

Emotional intelligence in the structure of self-control among junior athletes

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Abstract:

The aim of this study is to empirically investigate and theoretically substantiate the role of emotional intelligence (EQ) within the self-control structure of junior athletes. **Methods:** The sample consisted of 184 junior athletes from both team sports (football and handball) and individual sports (track and field, artistic gymnastics, freestyle wrestling, weightlifting, and boxing). These athletes were students at sports schools for children and youth and were part of professional football and handball clubs competing in the national championship. The descriptive frequency characteristics of the respondents' ages are as follows: $M = 16.96$; $SD = \pm 3.37$; $Me = 17.00$. The parameters of emotional intelligence, volitional control, and subjective control were assessed using psycho-diagnostic tools that were valid, reliable, and specifically adapted for sports samples. **Results:** The empirical data followed a normal distribution, allowing the use of Pearson's correlation coefficient (R) to identify fourteen direct correlations and two inverse correlations ($p \leq .050$; $p \leq .010$; $p = .000$). It was found that the most dependent parameter of emotional intelligence was "self-control and self-regulation of emotions", which showed the highest number of correlations (seven) and the strongest associations at significant levels ($p \leq .001$; $p = .000$). The profile of junior athletes' overall self-control enabled a visual comparison of the key dimensions of self-control. It was explained that the technical component, latent mental resources, and psychological literacy give juniors an advantage at the final stage when all the strong and equal athletes have reached the final competitions. There is a caveat that demonstrating a high level of perseverance does not allow respondents to consider others' emotions, i. e. the desire to win at any cost blocks the defense mechanisms of emotional intelligence. This is a dangerous and uncontrolled state that borders on the affective state and can have detrimental consequences for junior athletes. **Discussion and conclusions.** It was substantiated that the research into emotional intelligence in the structure of junior athletes' volitional control is a successful attempt to establish correlations between the parameters of the examined phenomena applying relevant psycho-diagnostic methodologies, sensitive to critical periods in the formation of a junior athlete's personality, the development of worldviews, and age-related patterns of psychophysiological processes. There was a caveat that low values of the parameter "self-control of an athlete's health and disease" can pose a latent danger, especially in team sports, where the absence of key players can have a considerable impact on the tactical organization of the game. It is recommended that the established scientific facts about the dimensions of EQ and the parameters of volitional control be implemented in work with juniors in all learning, training, competitive, and rehabilitative activities. **Keywords:** subjective control, volitional control, self-regulation, mental health, psychological health, emotional awareness, emotion recognition.

Introduction

The development of junior athletes' emotional intelligence and self-control is an integral component of moral-volitional training in the education of athletes. The formation of such qualities as purposefulness, perseverance, persistence, independence, initiative, determination, courage, endurance, and self-control comprise the content of the development of a young individual's character and will (Boryshevsky, 2012). The will is an individual's conscious and purposeful activity related to overcoming obstacles and achieving a desired result; it aims at managing a behavioral act. This act can be referred to as an act of volitional action. Achieving a desired result is accompanied by the understanding of one's emotions, a partner's or opponent's emotions, and the ability to consider emotional states in actual activities. Researchers focus on self-control and self-regulation

of emotions in the development of the emotional-volitional sphere and emotional intelligence (Castro-Sánchez et al., 2019; Zarytska, 2019).

The study by G. Jordalen et al. (2018) finds out that changes in extrinsic motivation explain the depletion of competencies in junior athletes' self-control. Extrinsic motivation can weaken due to inadequate expectations regarding participants in the competitive process (Popovych et al., 2023c). Since uncontrolled types of competencies in motivation and self-control directly correlate with exhaustion, identifying the content elements of this correlation is of scientific interest. Evaluation of the achieved results, the coach's control, and self-control are essential for achieving the aim. There are studies elucidating the role of junior athletes' self-efficacy as a result of working together with the coach (Halian et al., 2023b), the relationship between the coach's qualities and athletes' self-efficacy (Halian et al., 2023a). Extrinsic motivation in the form of social comparison significantly impacts young people's self-efficacy (Zavatska et al., 2024).

Adolescence is accompanied by permanent manifestations of youthful idealism. In turn, youthful idealism is caused by an identity crisis (Erikson, 1963). Our observations of junior athletes' work give reasons for identifying manifestations of categorical judgments in their statements, lack of compromise in decision-making, and high demands on oneself and others (Popovych et al., 2023b). Excessive demands on oneself make junior athletes focus on the resultant component of their learning, training, competitive, and rehabilitative activities. This, in turn, causes poor performance in sporting activities. This causal series can be accompanied by the states of monotony and regression, a plateau, and frequent manifestations of professional burnout in adolescence. Doubtlessly, perseverance and persistence reflect the desire to achieve the goal. Since these volitional qualities are related to the obligatory accomplishment of learning and training tasks, the improvement of physical, technical, and tactical preparation, fulfilling them and adhering to a strict regime are crucial. However, the quality of these tasks is hidden behind the external formal part. As practice shows, concentration on the quality of accomplishing tasks can yield unexpectedly high results in the long run.

The qualitative component requires understanding and managing one's dominant mental states, from tracking them to having optimal management influences. Usually, competitive activities are accompanied by excessive loads and extreme situations of interaction. Under these conditions, athletes return to what they learnt during training. Therefore, an automatized and well-developed skill, tactical-technical action, and game combination can give them a local game advantage. The ability to achieve an optimal state of competitive activities comes to the fore as A. Alekseev (2006) argues in his work. Coping strategies and defense mechanisms can come to the fore in difficult situations of competitive activities (Blikhar et al., 2024; Tavrovetska et al., 2023). Defense mechanisms and destructive coping strategies such as escape, a change of activity, confrontation, and distancing can cancel out the achieved result and have a negative effect on the course of a competition. Therefore, volitional control, through the formation of endurance and self-mastery, allows maintaining the ability to think clearly in the most difficult situations, treat oneself critically, and manage one's actions and feelings both in normal and unfavorable conditions. If a junior athlete can overcome confusion and fear, regulate agitation, and keep themselves and their teammates from doing wrong in difficult situations, a successful outcome of the competition seems to be the most likely scenario.

It was proved that operationalizing emotional intelligence in the motivational structure (Popovych et al., 2023e) is an effective research decision for establishing correlations between two important phenomena. It was found that a high level of the ability to manage one's emotions and high self-motivation correspond to a high level of engagement in performing activities, striving for cohesion, seeking a synergetic contact with supporters and fans. It is evident that the rapid development of juniors' emotional-volitional sphere requires perfect control that would ensure the expected result. In particular, researchers L. Kravchenko and S. Kushniriuk (2020) assign a key role to tests for identifying mental and volitional characteristics of self-control in the structure of metrological control in physical education and sports. Since athletes' ability to cope with one's mental states and endurance in difficult competitive situations when they implement the game strategy gives them a competitive advantage which can ensure a winning outcome and distinguishes a professional athlete from an amateur athlete.

The research into emotional intelligence in the structure of junior athletes' self-control is positioned as a correlation between the parameters of the examined phenomena, established using relevant psycho-diagnostic methodologies, which are sensitive to critical periods in the formation of a junior athlete's personality, the development of worldviews, and age-related patterns of psychophysiological processes. The confirmed or disproved scientific facts can have a competitive advantage in the formation of juniors' EQ for sports subjects in this area.

Hypothesis. Junior athletes' emotional intelligence correlates with the parameters of volitional self-control and subjective control; the levels of the parameters of emotional intelligence will have significant differences in the examined parameters of self-control.

Aim. To empirically investigate and theoretically substantiate the role of emotional intelligence (EQ) within the self-control structure of junior athletes.

Methods

Methodology. The theoretical-methodological foundations of the research into emotional intelligence in the structure of junior athletes' self-control included the concepts of self-regulatory readiness (Boryshevsky, 2012; Prabowo et al., 2024) and psycho-emotional support (Cheban et al., 2020a; 2020b; Chebykin et al., 2024), which allowed us to relevantly choose psychological content parameters, outline athletes' ability to monitor and influence their dominant mental states, in particular, their health status, qualitative and quantitative parameters of their sports development. The classical publications (Goleman, 1995; Hall, 2000; Mayer & Geher, 1996) and modern applied studies (Karpenko, 2020; Sukys et al., 2019) were used as a basis for delving into emotional intelligence. When creating the empirical picture and design of the research, we considered the scientific facts established in the studies on: 1) psychophysiological patterns of sporting activities (Cretu et al., 2021; Galan et al., 2018; Kozin et al., 2022; 2023); 2) methodologies for identifying dominant mental states operationalized in research on sporting activities (Kurova et al., 2023; Popovych et al., 2022d; 2023d) and other human activities (Popovych et al., 2023a); 3) age-related patterns of adolescence (Halian et al., 2024; Popovych et al., 2022a; 2022b); 4) youth health saving technologies (Popovych et al., 2022c; Shcherbak et al., 2023); 5) other studies related to the research subject, which involve modern measurement methods (Plokhikh et al., 2024; Zinchenko et al., 2023), operationalization of the laws of dialectics (Kremen, 2014), modern research on the construction of educational space (Kremen, 2023; Kremen et al., 2022; Topuzov et al., 2022), the role of the subject in the paradigm of digital culture (Dovgyi et al., 2022; Kremen & Ilyin, 2020; 2022).

Participants. The sample consisted of junior athletes aged 15 to 19 ($n = 184$). The respondents included athletes who engage in sports for a long time (since the age of five), regularly participate in international tournaments, have experience of participating in European and World championships. Namely, the sample of team sports included representatives of the Ukrainian Premier Football League and the Ukrainian Football Super League. Individual sports were represented by track and field, artistic gymnastics, freestyle wrestling, weightlifting, and boxing ($n = 92$; 50.00%). Team sports were represented by football and handball players ($n = 92$; 50.00%). Parity was maintained by gender differentiation: the research sample involved the same number of female athletes ($n = 92$; 50.00%) and male athletes ($n = 92$; 50.00%). These athletes were students at sports schools for children and youth and were part of professional football and handball clubs competing in the national championship. The descriptive frequency characteristics of the respondents' ages are as follows: $M = 16.96$; $SD = \pm 3.37$; $Me = 17.00$.

Procedures and Instruments. The parameters of emotional intelligence were determined using the questionnaire "Methodology for Examining Emotional Intelligence Levels" (MEEIL) (Zarytska, 2019). The methodology aims at determining the general level of emotional intelligence using the integral scale of the same name (GLEI) and the main components of EQ using the scales: understanding one's emotions (UOE); self-control and self-regulation of emotions (SSE); recognizing others' emotions (ROE); the ability to use emotions in communication and activity (AUECA). The respondents made their choices using seventy-six statements and the Stapel scale with a range of answers from "almost always" to "never". The statements of the questionnaire were formulated in such a way that the psychological content of each EQ component was determined with high accuracy using the answer key. Cronbach's correlation coefficient (α) was used to determine homogeneity and check the legitimacy of using the empirical data in statistical calculations. The empirical homogeneity index was recorded at a medium level ($\alpha = .781$). Two psycho-diagnostic tools were used to determine the parameters of self-control: the questionnaire "Volitional Self-Control" (VS) by A. Zverkova and E. Eidmana and the methodology "Level of Subjective Control" (LSC) by J. Rotter, which was adapted by the V. M. Bekhterev Research Institute. These two methodologies were adapted to the Ukrainian sample and represented in the study by O. Kokun et al. (2012). The questionnaire "Volitional Self-Control" (Kokun et al., 2012) contains three scales: general volitional self-control (GVS), perseverance (P) and self-mastery (S). The questionnaire contains thirty statements and a direct Stapel scale. The level of volitional self-control is considered to be the degree to which a junior athlete controls their behavior in different situations of sporting activities and everyday life, their ability to manage their actions, mental states and desires consciously. The empirical homogeneity index was recorded at a high level ($\alpha = .936$). The questionnaire "Level of Subjective Control" (Kokun et al., 2012) relevantly complemented the study of the phenomenon of junior athletes' self-control. Internal dimensions of the key areas of junior athletes' activities are considered to be an important content component of self-control. The modified version of the questionnaire tested on the sports sample of juniors by I. Popovych et al. (2024) was applied. An integral scale, the general level of self-control (GLS), and five subscales were used: self-control of an athlete's achievements (SAA), self-control of an athlete's failures (SAF), self-control of an athlete's relationships (SAR), self-control of sporting activities (SSA), and self-control of an athletes' health and disease (SAHD). A seven-point bipolar Likert scale and forty-four statements were used to determine the level of the respondents' self-control in the most important areas of their life. The empirical homogeneity index was recorded at a high level ($\alpha = .876$).

Organization of Research. At the beginning of 2024, we developed the concept of the theoretical-empirical study and outlined the contours of the research strategy. The implemented research strategy was defined as a confirmatory strategy with the elements of comparison of the main parameters. The empirical data were

collected between February 2024 and September 2024. Questionnaires of three methodologies were created in Google Forms. The research was approved by the Scientific and Methodological Councils and Ethics Committees of the higher education institutions where the researchers worked. Additionally, the empirical data collection was agreed with the administrations of sports schools for children and youth and educational-training academies of professional clubs. We selected some relevant stages of sporting activities, which ensured the maintenance of ecological validity. In advance, the organizers took the necessary measures, which contributed to maintaining confidentiality, voluntariness, and awareness of the respondents' participation that ensured the collection of reliable empirical data.

Statistical Analysis. The key statistical operations were performed using the computer application "IBM SPSS Statistics" version 29.0.0.0 (241). The program "MS Excel" was applied to process the initial data obtained from Google Forms and prepare the matrix of empirical data. The figures were presented using the graphic editor "MS Word". The following standard statistical coefficients were applied: Cronbach's alpha (α), the Kolmogorov-Smirnov test (λ), Student's t-test (t), Pearson's correlation coefficient (R), and the Mann-Whitney U-test (U). The levels of $p \leq .050$; $p \leq .010$ and $p < .001$ were considered statistically significant.

Results

The initial results of the processed empirical data were presented through descriptive frequency characteristics. The main measures of the frequency characteristics, which correspond to the normal distribution of the empirical data established using the Kolmogorov-Smirnov test (λ), were used: M – the mean and SD – the squared deviation. The parameter Me (the median) was added since the comparison of the parameters was performed by this characteristic. Tabl. 1 shows the descriptive frequency characteristics according to all the psycho-diagnostic methodologies: "MEEIL" (Zarytska, 2019), "LSC" (J. Rotter, adaptively by the V. M. Bekhterev Research Institute; modified by the I. Popovych et al., 2024) and "VS" (A. Zverkova and E. Eidmana; O. Kokun et al., 2012).

Table 1. The main frequency descriptive characteristics of the examined parameters of junior athletes' emotional intelligence and self-control (n = 184)

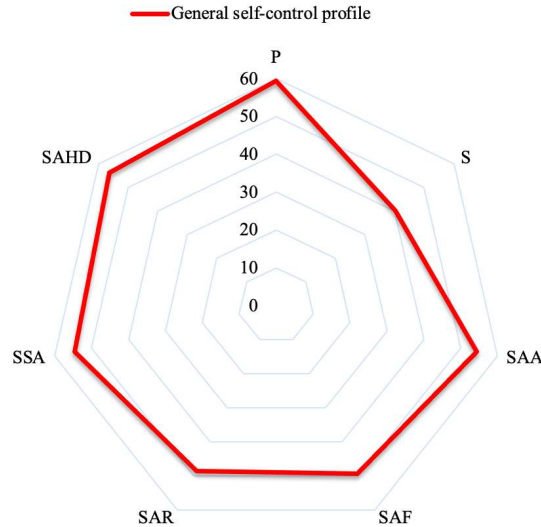
Scale	Mean (M)	Squared deviation (SD)	Median (Me)
"Methodology for Examining Emotional Intelligence Levels" (Zarytska, 2019)			
GLEI	39.85	±6.67	40.00
UOE	40.13	±6.68	40.00
SSE	35.65	±5.94	35.00
ROE	31.06	±5.17	31.00
AUECA	40.38	±6.74	40.50
"Volitional Self-Control" (A. Zverkova and E. Eidmana, given in the study by O. Kokun et al. (2012))			
GVS	17.23	±2.87	5.00
P	13.21	±2.20	6.00
S	7.33	±1.22	5.50
"Level of Subjective Control" (J. Rotter, adaptively by the V. M. Bekhterev Research Institute, modification by Popovych et al., 2022a)			
GLS	195.34	±19.94	195.50
SAA	54.38	±7.59	54.00
SAF	49.26	±7.21	49.00
SAR	40.52	±6.82	40.50
SSA	36.43	±5.28	36.50
SAHD	18.77	±4.09	19.00

Note: GLEI – general level of emotional intelligence; UOE – understanding one's emotions; SSE – self-control and self-regulation of emotions; ROE – recognizing others' emotions; AUECA – the ability to use emotions in communication and activity; GVS – general volitional self-control; P – perseverance; S – self-mastery; GLS – general level of self-control; SAA – self-control of an athlete's achievements; SAF – self-control of an athlete's failures; SAR – self-control of an athlete's relationships; SSA – self-control of sporting activities; SAHD – self-control of an athlete's health and disease.

The obtained empirical data were tested for homogeneity using Cronbach's alpha (α). They demonstrated medium and high levels, which met the requirements for this type of research. The obtained descriptive frequency characteristics were verified with the average norms established during psychometric procedures by the authors of the methodologies and the researchers who adapted, modified, or tested them (Karpenko et al., 2024; Popovych et al., 2022a). The statistical comparison of the obtained data with open data calculated using Student's t-test showed no significant differences at levels of $p \leq .050$ and $p \leq .010$.

The parameters of the respondents' volitional self-control and subjective control allowed creating the profile of junior athletes' general self-control. Since the intervals of the scales differed considerably, the raw scores, determined using the mean (M), were weighed by a single scale. The intervals of the scales are as follows: perseverance 0–16; self-mastery 0–13; self-control of an athlete's achievements 12–84; self-control of an

athlete's failures 12–84; self-control of an athlete's relationships 10–70; self-control of sporting activities 8–56; self-control of an athlete's health and disease 4–28. Integrated and general scales were not used in creating the profile. The general profile should be presented as a petal diagram since high and low values of the parameters have a direct impact on the area outlined by the contour of self-control. The contour of self-control is a line connecting the points of the examined parameters. The area indicates junior athletes' ability to control their actions in extreme situations of competitive activity (Fig. 1).



Note: — the contour of the parameters of general self-control; P – perseverance; S – self-mastery; SAA – self-control of an athlete's achievements; SAF – self-control of an athlete's failures; SAR – self-control of an athlete's relationships; SSA – self-control of sporting activities; SAHD – self-control of an athlete's health and disease.

Figure 1. Petal diagram of the profile of juniors' general self-control

The parameters of the mean distribution had the following values after weighing: P ($M = 59.45$); S ($M = 40.32$); SAA ($M = 54.38$); SAF ($M = 49.26$); SAR ($M = 48.52$); SSA ($M = 54.65$); SAHD ($M = 56.31$). "Perseverance" is the most pronounced parameter, and "self-mastery" is the least pronounced parameter.

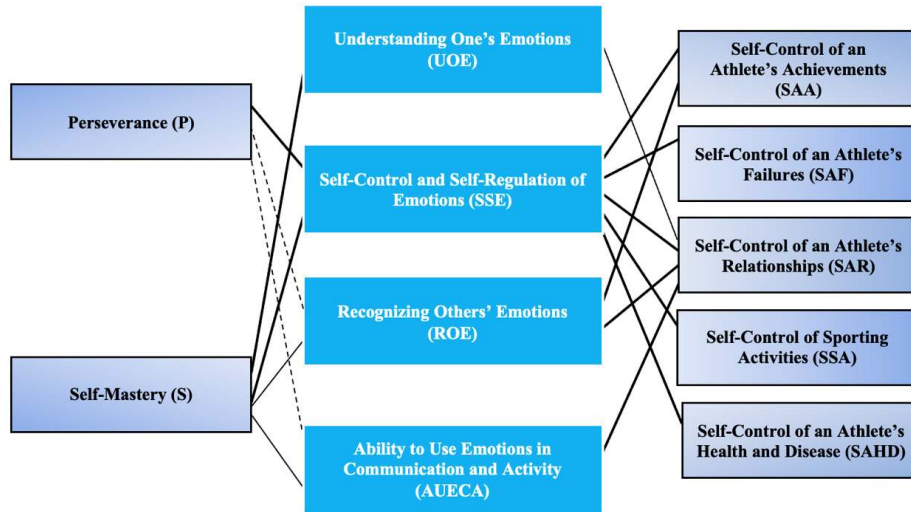
According to the logical scheme of the empirical research and the first hypothesis, it was necessary to establish correlations between the parameters of junior athletes' emotional intelligence and the parameters of volitional self-control and subjective control. Correlations between the parameters of emotional intelligence according to "MEEIL" (Zarytska, 2019) and all the dimensions of junior athletes' self-control presented in the correlation matrix were established using Pearson's correlation coefficient (R) (Tabl. 2). Integrated and general scales were not used in establishing correlations.

Table 2. Correlation matrix of the parameters of junior athletes' emotional intelligence and self-control ($n = 184$)

Scales of the parameters of self-control	Statistical parameter	Scales of the parameters of emotional intelligence			
		UOE	SSE	ROE	AUECA
P	R		.645**	-.227*	-.229*
	p		.000	.043	.040
S	R	.429**	.812**	.235*	.208*
	p	.000	.000	.041	.049
SAA	R		.411**	.323**	
	p		.000	.005	
SAF	R		.423**		
	p		.000		
SAR	R	.235*	.543**	.522**	.571**
	p	.041	.000	.000	.000
SSA	R		.481**		
	p		.000		
SAHD	R		.333**		
	p		.003		

Note: UOE – understanding one's emotions; SSE – self-control and self-regulation of emotions; ROE – recognizing others' emotions; AUECA – the ability to use emotions in communication and activity; P – perseverance; S – self-mastery; SAA – self-control of an athlete's achievements; SAF – self-control of an athlete's failures; SAR – self-control of an athlete's relationships; SSA – self-control of sporting activities; SAHD – self-control of an athlete's health and disease; R – Karl Pearson's correlation coefficient; p – the level of significance; * – $p < .050$; ** – $p < .010$ and $p = .000$.

The correlation pleiade of the parameters of junior athletes' emotional intelligence and self-control was created to qualitatively analyze the established correlations (Fig. II).



Note: — positive correlations at $p \leq .050$; ——— positive correlations at $p \leq .010$ and $p = .000$; - - - negative correlations at $p \leq .050$.

Figure II. The correlation pleiade of the relationships between the parameters of junior athletes' emotional intelligence and self-control ($n = 184$)

Fourteen direct correlations and two inverse correlations were established ($p \leq .050$; $p \leq .010$ and $p = .000$). It was found that "self-control and self-regulation of emotions" is the most dependent parameter of emotional intelligence. It has the largest number of correlations (seven) and the strongest correlations at the level of significance ($p = .000$). The parameters "self-control of sporting activities" and "self-control of an athlete's health and disease" have one significant correlation each. It does not reduce their value but rather indicates that our research sample of junior athletes has no stable culture of self-control in the area of mental and psychological health and self-control of the entire process and outcomes of sporting activities. It was established that the correlations of "self-control and self-regulation of emotions" with "self-mastery" ($R = .812$; $p = .000$) and "perseverance" ($R = .645$; $p = .000$) are the strongest ones. Thus, the first hypothesis is statistically confirmed: junior athletes' emotional intelligence correlates with the parameters of volitional self-control and subjective control.

Since the confirmatory strategy of the research with the elements of comparison involves identifying differences in the levels of the parameters of emotional intelligence, some statistical comparison operations were legitimately performed. The Mann-Whitney U-test was used (U). The parameters of emotional intelligence were divided by the median into: Group 1 and Group 2. Group 1 comprised the respondents with a high level of the parameters of emotional intelligence ($n = 71$; 38.59%), and Group 2 consisted of the respondents with a low level of the parameters of emotional intelligence ($n = 113$; 61.41%). Tabl. 3 shows the results of the comparison of junior athletes' parameters of self-control.

Table 3. The results of the comparison of junior athletes' parameters of self-control in Group 1 and Group 2

Scale	C M-W	Parameters of self-control					SSA	SAHD
		P	S	SAA	SAF	SAR		
UOE	U							
	p							
SSE	U		1088.000**	1423.500*	1701.000*	1038.500**	1443.000**	
	p		<.001	.012	.039	<.001	.014	
ROE	U							
	p							
AUECA	U					1614.500*		
	p					.017		

Note: C M-W – coefficients U-test Mann-Whitney; P – perseverance; S – self-mastery; SAA – self-control of an athlete's achievements; SAF – self-control of an athlete's failures; SAR – self-control of an athlete's relationships; SSA – self-control of sporting activities; SAHD – self-control of an athlete's health and disease; UOE – understanding one's emotions; SSE – self-control and self-regulation of emotions; ROE – recognizing others' emotions; AUECA – the ability to use emotions in communication and activity; U – the value of the Mann-Whitney parameter; p – the level of significance by the Mann-Whitney U-test; * – the level of significance $p \leq .050$ and ** – the level of significance $p \leq .010$ and $p < .001$, the data is given in bold type.

Group 1 has six superiorities in the compared pairs of the parameters of self-control. No superiority was recorded in Group 2. The following parameters have the highest level of statistical significance: “self-control of an athlete’s relationships” ($U = 1038.500, p < .001$) and “self-mastery” ($U = 1088.000, p < .001$). The parameter “self-control of an athlete’s relationships” has superiorities in the two dimensions of emotional intelligence: “self-control and self-regulation of emotions” ($U = 1038.500, p < .001$) and “the ability to use emotions in communication and activity” ($U = 1614.500, p = .017$). There are no significant superiorities of the compared groups in the following parameters of emotional intelligence: “UOE” and “ROE” and such parameters of self-control as “P” and “SAHD”.

Discussion

Our theoretical-empirical research is another attempt to clarify correlations and statistical differences in the examined parameters. The randomly selected sample, maintaining parity by sports and gender, ensured the representativeness of the general population. The normal distribution of the empirical data also contributed to obtaining significant empirical data. Researchers’ interest to the problems of emotional intelligence (Adilogullari et al., 2019; Mohammed, 2021) and self-control (Liang et al., 2020; Moroz et al., 2018) in sports is rising. It is noteworthy that today’s life is characterized by rapid changes in social reality. These changes are determined by geopolitical and socioeconomic processes. Pandemics, military conflicts, and natural disasters cause social transformation processes. Amateur and professional sports, physical culture, promotion of a healthy lifestyle in improving mental and psychological health, in increasing adaptability, stress resistance and resilience, and in enhancing well-being and sustainable development gain a new meaning in the context of today’s social uncertainty (Popovych et al., 2023f).

Sports achievements and advanced technologies for teaching and training junior athletes have always attracted the attention of researchers in sports studies. The views of C. Bishop (2013), based on Erik Erikson’s (1963) psychosocial development model, give reasons for considering identity formation in the context of discrete and social factors. Our attempt to identify the parameters of self-control in the sample population is of interest because this age stage is accompanied by an identity crisis. The descriptive frequency characteristics allowed (see Tabl. 1) determining a high level of “perseverance” and significantly lower values in the parameter “self-mastery”. High levels of perseverance are inherent in juniors who are dynamic, hardworking, and active in achieving their objectives. They are mobilized by obstacles on the way to attain the goal. However, these athletes are often distracted by temptations and loss of flexibility. In this context, the development of emotional intelligence can become a pillar of stability in sporting activities. The proposed profile of juniors’ general self-control (see Fig. 1) shows that the lowest parameters of “self-mastery” have a considerable impact on the general ability to control oneself. It is evident that extreme situations of competitive activity indicate the formation and development of a junior athlete’s self-mastery. Self-mastery reflects the level of arbitrary control of emotional reactions and states.

Analysis of correlations allows identifying interdependencies between the examined parameters. The parameters that are the most dependent ones in the correlation matrix are of scientific value. Self-control and self-regulation of emotions is the most loaded dimension of emotional intelligence since it has the strongest correlations and the largest number of them – seven. All the examined parameters have significant correlations. It should be highlighted that “self-control of sporting activities” and “self-control of an athlete’s health and disease” have one significant correlation each. This may indicate the following. When it comes to the ability to control oneself in sporting activities, the strategy and vision of one’s career in sports have not been developed at this stage yet. Regarding “self-control of an athlete’s health and disease”, junior athletes do not think about their health. At the initial stages of competitions, anthropometric indicators and quick recovery from psycho-emotional loads or minor physical injuries give athletes a competitive advantage over their competitors. The technical component, latent mental resources, and psychological literacy give them an advantage at the final stages, when all the strong and equal athletes have reached the final competitions. It is noteworthy that low values of the parameter “self-control of an athlete’s health and disease” can pose a latent danger, especially in team sports, where the absence of the key players may have a considerable impact on the game tactics. We should pay attention to the two inverse correlations of “perseverance” with the parameters “recognizing others’ emotions” ($R = -.227; p = .043$) and “the ability to use emotions in communication and activity” ($R = -.229; p = .040$). It is evident that the demonstration of a high level of perseverance does not allow athletes to consider others’ emotions, i.e., the desire to win at any cost blocks the defense mechanisms of emotional intelligence. This is a dangerous uncontrolled state that borders on the affective state. Sometimes, it can work and ensure an extremely important result in competitions. However, it often ends up in a fiasco or injury. High values of perseverance should be accompanied by a high level of self-mastery, which is ensured by the permanent development of emotional intelligence and very pronounced self-regulatory behavior.

A comparison of the parameters of self-control identified using the key dimensions of emotional intelligence allowed the superiority of Group 1 to be recorded. The superiority is very pronounced in the parameter “self-control of an athlete’s relationships”, which was recorded in the two dimensions of emotional intelligence, “self-control and self-regulation of emotions” and “ability to use emotions in communication and activity”. This

indicates that junior athletes' efficacy should be tracked in two dimensions: subject activity and interpersonal communication. In this context, the study of I. Halian et al. (2023a) is consistent with our research. The obtained results allowed us to confirm the second hypothesis that the levels of the parameters of emotional intelligence have significant differences in the examined parameters of self-control. The established scientific facts are of value to all subjects in juniors' sports. It is recommended that the findings of the research into the dimensions of EQ and the parameters of volitional self-control be implemented in the work with juniors at sports schools for children and youth and academies of professional clubs in learning, training, competitive, and rehabilitative activities.

Conclusions

It was empirically studied and theoretically substantiated that the research into emotional intelligence in the structure of junior athletes' volitional control is a successful attempt to establish correlations between the parameters of the examined phenomena, using relevant psycho-diagnostic methodologies, which are sensitive to critical periods in the formation of a junior athlete's personality, the development of worldviews, and age-related patterns of psychophysiological process. Pearson's correlation coefficient (R) was used to determine that "self-control and self-regulation of emotions" is the most loaded dimension of emotional intelligence since it has seven significant correlations. The profile of junior athletes' self-control allowed the comparison of the key dimensions of self-control to be visualized. The area of the profile testifies to junior athletes' ability to control their actions in extreme situations of competitive activity. It was noted that anthropometric indicators and quick recovery from psycho-emotional loads or minor injuries give junior athletes a competitive advantage over their rivals at the initial stages of competitions. It was explained that the technical component, latent mental resources, and psychological literacy give a competitive advantage at the final stage when all the strong and equal athletes have reached the final competitions. There is a caveat that demonstrating a high level of perseverance does not allow respondents to consider others' emotions, i. e. the desire to win at any cost blocks the defense mechanisms of emotional intelligence. This dangerous uncontrolled state borders on the affective state and can have detrimental consequences for junior athletes.

The research aim was achieved, and both hypotheses were confirmed. The established scientific facts are of value to all subjects in junior sports and can be implemented in learning, training, competitive, and rehabilitative activities.

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