



Mental self-regulation and implementation of preparedness in competitions among athletes with different levels of hardiness

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Abstract

Objective of the study was a comparative analysis of the indicators of mental self-regulation and physical fitness performance at the competitions among athletes with different hardiness level.

Methods and structure of the study. A psychodiagnostic examination of athletes (men and women) of different sports was carried out according to the hardiness test and questionnaire for the diagnosis of indicators of mental self-regulation in difficult situations of competition.

Results and conclusions. Differences in the level of control among athletes of different sexes and different sports were revealed. It has been established that in connection with the severity of involvement, control and the general level of resilience, athletes have different processes of mental self-regulation in competition conditions. Differences were found in the implementation of readiness (training) in athletes with different levels of control and risk taking.

Keywords: athletes, hardiness, mental self-regulation, preparedness.

Introduction. In recent years, domestic athletes have been exposed not only to stress factors traditional for sports (competitions, sports career crises), but also stress factors associated with the peculiarities of the situation in the world (restrictions due to the COVID-19 pandemic, isolation of Russian athletes from international competitions). Under these conditions, the ability of an athlete to show resilience is of great importance - that is, to regulate their motives and personal meanings in order to adapt to the changing social and psychological situation [1, 3]. When studying resilience in athletes, experts usually focus on the social, personal and behavioral determinants of this phenomenon [3, 4, 5]. At the same time, questions about the relationship between hardiness characteristics and indicators of mental self-regulation in sports significant situations remain out of sight. Also, there is no clarity in understanding the influence of the

athlete's resilience on the implementation of his readiness (training) in competition conditions.

Objective of the study was a comparative analysis of the indicators of mental self-regulation and physical fitness performance at the competitions among athletes with different hardiness level.

Methods and structure of the study. The study involved 164 athletes (60 men and 104 women) aged 18-34 years old, involved in sports: cyclic - 26.3% (athletics, swimming, cycling), complex coordination - 29.6% (sports and rhythmic gymnastics, figure skating, acrobatics), sports games - 27.4% (football, basketball, handball), martial arts - 16.7% (judo, karate). The study participants had 6-15 years of experience in sports and sports qualifications from the first adult category to the master of sports. All athletes were examined according to the S. Muddy hardiness test adapted by D.A. Leontiev and E.I. Narrative and a

questionnaire for diagnosing indicators of mental self-regulation in difficult situations of competitions, developed by A.E. Lovyagina on the basis of the concept of organization of mental processes by A.V. Karpova [2]. In addition to questions about self-regulation, when filling out this questionnaire, athletes assessed how successful they are in the conditions of competitions in realizing their readiness (training) for the start.

Results of the study and their discussion. For most athletes, the characteristics of hardiness (involvement, control, risk taking, general level) correspond to the average level of standard values. Compared to women, men have higher control indicators (Mann-Whitney test: $U=2431$, $p=0.008$), which indicates that athletes are more active and independent in the fight against difficulties than athletes.

Also, the indicators of control were higher in those involved in sports games and martial arts than in representatives of cyclic and complex coordination sports (Kruskal-Wallis test: $H=10.471$; $p=0.015$). The revealed differences may be explained by the fact that in sports games and martial arts the result largely depends on the activity of the participants, the ability to “impose” a fight and control the situation “until victory”. Whereas in cyclic and complex coordination events, an athlete can do everything he is capable of

at the moment and show the result he is ready for, but the opponent will still be better, because he is ready for a higher result or because of refereeing.

As can be seen from Table 1, the increase in all characteristics of vitality is interconnected with the actualization of volitional processes (answer D) in difficult situations of competition. With a higher level of involvement, athletes are more likely to regulate their cognitive processes (answer A) and emotions (answer B). An improvement in self-management by emotions is also noted with an increase in the overall level of hardiness (Table 1).

An increase in the effectiveness of mental self-regulation in competitions is interconnected with an increase in control (correlation analysis, Pearson’s criterion: $r = 0.221$; $p \leq 0.01$) and a general level of hardiness (correlation analysis, Pearson’s criterion: $r = 0.221$; $p \leq 0.01$). Athletes with higher control and risk acceptance are more successful in implementing competition preparedness (Table 2).

Thus, in the conditions of competition, those athletes who are more “charged” to fight negative life circumstances are more effective and productive, as they are convinced that a lot in life depends on them. level of preparedness athletes who do not focus on safety and are ready to take risks because they consider dif-

Table 1. Relationships between hardiness indicators and athletes’ answers to questions about mental self-regulation at competitions (correlation analysis, Pearson’s criterion) ($n=164$)

In order to successfully operate in difficult situations of competition, I try to:	Vitality characteristics			
	Involved	Control	Acceptance of risk	General level
A. “Turn on the head”, focus on the upcoming activities, act meaningfully, thoughtfully.	$r=0,177$; $p \leq 0,05$	not significant	not significant	not significant
B. To evoke the necessary emotions: calm down, get angry, feel the fighting spirit.	$r=0,178$; $p \leq 0,05$	not significant	not significant	$r=0,177$; $p \leq 0,05$
C. Better motivate yourself, increase or decrease the desire to deal with difficulties.	not significant	not significant	not significant	not significant
D. «Keep yourself in hand», act decisively, persistently, fight to the end.	$r=0,297$; $p \leq 0,001$	$r=0,327$; $p \leq 0,001$	$r=0,243$; $p \leq 0,01$	$r=0,346$; $p \leq 0,001$

Table 2. Influence of hardiness characteristics on the implementation of preparedness for competitions (regression analysis, $R^2 = 0.714$; $F=9.575$; $p=0.000$) ($n=164$)

Vitality characteristics	β	p
1. Control	0,416	0,000
2. Acceptance of risk	0,344	0,001



difficult life situations as an opportunity to gain useful experience. Obviously, athletes who are convinced that in life's difficulties one must act actively, and not give up, implement such an approach in overcoming the difficulties of the competition, which ultimately allows them to perform more successfully.

Conclusions. The results of the study showed that an increase in the level of hardiness characteristics contributes to the improvement in athletes of volitional regulation and awareness of self-management by cognitive processes and emotions in competition conditions. At the same time, the formation of resilience does not affect the regulation of competitive activity motivation. The effectiveness of mental self-regulation in situations of competition is related to the level of control, and both control and risk taking are of the greatest importance for the successful implementation of preparedness for competitions.

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