Original Article

Emotional and volitional potential of self-mobilization in the organization of time perspective activity of highly qualified rowing athletes

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Abstract:

Nearly all outstanding achievements of highly qualified rowing athletes are the result of organized laborious training process and extreme self-mobilization in competitive performance based on personal potential. **Approach.** The theoretical background of the study comprises J. Nuttin's Behavior Model, K. Lewin's Field Theory, K. Abulkhanova's Energy Concept of the Psychological Time of the Personality. **Purpose.** The purpose of the study is to determine the organization-related relations between the time perspective activity and the personal qualities and preferences in emotional experiences of highly qualified rowing athletes, which constitute the emotional and volitional potential complex. The study involved 27 highly qualified rowing athletes who are the members of the National Team. The empirical research methods were as follows: natural quasi-experiment, the study of operating results, testing. **Results.** Two subgroups were identified using the cluster analysis within the group under experiment. Subgroup 2 (13 athletes) in comparison with subgroup 1 (14 athletes) had an advantage in the level of sports qualifications ($U=54.0$; $p=.048$) and in the development of these personal qualities: conscientiousness ($U=43.0$; $p=.017$); courage ($U=49.5$; $p=.039$); self-control ($U=28.0$; $p<.002$); emotional balance ($U=48.5$; $p=.037$). At the same time, the concern is relatively greater in subgroup 1 ($U=4.5$; $p<.001$). In the organization of the time perspective activity, the level of integrity and completeness of experiencing the moment of "present" is higher ($U=20.0$; $p=.001$) in subgroup 2, whereas the orientation towards "past negative" ($U=20.0$; $p=.001$) and "present fatalistic" ($U=32.5$; $p=.004$) is more notable in subgroup 1. The positive emotions of joy and pleasure are experienced equally often and much more often than the negative ones in the subgroups. At the same time, the negative emotions of fear and sadness are relatively more frequent in subgroup 1 ($U=39.5$; $p=.007$ and $U=41.5$; $p=.011$). The temporal structure of the moment of the rowing athlete's sports performance was considered according to the experimental data. **Conclusions.** The emotional and volitional potential of highly qualified rowing athletes provides the necessary completeness, depth, structuredness, realism and completeness of the time perspective activity, promotes full self-mobilization in the "present". The development of a complex of personal qualities including conscientiousness, diligence, self-control, courage, emotional balance alongside a positive emotional background (joy, pleasure) contributes to the optimal organization of the time perspective activity of highly qualified rowing athletes. The negative experiences of the recipients are associated with their problematic "past" and the strengthening of fatalism in the "present". The less successful highly qualified rowing athletes demonstrate more prominent markers of the "unfinished action" effect after a competitive performance. **Keywords:** personal potential, conscientiousness, timeliness of actions, self-control, competitive performance of an athlete.

Introduction

The competitive performances of highly qualified athletes are preceded by a long, intense, carefully organized training process. The athletes purposefully master and improve the necessary abilities, skills, tactics; they develop strength, endurance, speed, coordination in the implementation of actions. At the same time, both the athletes themselves and the people concerned often expect during the most important competitive performances that not only previous achievements will be repeated, but also improved, new success will be achieved (Alekseev, 1978; Popovych et al., 2020; Şeker, 2019). These kinds of success are associated with the disclosure of a person's emotional and volitional potential, decision and action potential in critical, stressful circumstances of life.

The responsible sporting events are always accompanied by the development of athletes' significant emotional and physical stress (Alekrinskis et al., 2019; Alekseev, 1978; Sopov, 2005). It should be mentioned that, the excessive emotional reactions contribute to impairments in the cognitive sphere, in motor coordination, in self-regulation of an individual. We assume that for an athlete primed for decisive actions, it turns out to be

fundamentally important not to suppress emotions, but to fully control them and to reorient his / her activity (that might excite) to the sphere of finding the most energetic and confident solution of sports problems. The full self-realization of a person is possible only when he/she performs effective volitional regulation of cognitive, emotional, and motor spheres. Both emotional and volitional personal qualities as latent and explicit opportunities for the optimal organization of an athlete's competitive activity are necessarily combined into a complex of emotional and volitional potential as part of personal potential (Agisheva et al., 1982; Cheban et al., 2019).

The composition of the emotional and volitional potential complex and the features of its implementation are significantly influenced by the specificity of an activity which constitutes its structure. A common characteristic feature of a sporting activity is its limitation by fairly clear rules and conditions. This, in turn, introduces a special certainty into the dynamics of relations in the "individual-environment" system. Depending on a kind of sport, this certainty can be expressed at different levels, but it is never exhaustive. Thus, for example, in martial arts its level is lower, whereas in athletics, swimming, rowing it is higher. In the latter case, the performance of an athlete depends more on his/her personal characteristics, competitive attitude, sports mastery, physical form and a developed action program, but not on the attendant circumstances. The general stress resistance, largely ensured by the development of stress-limiting mechanisms and individual susceptibility to the influence of stress factors, is the basis for organizing human activities in critical life circumstances (Olefir et al., 2019; Symonenko et al., 2013). On this basis, volitional and emotional qualities, self-regulation skills, mental resources which are necessary for the athlete's self-mobilization, are included in the system of a sporting activity.

The desired variant of competitive self-mobilization is the athlete's achievement of his/her best state of readiness for actions, considered as "optimal combat", as a state of "ideal performance", as "zone of optimal functioning" (Alekseev, 1978; Gould et al., 2009; Sopov, 2005). According to its key distinctive features, the considered state is a special state of consciousness, which is characterized by a full-fledged coordination of the functioning of the components in the dynamic "individual-environment" system, integrity, intentionality, continuity, plasticity and a notable rise in the energy status of the activity system. In the definitions of M. Csikszentmihalyi, such a state is represented as "flow" (Csikszentmihalyi, 2015). An athlete who has reached the highest level of readiness for actions, his / her physical and intellectual capabilities sharply increase, the "vision" of the most significant relations of reality expands and deepens, the full involvement in changes in the current situation is observed, correct decisions are made almost instantly, movements become especially fast, powerful, energy-preserving and extremely accurate.

Rowing and canoeing are highly coordinated, high-speed, strength-involving kinds of sport with clear rules and fairly stable conditions for competition (Das et al., 2019; Kolumbet, 2017; Miarka et al., 2018; Zainuddin et al., 2019). The components of the complex of emotional and volitional potential, providing competitive self-mobilization, are combined in the system of rowers' activity with the designated specificity. The direct statistical relationship between the success of performances and a high level of development of the person's qualities like conscientiousness, courage, determination, self-control, cheerfulness and emotional stability was earlier established in our studies of the rowing athletes' activities (Cheban, 2018; Cheban et al., 2020a; Cheban et al., 2020b). The respondents demonstrated predominantly positive emotional background of their life activities. The facts of rowing athletes' productive use of such mental resources as figurative constructs ("Victory representation", self-identification with a "powerful mechanism") and verbal formulas of self-persuasion and indirect self-hypnosis were also established for self-regulation.

In the context of the specifics of rowing sports, special attention is drawn to the qualities of conscientiousness, cheerfulness and emotional stability. These are the qualities that, to a large extent, ensure the clarity, coherence and stability of the realization of both a training program and a program of competitive performances in the development of the time perspective of the rower's activity.

In the most general version, the time perspective of a person's life can be presented as an integral, analytic organization of psychological time, combining the meaningful content from the actualized psychological past and the expected psychological future at each current moment (Abulkhanova et al., 2001; Golovakha et al., 2008; Nuttin, 2004). Therefore, we may state that the further presented information is conceptually important for the problem under consideration. J. Nuttin relies on a model of behavior based on the "relation", in which the source of the recipient's motives is determined by his/her relationship with the environment. The author strongly suggests considering the time perspective in a narrow sense as a sequence of cognitive representations as opposed to temporal attitudes and temporal orientations (Nuttin, 2004). However, a sporting activity is oriented towards the achievement and saturated with various expressed experiences and moments of extreme mental and physical stress (Alekseev, 1978; Sopov, 2005). In such activities, cognitive representations cannot be separated from their motivational, emotional and value-centered support without significant loss of their meaning. As a result, it becomes necessary to consider the time perspective activity of an athlete in a broad sense - in the completeness and variety of mental and physical manifestations.

The organization of the time of human life activities is mainly studied as a function of consciousness. However, according to K. A. Abulkhanova and T. N. Berezina, the unconscious level of mental regulation makes a significant contribution to the structuring of the psychological time (Abulkhanova et al., 2001). It is the level

that the authors associate with the resource of the individual's activity, with the potential energy of actions. Athletes, overcoming current limitations and difficulties, reveal their latent possibilities unconsciously in the growth of sportsmanship, in sports achievements, in the development of personal qualities, in the improvement of functions and means of self-regulation (Arol et al., 2018; Siekanska et al., 2020; Zharmenov et al., 2019).

A number of characteristic features can be distinguished in the organization of the time perspective activity of highly qualified athletes. First, taking into account the absorption in solving sports-related problems, the life time perspective of athletes is saturated with their cognitive representations and experiences from sports practice. Second, the considered time perspective has a high level of structuring and planning in relation to the training, competitive and recovery processes. Third, highly qualified athletes, quite adequately assessing their capabilities and their implementation in the given circumstances, have a fairly realistic time perspective activity. Fourth, a thorough planning of the training process with a focus on distant future competitive performances provides a significant depth of time perspective for an athlete. Fifth, the athlete's time perspective is focused on extreme manifestations. It should be noted, with regard to the latter, that the changes in vital activity of highly qualified athletes reach extreme values both in the training process, and especially in their competitive performances, quite often and predictably. At the same time, actions at the extreme level of mental and physical stress require the most complete, concentrated and organized mobilization of all possibilities including hidden ones from an individual in the shortest possible time.

The "squeezed" moment of extreme tension of an athlete is fully defined from the point of view of the key principle in the field theory of the "given moment". This principle is formulated by K. Lewin as follows: "any behavior or any other change in the psychological field depends exclusively on the psychological field that exists at the given moment" (Lewin, 2001: 241). In other words, an athlete can be trained intensively and productively, he/she can have perfect sportsmanship, the best physical conditions and developed personal qualities alongside an effective action program. However, the result of a competitive performance depends on how fully, harmoniously and timely the athlete can or cannot unite all the necessary personal potential, energetically realize it in decisions and actions in the state of critical self-mobilization at a certain moment.

The generalized analysis of the peculiarities of the time perspective of highly qualified athletes indicates the need for completeness and clearness of successive stages of active realizations. Neither premature nor late actions lead to success. Sports achievements are possible only with a full, timely, organized concentration of efforts and dedication of an athlete.

The competitive self-mobilization of an athlete along with other factors is also determined by the characteristics of the organization of the time perspective activity. A person, relying on his/her stable emotional assessments of events, predilections, life guidelines, can tend to predominantly update experiences, forms and judgments of the content of the "past" or expectations from the "future" (Golovakha et al., 2008; Şeker, 2019). It is naturally that the actual attitude to an action as an expanded duration of the self-realization process contains both necessary components generated from the achievements and impressions of the psychological past and target guidelines and expectations of changes that may occur in the psychological "future" (Plokhikh, 2019). But the conspicuous asymmetry in the predominantly voluntary or involuntary concentration of attention on the "past" or the "future" distracts consciousness from a full-fledged presence in the "present", disorients, weakens the energy of actions.

The combinations of cognitive representations and experiences from the "past", "present" and "future" that are allowed in the activities of highly qualified athletes are clearly distinguished from the standpoint of the causal and target-oriented concept of psychological time and behavior model based on the "relation" (Golovakha et al., 2008; Nuttin, 2004). On the indicated theoretical basis, it is possible to quite accurately determine the moments of the implementation of sports actions, proceeding from special relationships in the "individual-environment" system and ending with the achievement or failure to achieve the set goal. It is also possible to assess the saturation and depth of time perspective, differentiation of the stages of self-realization of an athlete, highlighting significant circumstances and resources.

The key points in the organization of sports activities can be quite clearly established and lined up in sequence for highly qualified rowing athletes. At the stages of training, the goal is to laboriously improve sportsmanship and achieve optimal sports form by the moments of the main competitive performances (Bohuslavskaya et al., 2017; Strykalenko et al., 2019; Zharmenov et al., 2019). At the moment of competitive self-mobilization, the rower with absolute certainty must start decisively, energetically and in a timely manner, clearly implement the adopted program of concentration and distribution of efforts in the race at the highest proficiency level, find the strength for a powerful finishing spurt and with dignity accept the result of the performance and proceed to the recovery stage (Alekrinskis et al., 2019; Kolumbet, 2017; Siekanska et al., 2020). Athlete's successful and complete, according to the criteria of optimality, realization of the specified moments of extreme activities should be supported by a complex of emotional and volitional potential.

Research hypothesis. The development and full-fledged realization of personal qualities and a positive emotional mood, included in the complex of emotional and volitional potential, contribute to the optimization of the organization of the time perspective activity of highly qualified rowing athletes.

The purpose of the study is to determine the connections between the organization of the time perspective activity and the personal qualities and preferences in emotional experiences included in the complex of

emotional and volitional potential of highly qualified rowing athletes.

Research Objectives:

- 1) To theoretically substantiate the connections between emotional and volitional potential and the organization of the time perspective activity of highly qualified rowing athletes.
- 2) To determine the connections between personal qualities constituting the complex of emotional and volitional potential and the components of the time perspective activity of highly qualified rowing athletes.
- 3) To identify the connection between preferences in experiencing emotional states and the components of the time perspective activity of highly qualified rowing athletes.

Material & methods

The empirical study involved 27 rowers of the National Team (age from 16 to 31). The persons under experiment had sports qualifications ranging from Candidate Master of Sports to Honored Master of Sports. On the ordinal scale of the qualification "Honored Master of Sports", the value "1" was assigned. Each decrease in the level of sports qualification corresponded to a value on the code ordinal scale, increased by onecore. The participation in the study was voluntary. The subjects were motivated by the significance of the research results for improving the organization of the training process.

The sports qualifications of the recipients were considered as a manifestation of their success and achievements, as an indicator of the effectiveness of extreme actualization of emotional and volitional potential in the process of competitive self-mobilization.

The ability to overcome physical fatigue, which is significant for an athlete, was studied in a natural quasi-experiment. In experimental terms, the fatigue of the rowing athletes during intense training corresponded to the independent variable. The dependent variable in the experiment is the time to overcome the control distance before (t1) and after (t2) the main training course. According to the instructions, the subjects were guided by the extremely high speed of passing the control distance. A significant saturation of the training process between the controlled race was due to the intensive training of the athletes for the upcoming World Championship.

The control distance of 150 meters was marked on the rowing canal with special buoys. The timing of the distance of the subjects was carried out by the trainer and the experimenter accompanying the race on the boat (a stopwatch was used). It was assumed that the shorter the time of the second race is (the higher speed), the less its relative variation is manifested due to training exhaustion (t_2 / t_1) and, accordingly, the rower's ability is higher to actualize the emotional and volitional potential in the process of competitive self-mobilization.

The method "Scale-thermometer" of Yu. Ya. Kiseleva was used to diagnose the functional state of the subject before the first race and after the second race. According to this method, the subject assessed his/her own current state on 20-point scales of the "thermometer" by the following indicators: well-being; activity; mood; desire to work; satisfaction with the passed stage. It is similarly to the assessment of the relative variation in the time of the control race, the relative variations that occurred during the training ("after" / "before") were assessed in the recipient's state.

The study also diagnosed: the key motivation of achievements (success) in the motivational structure of the sporting activity; the components of emotional and volitional potential (personal qualities, tendencies in the experience of the basal emotions). The motivation for the recipients' achievements was determined according to the method of T. Elers, and the emotional and volitional qualities were evaluated by means of the personal questionnaire *16 PF* elaborated by R. Cattell and R. Baumeister's Self-Control Scale. The propensities of the athletes under experiment in experiencing emotions were established by means of the T. Dembo's method of self-assessment of basal emotions. The subjects assessed the frequency of manifestation of their basal emotions (joy, fear, pleasure, anger, sadness) according to the 7-point scale (scale gradation: never (1); very rarely (2); rarely (3); sometimes (4); often (5); very often (6); always (7)).

The peculiarities of the organization of the time perspective of the subjects' activity were determined by using F. Zimbardo's method and the scales "Competence in Time" from the personality self-actualization test (SAT). According to F. Zimbardo's method, the intensity of the subjects' orientations towards the events of the "past", "present" and "future" was established. On the "Competence in Time" scale, the integrity and completeness of the athletes' experience of the "present" moment were diagnosed.

Thus, the values of the following indicators were determined: sports qualification; indicator of overcoming fatigue (t_2 / t_1); self-esteem of well-being, activity, mood, desire to work, satisfaction with the past stage (absolute and relative values); the frequency of manifestation of basal emotions; motivation for achievements. These personal qualities were diagnosed: emotional stability (factor C); concern or vice versa – cheerfulness (factor O); conscientiousness or normative behavior (factor G); courage (factor H); self-control (factor Q3); self-control (R. Baumeister). In organizing the time perspective, the severity of the subjects' orientations towards the Past Negative, Present Hedonistic, Future, Past Positive, Present Fatalistic was assessed. The integrity and completeness of the experience of the "present" was determined.

The statistical package IBM SPSS Statistics 20 was used for quantitative analysis of the data. The cluster analysis (method of intergroup relationships; measure χ^2), correlation analysis (according to Spearman), Mann-Whitney U-test, χ^2 – Friedman's Test were used.

Results of Research

As in our previous work, according to the results of cluster analysis, carried out on the indicators of the personal qualities of conscientiousness (factor G) and concern (factor O), two subgroups were clearly distinguished in the group (Cheban et al., 2020b). The representatives of subgroup 1 (14 subjects) differ from the representatives of subgroup 2 (13 subjects) in reduced conscientiousness and increased concern (Table 1). The subgroups characteristically differ in the level of expressiveness of other personal qualities of the emotional and volitional character (see Table 1). At the same time, the sports qualification is generally higher in subgroup 2 than in subgroup 1 ($U=54.0$; $p=.048$).

Table 1. Comparison of the expressiveness (Mann-Whitney U-test) of emotional and volitional qualities of the athletes under study who constitute subgroups 1 ($n_1=14$) and 2 ($n_2=13$)

Subgroups of subjects	Statistic parameter	Emotional balance	Concern, anxiety	Conscientiousness	Courage, confidence	Self-control (Baumeister)
Subgroup 1	<i>Me</i>	5.5	8.0	6.0	6.0	41.5
	<i>min</i>	1.0	5.0	2.0	3.0	30.0
	<i>max</i>	8.0	10.0	8.0	8.0	50.0
Subgroup 2	<i>Me</i>	7.0	5.0	8.0	7.0	50.0
	<i>min</i>	3.0	2.0	6.0	4.0	35.0
	<i>max</i>	10.0	6.0	10.0	9.0	56.0
	<i>U</i>	48.5	4.5	43.0	49.5	28.0
	<i>p</i>	.037	< .001	.017	.039	.002

Regarding the indicator “self-control” diagnosed by means of R. Baumeister’s method, it should be noted that this indicator significantly correlates with Q3 factor determined by R. Cattell’s method ($R_s=.555$; $p=.004$). At the same time, the connections of “self-control” with other indicators in the first variant are more diverse and prominent. It was this variant that was adopted as the main one.

The statistical analysis made it possible to establish significant differences between the subgroups according to the indicators of the organization of the time perspective activity. In subgroup 2, the integrity and completeness of the experience of the “present” is significantly higher and the orientation towards the “future” is significantly (at the level of tendencies) more notable than in subgroup 1 (Table 2). At the same time, according to the indicators “Past Negative” and “Present Fatalistic”, the subjects of subgroup 1 had an advantage.

A connection between a number of components of the structural organization of the time perspective and the personal qualities included in the complex of the emotional and volitional potential of a rower was established for the athletes under experiment within the entire group (Table 3). A statistical feedback of the achievement motivation of the group under experiment with Past Negative was also established ($R_s=-.413$; $p=.040$).

Figure 1 shows the statistical results of the cognitive self-assessment of the experience of basal emotions by the subjects of the subgroups.

Using Friedman’s criterion, it was found that the participants of the experiment experienced the basal positive emotions (joy, pleasure) much more often than the negative ones (fear, anger, sadness) both in subgroup 1 ($\chi^2=18.448$; $df=4$; $p=.001$) and in subgroup 2 ($\chi^2=42.992$; $df=4$; $p<.001$). The positive emotions in subgroups are experienced equally often. At the same time, the subjects of subgroup 1 have the negative emotions of fear and sadness relatively more often ($U=39.5$; $p=.007$ and $U=41.5$; $p=.011$).

Table 2. Comparison of the expressiveness (Mann-Whitney U-test) of the components of the time perspective of performances demonstrated by the subjects of subgroups 1 ($n_1=14$) and 2 ($n_2=13$)

Subgroups of subjects	Statistic parameter	Integrity, completeness of experience of the present	Past Negative	Present Hedonistic	Future	Past Positive	Present Fatalistic
Subgroup 1	<i>Me</i>	8.0	28.5	52.5	50.0	33.0	25.0
	<i>min</i>	5.0	16.0	45.0	46.0	21.0	16.0
	<i>max</i>	11.0	45.0	61.0	58.0	41.0	33.0
Subgroup 2	<i>Me</i>	11.0	22.0	49.0	51.0	36.0	18.0
	<i>min</i>	8.0	15.0	33.0	48.0	29.0	11.0
	<i>max</i>	12.0	29.0	60.0	61.0	38.0	27.0
	<i>U</i>	20.0	20.0	65.5	54.5	77.5	32.5
	<i>p</i>	.001	.001	.214	.075	.508	.004

The statistical connections of the frequencies of experiencing various emotions with the indicators of marked orientations towards the components of the time perspective of sports activity were determined for the members of the entire group (Table 4).

The temporal structure of the organization of a sports performance was considered according to the results of a natural quasi-experiment. The time indicator of overcoming fatigue in the subgroups does not differ significantly. At the same time, the decrease in the state of health of the rowers being the members of subgroup 1 at the moment after the second experimental race from the level marked at the beginning of the training was

noticeably greater than in subgroup 2 ($U=51.0$; $p=.049$). In subgroup 2, the state of health in the process of the training and control races basically does not change. From the point of view of assessing whether the members of the entire group had a sense of completeness of the realized stage of certain sports activity, the results on the “desire to work” scale are indicative. The absolute values of the “desire to work” indicator before and after training are associated with the motivation to achieve success (respectively: $R_s=.466$; $p=.019$ and $R_s=.486$; $p=.014$); whereas the relative increase in the subjects’ desire to work after training is not associated with their motivation to achieve success, it is associated with an increase in the frequency of fear experiences ($R_s=.687$; $p<.001$). At the same time, both the absolute and the relative increase in the recipients’ desire to work after the completion of the training is correlated with a decrease in sports qualifications (respectively: $R_s=.530$; $p=.006$ and $R_s=.484$; $p=.014$). The desire of highly qualified rowing athletes to work in a special way is superimposed on changes in the time perspective of performances: it is inversely related to the “Past Negative” before training ($R_s=-.500$; $p=.011$) and directly related to the focus on the “Future” ($R_s=.433$; $p=.031$); its relative increase after training is already directly associated with both the “Past Negative” ($R_s=.426$; $p=.034$) and the “Present Fatalistic” ($R_s=.500$; $p=.011$). It was also found that the recipients’ desire to work in the group after training is directly related to their concern ($R_s=.433$; $p=.031$) and vice versa is related to the emotional balance ($R_s=-.538$; $p=.005$) and at the level tendencies – to courage ($R_s=-.377$; $p=.063$).

Table 3. Statistical connections (according to Spearman) of indicators of the organization of the time perspective with personal qualities included in the complex of emotional and volitional potential of the subjects of the entire group ($n = 27$)

Indicator	Statistic parameter	Emotional balance	Concern, anxiety	Conscientiousness	Courage, confidence	Self-control (Baumeister)
Integrity, completeness of experience of the present	R_s	.500	-.694	.455	.388	.538
	p	.011	< .001	.022	.055	.006
Past Negative	R_s	-.598	.751	-.464	-.556	-.581
	p	.002	< .001	.019	.004	.002
Present Hedonistic	R_s	-.379	.372	-.066	-.149	-.428
	p	.062	.067	.754	.477	.033
Future	R_s	.193	-.343	.210	.464	.420
	p	.355	.094	.313	.019	.036
Past Positive	R_s	-.001	-.088	.418	.325	-.028
	p	.995	.675	.038	.113	.896
Present Fatalistic	R_s	-.415	.649	-.388	-.483	-.440
	p	.039	< .001	.055	.014	.028

Figure 1. Frequency characteristics of manifestations of basal emotions in the organization of the time perspective activity performed by the rowers in subgroup 1 (1) and subgroup 2 (2).

Table 4. Statistical connections (according to Spearman) of the indicators of the organization of the time perspective with the frequencies of experiencing emotions by the members of the group (n=27)

Indicator	Statistic parameter	Frequency of experiencing emotions				
		joy	fear	pleasure	anger	sadness
Integrity, completeness of experiencing the present	<i>R_s</i>	.478	-.521	.409	-.321	-.513
	<i>p</i>	.016	.008	.043	.118	.009
Past Negative	<i>R_s</i>	-.258	.630	-.401	.517	.515
	<i>p</i>	.212	.001	.047	.008	.008
Present Fatalistic	<i>R_s</i>	-.064	.592	-.007	.119	.433
	<i>p</i>	.760	.002	.975	.572	.031

Discussions

With regard to highly qualified rowing athletes, our findings on a wider sample of recipients demonstrating different sports qualifications are supported (Cheban, 2018; Cheban et al., 2020b). This also applies to the statements that an increase in the level of sportsmanship is associated with the development of athletes' personal qualities related to the emotional and volitional spheres. The personal qualities included in the complex of emotional and volitional potential for rowing and canoeing ensure the maintenance of a fundamentally important optimal combination of complex coordination of movements and the maximum power of the stroke in extreme mode activity (Kolumbet, 2017; Zainuddin et al., 2019). The results obtained indicate that a successful rowing athlete is characterized by: emotional stability, cheerfulness, equanimity, courage, self-control and in a special way – conscientiousness (see Table 1).

Conscientiousness is a systemic personality quality that is fundamentally important for the organization of athletic activities. The conscientiousness is expressed in the accuracy and discipline of the task execution for a rowing athlete, who has a clear program and relatively stable conditions for actions. At the same time, K. A. Abulkhanova and T. N. Berezina consider discipline as a temporal value that ensures the timeliness of the subject's directed realizations (Abulkhanova et al., 2001). From the viewpoint of the energy concept of the psychological time proposed by the before mentioned authors, the volitional personal qualities come laden with the energy of time, the energy of life embodiments. A certain potential energyboost can be seen in any of the components of the complex of the athlete's emotional and volitional potential.

The timeliness of human actions is not a quantitative, but a quality characteristic (Plokhikh, 2019). Timeliness in an athlete's actions presupposes a certain fullness and completeness of self-realizations, coordination of the temporal signs of the main mental representations of events with the physical time of their embodiment (anticipated moments of time for achieving intermediate and final goals), consideration of anticipated critical moments in the development of significant objective processes. At the same time, the informational value of the subject's emotional reactions increases significantly (Abramcirov, 2018). The specified understanding of timeliness in relation to a disciplined, courageous, decisive, selfless rowing athlete means that each element of the adopted program of sports training and competitive performance should be carried out with an understanding of the dynamics of a situation development, with the required (often complete) self-dedication, emotionally sustained and occurring at a pre-set time.

The results obtained indicate that personal qualities of highly qualified rowing athletes related to emotional and volitional potential and providing stability, energy and coordination of rowing movements are directly related to the effective organization of the time perspective activity (see Table 3). At the same time, the optimal temporal organization activity contributes to an increase in the probability of success, an increase in the sports qualifications of the subjects (see Table 2). Furthermore, these qualities are inversely related to manifestations of uncontrollability in relation to the sequence, timeliness and content of actions (passion for the negative "past", fatalism). A person really acts only in the "present", but with the experience of the "past" and with an orientation toward goals in the "future". In critical situations, the attention focus of people who lose self-control and self-command is often narrowed and predominantly attuned to individual circumstances far from being significant ("tunneling" of consciousness) (Symonenko et al., 2013). In a competitive activity with a tension close to the maximum, this effect is manifested in the athlete's excessive concentration on the details of actions, without taking into account the entire situation. "Tunneling" of consciousness can also occur in cases of significant fatigue and painful reactions, when athlete's attention is excessively "riveted" on the expressed manifestations of the body and negative experiences (for example, the state of the painful finish syndrome) (Sopov, 2005). The calculations show that professional development of highly qualified rowing athletes is definitely associated with an improvement in the integrity and completeness of the assessment and experience of the moment of the "present" (see Table 2).

In J. Nuttin's model based on the "relation", the emphasis is primarily fixed on those relations within the "individual – environment" system, which are the initial ones in generating needs, motives, in setting goals and accepting an action programme (Nuttin, 2004). However, in order to ensure the timeliness of the subject's self-realization, it is fundamentally important to take full-fledged, holistic account of all the essential components of the psychological field in the dynamics of their changes. At the same time, both the final and intermediate goals should be anticipated on the basis of an expanded understanding of possible future relationships within the

“individual-environment” system (Plokhikh, 2019). These moments are not fully taken into account in J. Nuttin’s model based on the “relation”, but they are considered in K. Lewin’s theory of the psychological field (Lewin, 2001).

The highly qualified rowers have a wide “area of thought” which is clearly associated with sports success, with the development of personal qualities of emotional and volitional potential (see Table 3). By contrast, the deformation of the recipients’ psychological field is caused by deficiencies in the development of their volitional and emotional qualities. At the same time, the athlete’s assessment of the moment of the “present” is also impaired under the influence of strong and predominantly negative experiences (Alekrinskis et al., 2019; Şeker, 2019; Sopov, 2005). The “aggravating” influence of impressions from the “past” saturated with negative emotions and anxious expectations from the “future” clearly acts as a destructive factor in organizing the time perspective activity of the experiment participants (see Table 3 and Fig. 1).

Our results confirm the literature data on the need to be optimistic and have a tendency to experience positive emotions for an athlete (Aleksiev, 1978; Siekanska et al., 2020). The frequency of experiencing the basal emotions of joy and pleasure significantly exceeds the frequency of experiencing fear, sadness, and anger (see Fig. 1). In turn, the athletes’ experiences of joy contribute to the optimization of the organization of the “present” moment (see Table 4). On the other hand, a noticeably greater “aggravation” accompanied by the emotions of fear and sadness demonstrated by the members of subgroup 1, in comparison with subgroup 2, enhances their orientation toward the “past” negative, enhances fatalism, suppresses their self-realization in the “present” (see Fig. 1 and Table 4).

The results of the experimental research allow us to highlight the connection between the mental state and the temporal organization of the moment of the competitive performance. The statistical analysis of the data shows that the increase in the participants’ desire to work after completing a competitive task does not correlate with the motive to achieve success which they had at the beginning of the training; on the contrary, it correlates with the emotion of fear. Once again, this effect is more typical for the members of subgroup 1. Furthermore, in subgroup 1, in contrast to subgroup 2, a decrease in their state of health and, in fact, their energy potential after training is quite noticeable. The presented phenomenon can be understood in this way: the subjects striving to work “post factum” have an increased experience of discrepancy between the expected and the obtained results, a residual stress is retained in the psychological field (Sopov, 2005). Athletes who experience a high motivation for achievements have the designated kind of experience which is accompanied by an involuntary impression that the shortcomings can be immediately eliminated by subsequent actions. Within this phenomenon, a certain unpreparedness of the subject to accept the result obtained, his / her unpreparedness to immediately refer to the psychological “past” that has already objectively happened, are manifested. In this variant, the performed actions remain psychologically incomplete for the subjects and their images, burdened with negative emotional content and fatalism, are superimposed on the psychological field in the actual “present” (statistical results).

The above phenomenon can be considered as a kind of “unfinished action” effect, which B. Zeigarnik (Zeigarnik, 2001) studied thoroughly in connection with the memory functioning. The author, based on empirical data, highlights that ambitious people demonstrate this effect rather expressively. The latter may be attributed to the highly qualified athletes who participated in our study. If we consider the practice of sports performances, the destructive influence of the “unfinished action” effect and deformation of the time perspective activity in an obviously problematic variant appears in states of psychomotor and emotional perseverations accompanied by “tunneling” of consciousness (Sopov, 2005).

The obsessive repetitions of a rower performing cyclical movements may not be immediately distinguishable. Here, perseverations appear in the form of repetitive technical and tactical errors, in the athlete’s inability to rapidly change the speed and energy of actions, in his / her fixation and self-reinforcement (pathological contour) of suppressing the activity of negative experiences from overstrain and fatigue. In fact, these effects indicate the difficulties that an athlete has in separating the interim plans of the “present” and “past”. To this should be added the fact that in the state of a growing anxiety and fear, the “threatening” psychological “future” also “crushes” and destroys the moment of the “present”. As a result of these processes, recipients who experience the effect of “unfinished action” towards the unsatisfied need for sports achievements at the moment of real completion of task solving, an incentive to eliminate the experiences of “inconsistency” is added. A new relation arises within the “individual-environment” system, which is accompanied by imposing the previous one. In such a situation, which is quite explainable from the standpoint of J. Nuttin’s model, the subjects develop an involuntary desire for self-rehabilitation, a desire to change the result in repeated actions (Nuttin, 2004). On the other hand, the results obtained indicate that the elimination of destructive influences on the temporal organization of the “present”, as in the case of more extended variants of the time perspective activity, it is also provided with personal qualities from the complex of emotional and volitional potential (emotional balance, courage and cheerfulness, as opposed to concern and anxiety) for highly qualified rowers.

Conclusions

Based on the results of the study, the following conclusions can be drawn.

J. Nuttin’s behavior model based on the “relation”, the provisions of K. Lewin’s theory of the psychological field, K.A. Abulkhanova’s energy concept of the psychological time of the personality can be a

theoretical basis for the study of the connections existing between emotional and volitional potential and the organization of the time perspective activity of highly qualified rowing athletes.

The emotional and volitional potential of a highly qualified rowing athlete is temporally organized. This potential is based on the experience of the “past”, focused on actualization of the “future” in certain situations, it is included in the regulation of the “present” and in general provides the necessary fullness, depth, structuredness, realism and completeness of the time perspective activity. The volitional and emotional personal qualities of highly qualified rowers under extreme circumstances of sports performances contribute to improving control over the variety of manifestations of the current moment, optimizing the temporal structure of self-mobilization in the “present”, timely maximum concentration of efforts, a clear organization of the sequence of coordinated energetic actions, achieving a high final result.

The development of a complex of volitional and emotional personal qualities (conscientiousness, cheerfulness, self-control, courage, emotional balance) is significantly associated with the optimization of the time perspective activity for highly qualified rowing athletes.

A positive emotional background (joy, pleasure) contributes to the optimal organization of the time perspective activity of highly qualified rowing athletes. The negative emotional attitude of athletes with expressed feelings of fear, sadness and anger is associated with a problematic “past” and an increase of fatalism in the “present”.

The less successful highly qualified rowing athletes have more prominent signs of the “unfinished action” effect after a competitive performance. For an athlete, this effect is associated with disturbances in the temporal structure of the moment of the “present”, with a decrease in his / her state of health, with the actualization of negative impressions from the “past”, with an increase in mood of fatalism, with experiencing fear.

Conflict of Interest. The authors declare that there is no conflict of interest.

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