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Original Article

Re-adaptation of junior athletes to competitive activity after a forced break

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Abstract:
This study **aims** to perform a theoretical and empirical analysis to identify psychological factors, establish key correlations, and determine the differences in junior athletes' re-adaptation to competitive activity after a forced break. **Methods:** The research involved 36 junior athletes from both individual and team sports, representing sports schools for children and youth – "LSSCY Enerhetyk" (Lviv, Ukraine), "SSSYOR №1" (Ivano-Frankivsk, Ukraine), and junior academies of professional football and handball clubs from Kherson and Mykolaiv. A forced break in competitive activity was the primary criterion for participant selection. Valid and reliable psycho-diagnostic tools, previously tested in sports studies, were employed. **Results:** No statistically significant differences were observed in the re-adaptive capacity parameters across the examined junior samples. An algorithm for creating a profile to assess junior athletes' ability to re-adapt is proposed. It considerably simplifies the management of recovery process and is capable of increasing the accuracy of planning competitive activities. It was established that the following parameters are the most dependent parameters of re-adaptation (three correlations for each): "adaptability", "acceptance of others" and "internality". The most dependent coping strategies (five correlations for each) are as follows: "problem-solving planning" and "escape–avoidance". It was explained that the strongest direct correlation of "internality" with the coping strategy "problem-solving planning" ($rs = .549$; $p < .001$) testifies that the efforts made by the re-adapting individual have the greatest re-adapting effect. It was found that the opposite effect is in the correlation between "emotional comfort" and the coping strategy "escape–avoidance" ($rs = -.525$; $p = .001$) which is the most undesirable combination at the stage of re-adaptation. **Discussion and conclusions.** It was substantiated that juniors' re-adaptation to competitive activity after a forced break is the return of athletes to active training and competitive processes in order to resume a sporting career. It was noted that the comparison of two groups with low and high levels of the parameters of re-adaptation confirmed that adaptive capacity and internal orientation towards problem-solving is the most effective combination of juniors' competences at the stage of re-adaptation to competitive activity after a forced break. It was summarized that re-adaptation is an important scientific problem in research into sporting activities which requires empirical study and implementation of effective practices in sporting activities.
Key words: stressogenic factors, mental health, social representations, competition, self-actualization, identity, self-acceptance.

Introduction

Dynamic fleeting changes sweeping today's world, on the one hand, open up new opportunities in competitive mobility for athletes, and, on the other hand, require high adaptive capacity from athletes. Since re-adaptation is one of the forms and types of adaptation under special conditions by its content features, we should look at the fundamentals of adaptation in the context of sporting activities. Athletes' adaptation is considered interdependent processes of accommodation and assimilation which ensure active adjustment of subjects of sporting activities to the conditions of learning and training, competitive and rehabilitative work. Accommodating impacts of adaptive process ensure passive adjustment. Assimilating impacts are an active component of this process. Accommodating and assimilating impacts are in organic unity. We should consider the fundamentals of the process of athletes' adaptation in the context of scientific psychological schools. S. Freud (1977) interprets the process of adaptation in his psychoanalytical concept using the formula "conflict – anxiety – defense mechanisms". In his opinion, the athlete's personality displaces cravings and focuses on

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valuable objects of sanctioned by society. The representative of humanistic psychology C. Rogers (1995) describes the process of adaptation using the formula "conflict – frustration – act of adjustment". The main criterion of an athlete's adaptability is the degree of their integration in competitive and educational-training processes. In the humanistic paradigm, the central place is given to the healthy personality of an athlete who is self-actualizing (Maslow, 1954) and strives to achieve acme in their sporting career. In cognitive psychology, the process of adaptation is described with the formula "conflict – threat – reaction of adjustment". As interpreted by J. Piaget (2001), adaptation provides an athlete with a balance between the impact of the body on the environment and the reciprocal impact of the environment on the athlete's body. We can see that there is a common component in this formula – "conflict". It testifies that it is conflict that brings the mechanism of adaptation into effect.

In modern society, social-psychological adaptation of athletes is becoming increasing important. It combines their high social status and psychological satisfaction, primarily with themselves and their achievements. Success of adaptation depends on social values and an individual's characteristics (Halian, 2024; Kobets et al., 2021). If individuals find themselves in a new group with value orientations and meanings which are different from those of their usual environment, they face the issue of re-adaptation. Re-adaptation is a component of social-psychological adaptation of an individual. An athlete's re-adaptation is a repeated adaptation to sporting activities, caused by a forced break, isolation, trauma or the effect of other factors, in which a value component and new meanings become dominant. Studies on athletes' re-adaptation confirm that adaptation to new conditions of the environment is accompanied by revaluation and partial or complete rejection of some adaptive mechanisms, conventional behavioral complexes and coping strategies used by an athlete before (Naenko, 1976: 137). Studies convincingly demonstrate that a value-meaning component is dominant in the mental states of athletes who win (Kurova et al., 2023; Popovych et al., 2022e; 2023c), are at the stage of self-actualization (Prokhorenko et al., 2023), and dare to take risks for winning (Tavrovetska et al., 2023). Studies on other areas of activity also highlight a dominant advantage of a value-meaning component in extreme situations (Zinchenko et al., 2023), during the ongoing Covid-19 pandemic, in daily (Popovych et al., 2022b) and changed conditions of professional activity (Blynova et al., 2022a; Popovych et al., 2023a).

A number of studies position re-adaptation as a stage of rehabilitation at which psycho-social methods of influence, stimulation of athletes' social activeness and special training work with a psycho-therapeutic focus dominate (Staude et al., 2023a; 2023b; 2024). Researchers S. Lazorenko et al. (2020) consider re-adaptation to be restoration of adjustments to certain conditions of sporting activities which are temporarily lost due to de-adaptation. Restoration is regarded as re-acquisition of the lost structural and functional parameters. Therefore, re-adaptation is usually considered to be a stage of rehabilitation aimed at restoring functional systems of an athlete's body after training, sports competitions and traumas, in order to achieve high sports results and stay in optimal sports shape (Lazorenko et al., 2020). Researchers K. Sakharova and N. Lipovska (2021) elucidate the system of re-adaptation in difficult situations as a complementary chain of emergency social assistance, and psychological support for sufferers. Researchers A. Ben Belgith et al. (2012) proposed quantitative training load according to the scheme "work – endurance – recovery" as part of sports rehabilitation of professional footballers. This scheme was implemented over the rehabilitation period which combined exercises for strengthening muscles, the locomotor system and individual ball exercises. The proposed method optimized the work load and intensity at different stages of rehabilitation (Ben Belgith et al., 2012). The research by E. Laboute et al. (2011) identifies differences in using rehabilitation methods in treating such a complex trauma as a rupture of an athlete's cruciate ligament. There were differences in subjective perception, while there were no differences in objective perception. In the scientific literature there are successful attempts to study the state of the researched problem by means of neuro-readaptation and outline the ways to apply it (Muñoz-Llerena et al., 2017). Analysis of the above studies focuses on content features of re-adaptation, methods, techniques and technologies for implementation. A psychological component of this important problem remains completely unexplored. A number of studies convincingly demonstrate that athletes' time decentrations affect all components of sporting activities: learning and training (Popovych et al., 2022a), competitive (Popovych et al., 2023b) and rehabilitative (Plokhikh et al., 2024), and also have an impact on content parameters of the leading human activities. The effectiveness of re-adaptation will depend on the focus of attention, thoughts and efforts of the re-adapting individual on the positive future or the experience of terrible situations of the past which caused negative consequences. In particular, in the work by V. Hryban et al. (2019), re-adaptation is regarded as a negative phenomenon of the organization of a training process which should be avoided when working with athletes. It was explained that unidirectional cyclic loads cause fatigue and disruption of a training process which can lead to re-adaptation, de-adaptation and over-adaptation. In the context of professional sports, junior sports occupy an important place. It is noteworthy that frequency and cyclicality of the above phenomena are excessively high (Hryban et al., 2019). Researchers I. Halian et al. (2023a; 2023b) showed dependence of junior athletes' self-efficacy on their individual-typological characteristics and the trainer's qualities. Cooperation can be the key to progress, however, sometimes it can cause stagnation and regression.

Juniors' re-adaptation to competitive activity after a forced break is considered to be the return of athletes to active training and competitive processes aimed at resuming a sporting career. A forced break could be caused

by severe injuries, long-term rehabilitation procedures, life shocks, pregnancy, a loss of family members, revaluation of life priorities, hostilities, captivity, disasters and other insurmountable problems which prevented them from full-fledged training and participation in competitions.

Hypothesis. We assume that: 1) there is a correlation of constructive and destructive coping strategies with the parameters of the research participants' adaptive resource; 2) juniors with high levels of the parameters of re-adaptation will have an advantage over athletes with low levels of these parameters.

Aim. To conduct theoretical-empirical research, find out psychological content parameters, establish significant correlations and identify differences of junior athletes' re-adaptation to competitive activity after a forced break.

Methods

Methodology. Since re-adaptation in competitive activity is partly determined by a forced break related to the consequences of injury treatment, a change in a psycho-physiological state with a subsequent rehabilitation component, it was methodologically substantiated that the dominant mental states are complex stressful states of re-adapting individuals. Therefore, the theoretical-empirical research into juniors' re-adaptation was reasonably based on the fundamentals of adaptation concepts (Shcherbak et al., 2023). The results of the research into psycho-physiological patterns of juniors' competitive activity (Cretu et al., 2021; Kozina et al., 2018; Kozin et al., 2022), the studies on new psychological formations of adolescents and the publications outlining the current social transformations (Hoian et al., 2024) were also taken into consideration. Special attention was paid to the empirical studies contributing to creation of positive scenarios (Popovych et al., 2022c), constructive expectations (Hrys et al., 2024), construction of the model of the expected future.

Participants. The research participants are juniors systematically engaging in individual and team sports (n = 36). Team sports were represented by handball and football players (n = 18; 50.00%). Athletes engaging in track and field, weightlifting, gymnastics, freestyle wrestling and boxing represented individual sports (n = 18; 50.00%). The sample comprised junior female athletes (n = 15; 41.67%) and male athletes (n = 21; 58.33%). The respondents were representatives of the sports schools for children and youth: "LSSCY Enerhetyk" (Lviv, Ukraine) and "SSSYOR №1" (Ivano-Frankivsk, Ukraine) and junior academies of professional handball and football clubs from the cities of Kherson and Mykolaiv. A forced break in competitive activity was an important criterion for selecting the sample. The reasons for a forced break were as follows: 1) severe injury (the period of rehabilitation lasting more than six months) (n = 15; 41.67%); 2) hostilities, long-term stay in the occupied territory (n = 15; 41.67%); 3) pregnancy (n = 6; 16.66%). The descriptive frequency characteristics of the sample are as follows: M = 17.69; SD = ± 1.86.

Procedures and instruments. Psychological content parameters of re-adaptation were found using valid and reliable psycho-diagnostic tools. The basic psycho-diagnostic tool is the questionnaire "Socio-Psychological Adaptation" (SPA) created by C. Rogers and R. Dymond (1954). The version of the questionnaire adapted by researchers O. Kovalenko and V. Kovalenko (2019) was applied. The questionnaire contains one hundred and one statements. Responses are rated using a seven-point Stapel scale. Seven parameters were found using the questionnaire: adaptability (A), self-acceptance (SA), acceptance of others (AO), emotional comfort (EC), internality (I), desire for dominance (DD) and escapism (E). The questionnaire "Perceived Stress Scale" (PSS-10) created by researchers S. Cohen, T. Kamarck and R. Mermelstein (1983) was used to identify subjective evaluation of stress experienced within a month. The cognitive mediational theory of stress by R. Lazarus (1985) was the theoretical basis of the questionnaire. The advantage of "PSS-10" lies in the fact that this method captures subjective evaluation of the impact of stress. The questionnaire consisted of ten statements. Respondents rated the statements using a five-point scale. The total score showed the level of stress experienced within a month. The version of the questionnaire adapted by researchers O. Veldbrekht and N. Tavrovetska (2022) was applied. The final instrument which logically combined the researched variables into a relevant construct that met the requirements for re-adaptation was the questionnaire "Way of Coping Questionare" ("WCQ") (Lazarus & Folkman, 1984). The version of the method adapted by researchers T. Kriukova and Y. Kuftiak (2007) was used. Eight coping strategies as ways of handling stressful situations were identified. This method has five constructive strategies: self-control, search for social support, taking responsibility, problem-solving planning and positive revaluation, and three destructive strategies: confrontation, distancing and escape–avoidance. The statistical parameter of homogeneity of the responses by all the psycho-diagnostic tools was found. The obtained values of Cronbach's (α) coefficient were in the range of values .743 – 937.

Organization of Research. A summative research strategy was used. The research participants were divided into two groups by the obtained parameters of re-adaptation – with high and low levels of intensity of each parameter. In 2023, the empirical data of the respondents who met the research requirements were collected. Confidentiality of the respondents' personal data was maintained. They were informed about voluntariness of participation and the possibility to withdraw from participation in the research at any time. The Ethical Committee of higher education institutions approved the research. Participation of all the respondents was agreed with administrations of the sports schools for children and youth and junior academies of professional clubs.

Statistical Analysis. All the statistical operations were performed using "IBM SPSS Statistics" version 29.0.0.0 (241) and "MS Excel". In order to visualize the researched parameters, a profile of juniors' capacity for re-adaptation was created using the graphical editor "MS Word". Standard statistical parameters were used for statistical significance. The levels of p≤.050, p≤.010 and p≤.001 were considered to be significant.

Results

According to the plan of the summative research strategy, descriptive frequency characteristics were found by all the parameters of the applied psycho-diagnostic tools: "SPA" (Rogers & Dymond, 1954; adaptation by O. Kovalenko and V. Kovalenko, 2019); "PSS-10" (Cohen et al., 1983; adaptation by O. Veldbrekht and N. Tavrovetska, 2022); "WCQ" (Lazarus & Folkman, 1984; adaptation by T. Kriukova and Y. Kuftiak, 2007).

Tabl. 1 presents the main frequency measurements: the mean (M), the squared deviation (SD) and the median (Me) which allow replicating the research if necessary, and also the measurements used in the subsequent research operations.

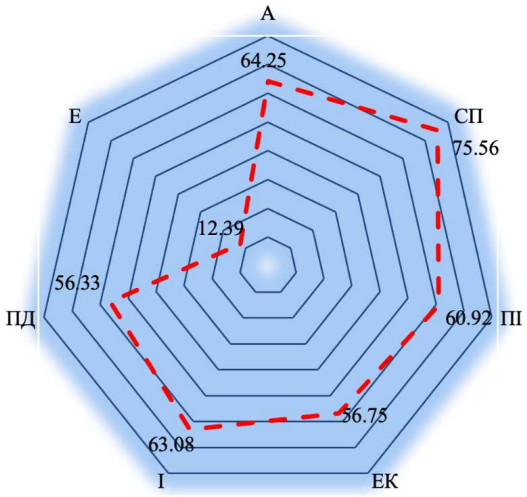
Table 1. Frequency characteristics of the researched parameters of juniors' re-adaptation (n = 36)

Scale	Median (M)	Squared deviation (SD)	Median (Me)
"SPA" (Rogers & Dymond, 1954; adaptation by O. Kovalenko and V. Kovalenko, 2019)			
Adaptability (A)	64.25	±13.402	62.50
Self-acceptance (SA)	75.56	±12.646	76.00
Acceptance of others (AO)	60.92	±16.804	62.50
Emotional comfort (EC)	56.75	±20.194	54.00
Internality (I)	63.08	±14.864	59.50
Desire for dominance (DD)	56.33	±14.562	55.50
Escapism (E)	12.39	±5.572	12.50
"PSS-10" (Cohen et al., 1983; adaptation by O. Veldbrekht and N. Tavrovetska, 2022)			
Self-evaluation of the experienced stress (SES)	22.03	±5.124	21.00
"WCQ" (Lazarus & Folkman, 1984; adaptation by T. Kriukova and Y. Kuftiak, 2007)			
Self-control (CK)	12.75	±3.426	12.50
Search for social support (SSS)	10.78	±3.555	11.00
Taking responsibility (TR)	7.31	±2.505	7.00
Problem-solving planning (PSP)	12.42	±3.451	13.00
Positive revaluation (PR)	12.64	±4.317	13.00
Confrontation (C)	9.28	±2.603	9.00
Distancing (D)	8.81	±2.573	8.00
Escape–Avoidance (E-A)	13.25	±4.305	14.00

Comparison of the data of the mean distribution (M) with the samples which fully (juniors', sports, requirements of the empirical cross-section) or partially matched by one of these criteria were performed using Student's t-test. Comparison of constructive and destructive coping strategies of the juniors with the respondents in the research by I. Popovych et al. (2023a) allowed identifying no statistically significant differences. Comparison of the parameter "self-evaluation of the experienced stress" (SES) with the recommended norms differentiated by gender showed no differences with the male sample and statistically significant differences at the level of (p≤.050) with the female sample.

No differences were recorded in the comparison with the averaged data. Comparison of the parameters with the average norms proposed by researcher (Kovalenko & Kovalenko, 2019) using "SPA" (Rogers & Dymond, 1954) showed no differences. These comparisons allow stating that the descriptive frequency characteristics of the sample which was randomly selected represent a reliable empirical dataset.

The work with the empirical data by the method "SPA" (Rogers & Dymond, 1954; adaptation by O. Kovalenko and V. Kovalenko, 2019) allowed operationalizing the data and creating the profile of juniors' capacity for re-adaptation. Fig. I graphically visualizes the profile of juniors' capacity for re-adaptation.



Note: ------- contour of the capacity for re-adaptation; A – adaptability; SA – self-acceptance; AO – acceptance of others; EC – emotional comfort; I – internality; DD – desire for dominance; E – escapism.
Figure I. Profile of juniors' capacity for re-adaptation

The proposed operationalization of the parameters of re-adaptation in the form of a profile is an efficient instrument for measuring the re-adapting individual's potential. The area created by the connection of the red dashed line of points denoting the measurements of the parameters of re-adaptation is a quantitative manifestation of an athlete's capacity for re-adaptation. Fig. I presents the profile version created by the average data of the descriptive characteristics of the sample. Personal profiles are of scientific value in the context of analyzing the parameters of re-adaptation. Personal profiles should be created at the initial stage of re-adaptation. One or two measurements taken over the re-adaptation period are optimal. It is important for managing the process of re-adaptation. Fig. I shows that six parameters are within the mean distribution (M) from 56.33 to 75.56, and one measurement – escapism – has much lower values (M = 12.39). It can be explained by the fact that raw scores are taken into account. It is important that identical measurements should be used in creating profiles, for example: raw scores, T-scores or weighing.

Spearman correlation coefficients (r_s) was used to establish significant correlations of the parameters of re-adaptation with the researched variables. Spearman correlation coefficients (r_s) was preferred since the distribution of the empirical data is heterogeneous. Tabl. 2 presents the correlation matrix of the juniors' parameters of re-adaptation.

Table 2. Correlation matrix of the parameters of re-adaptation and the researched variables (n = 36)

Scale	Statistical parameter	Researched variables								
		SC	**SSS**	**TR**	**PSP**	**PR**	**C**	**D**	**E–A**	**SES**
A	r_s	-.403*	.097	-.310	.402*	.201	.082	-.153	-.468**	-.144
	p	.015	.572	.066	.015	.240	.633	.373	.004	.404
SA	r_s	-.316	.125	-.314	.344*	.180	.143	-.150	-.524**	-.107
	p	.060	.467	.062	.040	.293	.406	.382	.001	.536
AO	r_s	-.402*	.216	-.299	.370*	.145	.072	.036	-.390*	-.166
	p	.015	.205	.077	.026	.400	.677	.834	.019	.334
EC	r_s	-.441**	.032	-.280	.239	.123	.003	-.220	-.525**	-.228
	p	.007	.852	.098	.161	.475	.987	.197	.001	.182
I	r_s	-.301	-.013	-.417*	.549**	.095	.129	-.070	-.330*	-.090
	p	.075	.939	.011	<.001	.583	.454	.687	.049	.601
DD	r_s	-.298	.118	-.120	.438**	.327	.234	-.125	-.288	.031
	p	.078	.495	.484	.008	.052	.169	.469	.088	.858
E	r_s	.234	.012	.285	-.137	-.009	.372*	.087	.309	.095
	p	.170	.942	.092	.427	.959	.025	.613	.067	.582

Note: A – adaptability; SA – self-acceptance; AO – acceptance of others; EC – emotional comfort; I – internality; DD – desire for dominance; E – escapism; r_s – correlation measurement; p – level of significance; SC – self-control; SSS – search for social support; TR – taking responsibility; PSP – problem-solving planning; PR – positive revaluation; C – confrontation; D – distancing; E–A – escape–avoidance; SES – self-evaluation of the experienced stress; * – p<.050; ** – p<.010.

Fifteen statistically significant correlations were established, six of them being at the level of significance p = .010 and p<.001 and nine correlations being at the level p = .050. A direct correlation was established in six researched pairs, and an inverse correlation was established in nine pairs. It is noteworthy that all the correlations of the parameters of re-adaptation with the coping strategy "problem-solving planning" (five pairs) are direct. The only direct correlation was established between "escapism" with the coping strategy "confrontation" (r_s = .372; p = .025). The correlation of "internality" with "problem-solving planning" is the strongest direct correlation (r_s = .549; p <.001). The correlation between "emotional comfort" and "escape–avoidance"is the strongest inverse correlation (r_s = -.525; p = .001).

According to the summative research strategy, the sample was divided into two groups by all the parameters of re-adaptation: Group 1 – low levels of the researched parameter and Group 2 – high levels of the researched parameter. The median (Me) was used as the basis for the distribution (see Tabl. 1). The statistical parameter – coefficients (U) Mann-Whitney – was applied. Tabl. 3 gives the seven comparisons by the parameters of re-adaptation.

Table 3. Differences between Group 1 and Group 2 by the levels of the parameters of re-adaptation

Scale	Statistical parameter	Researched variables								
		SC	**SSS**	**TR**	**PSP**	**PR**	**C**	**D**	**E–A**	**SES**
A	U	**77.500**	146.500	*98.500*	135.000	159.500	143.500	*98.500*	**77.500**	115.000
	p	.008	.665	.047	.424	.987	.596	.048	.008	.150
SA	U	106.500	159.000	103.000	147.500	159.000	140.000	124.500	**61.000**	125.000
	p	.078	.924	.059	.645	.924	.483	.230	.001	.240
AO	U	*90.500*	134.500	107.500	*87.000*	138.000	160.500	156.500	127.500	140.000
	p	.023	.381	.081	.017	.446	.962	.860	.273	.485
EC	U	154.500	**73.000**	123.500	151.500	124.500	125.000	158.000	161.000	134.500
	p	.824	.005	.222	.750	.239	.244	.911	.987	.390
I	U	*94.500*	157.000	*96.000*	*96.000*	144.000	154.500	136.000	*91.000*	126.000
	p	.033	.886	.035	.037	.578	.823	.414	.025	.259
DD	U	*88.500*	124.500	132.500	107.500	121.000	112.000	119.000	99.500	152.000
	p	.026	.286	.416	.107	.240	.141	.211	.062	.859
E	U	118.000	124.500	107.500	136.500	133.000	*74.000*	97.000	114.000	120.000
	p	.381	.510	.215	.800	.711	.018	.110	.312	.419

Note: A – adaptability; SA – self-acceptance; AO – acceptance of others; EC – emotional comfort; I – internality; DD – desire for dominance; E – escapism; U – measurement of difference; p – level of significance; SC – self-control; SSS – search for social support; TR – taking responsibility; PSP – problem-solving planning; PR – positive revaluation; C – confrontation; D – distancing; E–A – escape avoidance; SES – self-evaluation of the experienced stress; level of significance given in *italics type* – $p \leq .050$; level of significance given in **bold type** – $p \leq .010$.

Fourteen statistically significant advantages were identified in the researched pairs of Group 1 and Group 2. Group 2 has all of the advantages, since distribution was formed individually by each scale of re-adaptation. Expectedly, the greatest number of differences was recorded by constructive strategies – nine. In terms of destructive strategies, Group 2 has advantages by five measurements. The largest number of measurements was recorded in the coping strategy "E–A". No advantage was identified in the parameter "self-evaluation of the experienced stress". Distribution of the groups by the parameter "adaptability" showed the highest levels of differences in the coping strategies "SC" (U = 77.500; p = .008) and "E–A" (U = 77.500; p = .008).

Discussion

In scientific sports literature, the problem of adaptation and its content, procedural and technological dimensions, and their correlation with tactics and strategy has been thoroughly studied (Krasmik et al., 2024; Popovych et al., 2022d). A considerable number of publications which were retrospectively analyzed in the introduction testify to this. It is noteworthy that this scientific problem remains topical today, as evidenced by the modern studies of the following scientists: V. Blikhar et al., 2024; O. Blynova et al., 2022b; O. Chebykin et al., 2024. However, the problem of re-adaptation in sports remains poorly explored. Researchers consider it in the context of adaptation, without paying due attention to the nuances of the differences between these related processes; there are attempts to identify re-adaptation with the first stage of rehabilitation (Lazorenko et al., 2020). In part, this identification can be explained by a lack of statistically significant differences between re-adaptation and adaptation samples. In studies on re-adaptation, much depends on the selected tools and research methodology. The experience of examining this phenomenon shows that effectiveness of the planned research strategy depends on the appropriately selected methodology. Re-adaptation should be regarded and positioned as an important phenomenon of sporting activities. It is necessary to find psychological content parameters and

develop effective re-adaptation technologies. Creating a profile of juniors's capacity for re-adaptation can considerably simplify the process of recovery and improve accuracy in planning the schedule of competitive activity.

The established correlations (see Tabl. 2) showed that all the parameters of re-adaptation correlate with coping strategies, but there is no correlation with self-evaluation of the experienced stress. We can explain it by the fact that re-adaptation processes which take place during a forced break of juniors have already triggered a number of mechanisms and coping strategies. We can state that this empirical situation is not considered to be stressful in our researched sample. We may disagree with it, but objective measurements of the range of correlations (r_s = -.228 to .095; p = .536 to .182) testify to a lack of significant correlations. Analysis of the correlations (see Tabl. 2) showed that the most dependent parameters of re-adaptation (three correlations for each) are as follows: "adaptability", "acceptance of others" and "internality". The above parameters have direct and inverse correlation. The most dependent coping strategies (five correlations in each) are as follows: "problem-solving planning" and "escape–avoidance". Since the correlation between "internality" and the coping strategy "problem-solving planning" (r_s = .549; p <.001) is the strongest direct correlation, we can state that the efforts made by the re-adapting individual to solve this problem have the greatest direct effect. The inverse correlation between the parameter "emotional comfort" and the coping strategy "escape–avoidance" (r_s = -.525; p = .001) has the opposite effect. This correlation is the strongest inverse correlation which can be explained by the fact that the re-adapting individual, who is at the stage of distress, is not ready to accept what has happened and "avoids" solving problems in search of emotional comfort. It is noteworthy that all the parameters of re-adaptation have significant correlations. This indicates appropriateness and relevance of the applied methods. Since no significant correlation was established between the coping strategies "search for social support", "positive revaluation", "distancing" and the parameter "self-evaluation of the experienced stress", we have reason to state that these coping strategies are ineffective at the stage of re-adaptation which can be the initial stage of rehabilitation.

Important scientific facts were found when comparing the parameters of re-adaptation, which were divided into two groups: Group 1 and Group 2 (see Tabl. 3). The most significant advantage is the advantage of the athletes in Group 2, who have high levels of adaptability and acceptance of others, since they are less prone to resort to the coping strategy "escape–avoidance". The largest number of advantages was recorded by high levels of the parameters of re-adaptation "adaptability" and "internality" – four in each. It is obvious that adaptive capacity and internal orientation towards problem-solving is the most effective combination of competences at the stage of juniors' re-adaptation to competitive activity after a forced break.

The first hypothesis is confirmed, since there are statistically significant correlations of constructive (nine) and destructive (five) coping strategies with the parameters of re-adaptation of the research participants. It was found that the respondents with high levels have an advantage over their counterparts with low levels of these parameters by all the parameters of re-adaptation. In general, the advantage of Group 2 testifies that the formed parameters of re-adaptation will contribute to effective rehabilitation work.

Conclusions

Re-adaptation of juniors to competitive activity after a forced break is a scientifically substantiated technology for athletes' return to active training and competitive processes aimed at resuming a sporting career. It was found that the researched parameters of re-adaptive capacity do not have statistically significant correlations with other samples which are partially or fully related to our research sample. The study proposes an algorithm for creating a profile of juniors' capacity for re-adaptation which considerably simplifies management of the process of recovery and increases accuracy in planning the events of competitive activity.

It was found that the most dependent parameters of re-adaptation (three correlations for each) are as follows: "adaptability", "acceptance of others" and "internality". "Problem-solving planning" and "escape–avoidance" are the most dependent coping strategies (five correlations for each). It was explained that the strongest direct correlation between "internality" and the coping strategy "problem-solving planning" (r_s = .549; p <.001) testifies that the efforts made by the re-adapting individual have the greatest re-adaptive effect. It was found that the correlation of "emotional comfort" with the coping strategy "escape–avoidance" (r_s = -.525; p = .001) has the opposite effect which is the most undesirable combination at the stage of re-adaptation. Comparison of the two groups with low and high levels of the parameters of re-adaptation confirmed that adaptive capacity and internal orientation towards solving problems are the most effective combination of juniors' competences at the stage of re-adaptation to competitive activity after a forced break.

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