by the authors did not confirm significant differences. We should note that the following parameters of motivation relevantly reflected the dimensions of junior athletes' motivation: the emotional motive (EM), the motive of physical self-improvement (MPS), and the gloristic motive (GM).

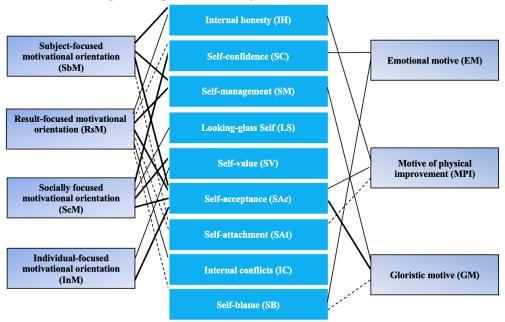
The correlation matrix of the parameters of self-attitude in the structure of junior athletes' motivational orientation is given below. Using the Kolmogorov-Smirnov test, it was found that the empirical data set has a normal distribution according to the Gaussian curve. Correlations were established using Pearson's correlation coefficient (R). Tabl. 3 presents significant correlations of the researched parameters and their nominal values (p).

Table 3. Correlation matrix of the researched parameters by Pearson's correlation coefficient (n = 82)

Scale	SP	Parameters of self-attitude									
	SP	IH	SC	SM	LS	SV	SAc	SAt	IC	SB	
SbM $\frac{R}{p}$	R	.302**		.322**			.322**	131*			
	p	<.001		<.001			<.001	.046			
RsM $\frac{R}{p}$	R	.161*	178*	.311**			.312**	178*	.161*	178*	
	p	.025	.039	<.001			<.001	.039	.025	.039	
ScM $\frac{R}{p}$	R		.299**		.148*	.297**	.301**				
	p		<.001		.028	<.001	<.001				
InM $\frac{R}{p}$	R					.183*	.332**				
	p					.019	<.001				
EM	R		.131*							.169*	
EIVI	p		.046							.024	
MPI $\frac{R}{p}$	R	.169*					.157*	155*			
	p	.024					.026	.027			
GM	R			.157*			.330**			158*	
	p			.026			<.001			.023	

Note: SP – statistical parameter; R – Pearson's coefficient; p – nominal value; IH – internal honesty; SC – self-confidence; SM – self-management; LS – looking-glass "Self"; SV – self-value; SAc – self-acceptance; SAt – self-attachment; IC – internal conflicts; SB – self-blame; SbM – subject-focused motivational orientation; RsM – result-focused motivational orientation; ScM – socially focused motivational orientation; InM – individual-focused motivational orientation; EM – emotional motive; MPI – motive of physical improvement; GM – gloristic motive; * – correlation at the level $p \le .050$; ** – correlation at the level $p \le .010$ and p < .001.

The correlation pleiade of the parameters of self-attitude, the dimensions of motivational orientation, and the relevant motives of juniors' sporting activities is presented in Fig. I. The correlation pleiade complements the tabular data and allows for qualitative presentation of significant correlations established in the research.



Note: —direct correlations at $p \le .050$; —direct correlations at $p \le .010$ and p < .001; —— inverse correlations at $p \le .010$ and p < .001; —— inverse correlations at $p \le .050$.

Fig. I. Correlation pleiade of the parameters of self-attitude, the dimensions of motivational orientation, and the relevant motives of junior athletes' sporting activities (n = 82)

Twenty-five correlations were established (p < .050; p < .010; p < .001), nineteen of them being direct and six being inverse. The most dependent parameter of juniors' self-attitude is the parameter "self-acceptance" (SAc) with six correlations: SbM (R = 322; p < .001); RsM (R = 312; p < .001); ScM (R = 301; p < .001); PrM (R = 332; p < .001); MPI (R = 157; p = .026) and GM (R = 330; p < .001). The most dependent parameter of motivational orientation is "result-focused motivational orientation" (RsM) with seven correlations: IH (R = 161; p = .025); SC (R = -178; p = .039); SM (R = 311; p < .001); SAc (R = 312; p < .001); SAt (R = -178; p = .039); IC (R = 161; p = .025) and SB (R = -178; p = .039). The relevant motives of juniors' sporting activities demonstrated a relatively uniform load with significant correlations – two or three for each.

In the context of our study, the two most dependent parameters with the largest number of correlations are of special scientific interest: self-acceptance (SAc) – six correlations, and result-focused motivational orientation (RsM) – seven correlations. Using the median (Me = 9.00), the respondents were divided into two groups by the parameter "self-acceptance": Group 1 (n = 38; 46.34%) – high level of the formedness, and Group 2 (n = 46; 53.66%) – low levels. The Mann-Whitney U-test was used for comparison (Tabl. 4).

Table 4. Comparison of a high level of self-acceptance (Group 1) with a low level (Group 2)

Mann-Whitney (U)	Parameters of motivation								
	SbM	RsM	ScM	InM	EM	MPI	GM		
U	1431.00	1715.00	1645.00	1387.50	1796.50	1895.00	1933.00		
p	<.001	.042	.027	<.001	.096	.243	.379		

Note: U – statistical parameter of Mann-Whitney; p – nominal value; SbM – subject-focused motivational orientation; RsM – result-focused motivational orientation; ScM – socially focused motivational orientation; InM – individual-focused motivational orientation; EM – emotional motive; MPI – motive of physical improvement; GM – gloristic motive; level of significance given in **bold type** – $p \le .010$ and $p \le .001$; level of significance given in *italics type* – $p \le .050$.

Expectedly, Group 1 with high indicators of self-attitude had significant superiority over Group 2 in four parameters of motivational orientation: SbM (U = 1431.00; p < .001); RsM (U = 1715.00; p = .042); ScM (U = 1645.00; p = .027); InM (U = 1387.50; p < .001). No significant superiority was recorded in Group 2. Then, using the median (Me = 7.50), the respondents were divided into two groups by the parameter "result-focused motivational orientation": Group 3 (n = 35; 46.34%) – high levels of the formedness and Group 4 (n = 49; 53.66%) – low levels. The data were compared using the Mann-Whitney U-test (Tabl. 5).

Table 5. Comparison of a high level of result-focused motivational orientation (Group 3) with a low level (Group 4)

Mann-Whitney (U)	Parameters of self-attitude								
	IH	SC	SM	LS	SV	SAc	SAt	IC	SB
U	1912.00	1928.00	1656.50	1962.00	1988.00	1448.00	1899.00	1796.50	1502.00
p	.356	.378	.031	.395	.423	<.001	.245	.096	<.001

Note: U – statistical parameter of Mann-Whitney; p – nominal value; IH – internal honesty; SC – self-confidence; SM – self-management; LS – looking-glass "Self"; SV – self-value; SAc – self-acceptance; SAt– self-attachment; IC – internal conflicts; SB – self-blame; level of significance given in **bold type** – $p \le .010$ and $p \le .001$; level of significance given in *italics type* – $p \le .050$.

We can see that Group 3 with high indicators of result-focused motivational orientation has significant superiority over Group 4 in the following parameters of self-attitude: SM (U = 1656.50; p = .031) and SAc (U = 1448.00; p < .001). The only significant superiority in SB (U = 1502.00; p < .001) was recorded in Group 4.

Discussion

A considerable number of sports studies related to junior athletes' sports achievements were analyzed. We argue that junior athletes' motivation remains a topical sports issue of the present (Diachenko & Tyshchenko, 2023; Popovych et al., 2022a). There are empirical studies examining the phenomena related to self-attitude such as self-esteem (Demirel, 2019; Petisco-Rodríguez et al., 2020). Despite its significance for juniors, the phenomenon of self-attitude has not been studied thoroughly yet. Our empirical research demonstrates interesting scientific facts which should not be ignored.

Descriptive frequency characteristics of the sample (see Tabl. 1 and Tabl. 2) confirm that the empirical dimensions are in the range of data obtained by other researchers in sports studies (Shandruk & Hakh, 2022; Tavrovetska et al., 2023). The correlation matrix (see Tabl. 3) and the correlation pleiade (see Fig. I) confirmed close interrelationships between the researched phenomena. Twenty-five correlations, nineteen being direct and the rest being inverse, indicate that the parameters of self-attitude have close correlations with junior athletes' motivation. It is obvious that correlations only allow for identifying significant relationships and do not allow for finding causal relationships and stating that the phenomena are interdetermined. To establish causal relationships, it is necessary to conduct an experiment with independent and dependent variables. It does not diminish the value of the obtained scientific facts. On the contrary, the predominant number of correlations by the parameter of self-attitude "self-acceptance" (six) gives a reason to clarify that juniors' ability to accept the real Self, even with shortcomings, has the largest number of significant correlations with the parameters of

motivation, the strongest of which is the correlation with individual-focused motivational orientation (R = 332; p < .001). At the same time, the predominant number of correlations by the parameter of motivational orientation "RsM" (seven) is obvious since the resultant component in sports is dominant because all achievements in athletes' educational-training, competitive, and recovery activities are measured and compared. It is noteworthy that such parameters of self-attitude as the looking-glass "Self" (LS) and internal conflicts (IC) are the most sensitive parameters and the ones which pose a latent danger (one correlation in each). It is obvious that for junior athletes, the attitude towards themselves expected from others and increased reflexivity and doubts about their sports abilities are a very painful issue and are partially accompanied by changeable psycho-emotional loads. The research by V. Plokhikh (2023) conducted with a junior sample demonstrates that the work of defense mechanisms limits the respondents' performance. Substitution, compensation, and rationalization as defense mechanisms play an important role for junior athletes allowing them to retain integrity and self-regulation readiness for activity. At the same time, the above defense mechanisms do not contribute to the improvement of sports performance. This research is consistent with some facts established in our study. Such parameters of selfattitude as the "looking-glass "Self", "internal conflicts", and "self-blame" whose values are medium or higher may partially demonstrate a destructive impact taking junior athletes' considerable energy resources. The dynamics and modality of these impacts may have either unpredictable outbursts of sports performance or fatal declines. The research on self-regulatory mental states by L. Prokhorenko (2023) shows the significance of the well-formed self-regulation ability in competitive activity. The facts established in this study are relevant in the context of our research. Comparison of a high level of self-acceptance (Group 1) with a low level (Group 2) (see Tabl. 4) demonstrated significant superiority by all the parameters of juniors' motivational orientation: subjectfocused motivational orientation; result-focused motivational orientation; socially focused motivational orientation; individual-focused motivational orientation (p < .050; p < .010; p < .001). The established scientific fact testifies that self-acceptance is a stable tendency of junior athletes to perceive their personality traits in a certain modality. O. Sannikova and I. Hordiienko (2022) believe that this modality can be observed in acceptance, rejection, and displacement manifested in peculiar emotional, cognitive, and behavioral patterns. Moreover, the ability to tolerate can significantly increase junior athletes' self-acceptance. At the same time, the ability to tolerate requires well-formed self-regulation readiness (Boryshevskyi, 2012). The above characteristics have a favorable impact on the motivational climate in a sports team (Papaioannou et al., 2007), can reduce athletes' fatigue (Shcherbak et al., 2023), and have a positive effect on psychological well-being. Comparison of a high level of result-focused motivational orientation (Group 3) with a low level (Group 4) demonstrated significant superiority by the following parameters of self-attitude: SM (U = 1656.50; p = .031) and SAc (U = 1448.00; p < .001). It indicates that self-management and self-acceptance are extremely important for junior athletes. The only significant superiority of Group 4 by the parameter "self-blame" (U = 1502.00; p < .001) indicates that continuous negative emotions can destroy sports success, even for athletes with high personal achievements. Moderate self-criticism is important when it is constructive and promotes growth.

The hypothesis that psychological content parameters of self-attitude have significant correlations and significant differences by the levels of formedness in the context of junior athletes' motivational orientation is proved. Statistically significant correlations and superiority testify to the importance and scientific novelty of the obtained results. It gives a reason to recommend implementation of the obtained scientific results in the educational-training process of sports schools for children and youth. Additionally, the established scientific facts can be interesting for anyone working with junior athletes.

Conclusions

It was substantiated that research into the phenomenon of self-attitude in the structure of junior athletes' motivational orientation is the study of reflective characteristics of respondents' self-awareness aimed at achieving optimal sports results in training, competitive, and recovery activities.

Twenty-five significant correlations were established (p < .050; p < .010; p < .001), nineteen of them being direct and six being inverse. It was found that "self-acceptance" (SAc) with six correlations and "result-focused motivational orientation" (RsM) with seven correlations are the most loaded parameters of juniors' self-attitude. A high level of self-acceptance (Group 1) was compared with a low level (Group 2) which allowed for identifying superiority by all the parameters of juniors' motivational orientation: subject-focused motivational orientation, result-focused motivational orientation, socially focused motivational orientation, and individual-focused motivational orientation (Group 3) with a low level (Group 4). It was noted that superiority by such parameters of self-attitude as "self-management" (U = 1656.50; p = .031) and "self-acceptance" (U = 1448.00; p < .001) emphasized the importance of self-management and self-acceptance for junior athletes. It was highlighted that continuous negative emotions, even for athletes with high personal achievements, can destroy sports success, which is testified by the only significant superiority of Group 4 (low levels of RsM) by the parameter "self-blame" (U = 1502.00; p < .001).

It was recommended that the obtained scientific results should be implemented in the educational-training process of sports schools for children and youth.

References

- Alekseev, A. V. (2006). Get over yourself! Mental preparation in sports. Rostov on Don: Phoenix.
- Beletska, A. A. (2020). Psychological features of the motivation direction of athletes in team and individual sports. *The Scientific Heritage*, 54(4), 59–63.
- 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
- Boryshevskyi, M. Y. (2012). Personality in the dimensions of self-consciousness. Sumy: Ellada.
- 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., & 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. https://doi.org/10.34142/HSR.2020.07.02.03
- Diachenko, M. V., & Tyshchenko, V. O. (2023). Research of motivation in sports. *Physical Education and Sports*, 3, 75–80. https://doi.org/10.26661/2663-5925-2022-3-10
- Demirel, H. (2019). Social Appearance Anxiety and Rosenberg Self-esteem Scores in Young Physical Disabled Athletes. *Universal Journal of Educational Research*, 7(3), 664–667. https://doi.org/10.13189/ujer.2019.070304
- Fomenko, K. I., & Lukova, S. V. (2021). Diagnostic tools for examining relevant motives of adolescents' sporting activities. *Bulletin of Lviv University. Series: psychological sciences*, 9, 162–170.
- 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. https://doi.org/10.32999/2663-970X/2024-11-18
- 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. 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
- Kolyada, E., & Romanenko V. (2023). Research on junior athletes' motivation for karate classes. *Martial arts*, 2(28), 50–60. https://doi.org/10.15391/ed.2023-2.05
- Koval, O., Fomina, I., Golub, Iu., & 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. https://doi.org/10.32999/2663-970X/2024-11-11
- Kozin, O., Cretu, M., Boychuk, Y., Kozina, Z., Korobeinik, V., & Sirenko, P. (2022). Comparative characteristics of the functional state of future art teachers and other pedagogical specialties students. *Health, Sport, Rehabilitation*, 8(4), 20–31. https://doi.org/10.34142/HSR.2022.08.04.02
- Kozin, O., Kozina, Z., Cretu, M., Boychuk, Y., Pavlović, R., Garmash, I., & Berezhna, Y. (2023). Vegetative regulation of vascular tone and features of the nervous system of pedagogical universities students. Is there a relationship with professional specialization?. *Health, Sport, Rehabilitation*, 9(1), 29–44. https://doi.org/10.34142/HSR.2023.09.01.03
- McDowell, C. P., Gordon, B. R., Andrews, K. L., MacDonncha, C., & Herring, M. P. (2018). Associations of physical activity with anxiety symptoms and status: results from The Irish longitudinal study on ageing. *Epidemiol. Psychiatr. Sci.*, 1, 1–10. DOI: 10.1017/S204579601800001X
- 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. https://ceur-ws.org/Vol-2732/20200823.pdf
- 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
- O'Rourke, D. J., Smith, R. E., Smoll, F. L., & Cumming, S. P. (2014). Relations of Parent- and Coach-Initiated Motivational Climates to Young Athletes' Self-Esteem, Performance Anxiety, and Autonomous Motivation:

- Influential? Applied More Journal Sport Psychology, 26(4),395-408. https://doi.org/10.1080/10413200.2014.907838
- Panteleev, S. R. (1993). Methods of studying self-attitude. Moscow: Smysl.
- Papaioannou, A. G., Milosis, D., Kosmidou, E., & Tsigilis, N. (2007). Motivational Climate and Achievement Goals at the Situational Level of Generality. Journal of Applied Sport Psychology, 19(1), 38-66. https://doi.org/10.1080/10413200601113778
- Petisco-Rodríguez, C., Sánchez-Sánchez, L. C., Fernández-García, R., Sánchez-Sánchez, J., García-Montes, J. M. (2020). Disordered Eating Attitudes, Anxiety, Self-Esteem and Perfectionism in Young Athletes and Non-Athletes. International Journal of Environmental Research and Public Health, 17(18), 6754. https://doi.org/10.3390/ijerph17186754
- 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/KSU2663-970X/2023-9-
- 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). https://www.revistaespacios.com/a19v40n33/19403321.html
- 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., Savchuk O., & Halian, I. (2020). Self-efficacy of future athletes with different levels of psychological safety. Journal of Physical Education and Sport, 20(5),https://doi.org/10.7752/jpes.2020.05370
- 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 14(2), 171–187. Society, https://doi.org/10.15503/jecs2023.2.171.181
- Popovych, I., Hrys, A., Hoian, I., Mamchur, I., Babenko, A., & Fedyk, O. (2022a). 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., 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., Plokhikh, V., Hrys, A., Pavliuk, M., Nosov, P., & Zinchenko, S. (2023c). 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. (2022b). 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., Shevchenko, A., Galvez, L. M., Klenina, K. (2021). Research of the relationship between social desirability and value orientations of adolescents. Revista Notas Históricas y Geográficas, 26, 241-268. https://www.revistanotashistoricasygeograficas.cl/index.php/nhyg/article/view/339
- Popovych, I., Shevchenko, N., Raievska, Ya., Myshchyshyn, M., Hoian, I., Yakovleva, S., & Los, O. (2023e). 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., & 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
- Sannikova, O., & Hordiienko, I. (2022). Psychological resource of tolerance: self-acceptance and its functions. Bulletin of postgraduate education, 9(38), 107–123. https://doi.org/10.32405/2522-9931
- Shala, S., Emini, B., Stankovska, Z., Nikqi, V., Gontarev, S., & Kostovski, Z. (2023). The Relationship of Goal Orientation, Self-Esteem, Situational Motivation and Satisfaction from Sports Among Young Karate Athletes. Sport Science and Health, 24(2), 150–158. https://doi.org/10.7251/SSH2202150S
- Shandruk, S., & Hakh, R. (2022). Relationships between junior athletes' self-evaluation of physical condition and motivation for sporting activities. Bulletin of H. S. Skovoroda KhNPU. Psychology, 67, 172-184. https://doi.org/10.34142/23129387.2022.67.12

- 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
- Smoldovskaya, I. O. (2022). Development and statistical verification of a psychodiagnostic questionnaire of an athlete's motivational orientation. *Physical education and sports training*, 2(40), 85–92.
- Stavytska, S. O. (2013). Socio-psychological problems of personality formation and development in youth. *Pedagogical Psychology*, 1(2), 290–304.
- 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
- Vidic, Z., & Burton, D. (2011). Developing Effective Leaders: Motivational Correlates of Leadership Styles. Journal of Applied Sport Psychology, 23(3), 277–291. https://doi.org/10.1080/10413200.2010.546827
- Voronova, V. I., Kush, O. O., & Kovalchuk, V. I. (2022). Track and field athletes' needs and motives as major components of their personality orientation. *Physical culture, sports and health of the nation, 14*, 127–135.
- Zason Chian, L. K., & John Wang, C. K. (2008). Motivational Profiles of Junior College Athletes: A Cluster Analysis. *Journal of Applied Sport Psychology*, 20(2), 137–156. https://doi.org/10.1080/10413200701805265
- Zinchenko, S., Kobets, V., Tovstokoryi, O., Nosov, P., & Popovych, I. (2023). Intelligent System Control of the Vessel Executive Devices Redundant Structure. *CEUR Workshop Proceedings*, 3403, 582–594. https://ceurws.org/Vol-3403/paper44.pdf
- 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. https://ceur-ws.org/Vol-2805/paper25.pdf
- Zourbanos, N., Haznadar, A., Papaioannou, A., Tzioumakis, Y., Krommidas, C., & Hatzigeorgiadis, A. (2015). The Relationships Between Athletes' Perceptions of Coach-Created Motivational Climate, Self-Talk, and Self-Efficacy in Youth Soccer. *Journal of Applied Sport Psychology*, 28(1), 97–112. https://doi.org/10.1080/10413200.2015.1074630