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PSYCHOLOGICAL CHARACTERISTICS RELATED TO ATHLETE'S MOTIVATION IN COVID-19 PANDEMIC CONDITIONS

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ABSTRACT

COVID-19 pandemic caused a number of restrictions and changes in training and competitive activities among active athletes. In this relation, the issue of the influence of these changes on motivation and well-being became very topical. **Purpose:** The aim of this research was to examine the impact of these changes and personal characteristics related to them. **Methods:** The research was done among 129 athletes practicing different sports (individual, team, single combat) - 88 women, 41 men aged between 12 and 40 years, with sports experience from 1 to 15 years. We used five psychological questionnaires to measure well-being, resilience, goal orientation, sense of mastery, and long-term motivation. **Results:** We revealed statistically significant differences in ego-orientation according to gender, age and sport; in task-orientation according to sport; in sense of mastery according of age. The researched individuals were characterized with an average to high level of long-term motivation, and with high level of sense of mastery, and well-being. Their level of resilience was within the norms for Bulgaria. **Conclusions:** The changes due to COVID-19 pandemic did not lead to negative consequences for athletes' motivation.

Key words: resilience, goal orientation, sense of mastery, well-being, sports.

INTRODUCTION

COVID-19 pandemic caused a number of restrictions and changes in training and competitive activities among active athletes. In this relation, the issue of the influence of these changes on motivation and well-being has become very topical.

Long-term objectives are one of the necessary premises for organizing and maintaining psychic wellbeing (1). They are also in the basis of building one's own identity and outlining one's own life course in the general flow of social life. The presence of long-term objectives provides individuals with a sense of organization and meaning by making them more stable to stress influences and increases their load endurance. Long-term life objectives provide a framework which is personally perceived and subjectively important and because of that has a motivational function (2). Sports activities are based on long-term motivation, on goals set and fulfilled over a prolonged period of time. An example for that is the macrocycles (four or more yearly cycles for preparation and participation in the Olympic Games) of elite athletes. Athletes' daily efforts are the beginning and the way for achieving these main goals. The situation related to COVID 19 had a significant influence on the routine preparation of athletes practicing different kinds of sports worldwide. The sense underlying in the basis of their daily efforts in the training process was shaken and led to a number of issues related to their future sports realization. The threat of not

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holding an important and key forum, such as the Olympic Games, made elite athletes and their coaches face the dilemma how to continue their preparation and what the meaning of their everyday efforts was in conditions of restrictions, social distancing, and disrupted training and competitive process.

The conditions of uncertainty during the restrictions imposed by the pandemic provoked people's mental abilities and stress resilience. Many high-level athletes also faced disruptions to study, job loss and sub-sequent decreased income, further increasing their risk of suffering mental health issues (3). Resilience can subsequently be thought of as "the role of mental processes and behaviour in promoting personal assets and protecting an individual from the potential negative effect of stressors" (4). Resilience is important to investigate alongside responses to COVID-19 stressors as higher resilience positively relates to greater quality of life (5), directly affects psychological and physical ill-health and indirectly affects the perception of stressors (6). Mastery is a psychological resource that has been defined as "the extent to which one regards one's life-chances as being under one's own control in contrast to being fatalistically ruled" (7) it is very important psychological construct to provide a protective buffer for individuals' mental and physical health and well-being, when facing persistent life stresses, such as economic and occupational hardships (7).

In relation to the above-mentioned, we assume that athletes' long-term motivation will be affected negatively in the conditions of the pandemic COVID-19, which will lead to a deterioration in the preparation and to competitors' lack of satisfaction.

The aim of the study is to establish the influence and interrelations between the psychological aspects of: long-term motivation, well-being, ego-resilience, sense of mastery and goal orientation among athletes from different sports, during COVID-19 conditions.

In order to fulfill the aim of the research we set the following tasks: to determine the levels of the researched psychological characteristics of athletes from different kind of sports (individual, combat and team); to establish whether there is a difference between the research variables of the examined factors: gender, age, practice experience, kind of sport, and level of qualification; to establish the existence of different relations and interdependencies between the studied variables.

The research was done among 129 athletes practicing different sports (individual, team, single combat) - 88 women, 41 men aged between 12 and 40 years, with sports experience from 1 to 15 years. The demographics information is shown in **Table 1.**

METHODS

The data were collected with anonymous, self-reported electronic questionnaires, at the first two weeks of November 2020, one week before the new pandemic limitations for athletes (under 18 years old) was put down from the Bulgarian Government. The following methods were used to accomplish the tasks, achieve the goal and verify the reliability of the hypothesis: theoretical analysis; mathematical-statistical methods: SPSS 23 - variation, comparative (U-criterion of Mann-Whitney, H - Criterion of Kruskal-Wallis), correlation and regression analysis. We used five psychological questionnaires to measure well-being, ego-resilience, goal orientation, sense of mastery, and long-term motivation: 1) Pearlin Mastery Scale (7) Bulgarian adaptation by Ganeva (8). The scale measures the extent to which an individual regards their life chances as being under their personal control rather than fatalistically ruled. The scale include 7 items. Each of the seven items is rated on a 4-point Likert scale from 1 "Strongly disagree" to 4 "Strongly agree". 2) ER89 scale for measuring ego-resiliency (9) Bulgarian version by Zsheliaskova-Koynova, Misheva-Aleksova, Chervenkova (10). The ER 89 measure is premised on the phenomenon of human adaptability, defined as the dynamic capacity of an individual to modify ego-control as a function of the demand characteristics of the environmental context in order to preserve or enhance system equilibration. This individual capacity is thought to underlie motivational control and resourceful adaptation, reflecting a relatively stable aspect of personality. It consists of 14 items, each responded to on a 4-point scale from 1=does not apply at all, 2=applies slightly,

if at all, 3=applies somewhat, and 4=applies very strong. *3) WHO-5, Well-being Index* - short questionnaire covering 5 positive items, related to positive mood, vitality, and general interests (being interested in things). Each of the five items is rated on a 6-point Likert scale from 0 (= not present) to 5 (= constantly present). Higher scores signify higher level of well-being (11). 4) Task and Ego Orientation in Sport Questionnaire (TEOSQ) (12), Bulgarian adaptation by Galina Domuschieva-Rogleva (13). It is 13-item questionnaire designed to assess task (7 items) and ego (6 items) orientations. Responses are indicated on a 5-point Likert-type scale with 1=strongly disagree and 5=strongly agree. 5) Long-term Motivation of Individual Behavior (1). The scale measures the motivational attitude to particular events and relations in the daily round refracted through people's own subjective experience, coherence and sense of meaning of their life. It consists of 10 items. Responses are indicated on a 7-point Likert-type scale.

Table 1. *Researched individuals differentiated in groups*

		N
Gender	Women	88
	Men	41
Age	12 - 15	48
	16 – 17	38
	18 – 21	28
	over 22	15
Practice experience	up to 1 year	11
	2 – 3 years	21
	4 – 6 years	44
	7 – 9 years	25
	over 10 years	28
Sports	Individual	39
	Combat	37
	Team	53
Level of qualification in Bulgarian National Championships	Medalists	77
	Finalists 4^{th} – 8^{th} place	28
	After 8^{th} place	17
	Non participants	7

RESULTS AND ANALYSIS

The variational analysis showed that researched individuals are characterized with high levels of sense of mastery, and well-being (Table 2), and an average to high level of long-term motivation. According to Campbell (1958) the sense of mastery is directly related to well-being of personality. People showing high values of sense for control fell more satisfied with their life and experience positive feelings more often (14) and in this relation, most probably, the researched athletes did not experience negative feelings in the extent we would expect them to because of the imposed restrictions. The value of ego-resilience was within the norms for Bulgaria (M=45,41; SD=4,92) (11). Since ego-resilience is perceived as a stable personality trait, and the researched athletes had average to high values along this indicator, we can assume this is one of the premises for preserving the positive attitude and satisfaction with the everyday activities related to the training process no matter how much it was changed due to the emergency situation. Preserving one's calmness and maintain one's focus on the long-term objectives creates a structure in athletes' daily round and

supports the meaning of their efforts while they expect their future realization over time. We should not omit the fact that most of the subjects (n=77) out of 129 athletes were medal holders, which could be another reason for the higher values of their ego-resilience and adaptability because this is one of the prerequisites for a quick psychic recovery and positive coping with stress in conditions of elite sport and high performance. The researched athletes had a more expressed task than ego orientation **(Table 2).**

Table 2. *Mean variables for the whole group*

	N	Min	Max	Mean	SD
Ego-resilience	129	37,00	55,00	45,88	3,95
Well-being	129	8,00	100,00	62,42	22,81
Sense of mastery	129	13,00	35,00	26,27	4,92
Long-term motivation	129	28,00	65,00	49,52	7,23
Task orientation	129	1,00	5,00	4,23	,75
Ego orientation	129	0,83	5,00	2,29	1,06

The comparative analysis by practice experience and level of qualification (in Bulgarian National Championships) (Kruskal-Wallis) didn't show statistically significant differences. But there was statistically significant differences between the researched variables differentiated by gender in relation to ego orientation (*U*=1320.00; p =0.014). Men showed higher results (M=2.57; SD=0.97) compared to the group of women (M=2.16; SD=1.08), which was confirmed in other research in sport (15-17). Because ego orientation is connected to the comparison of one's own abilities with those of others, success or failure is a result of superiority over others and victory is sought at any cost. The higher values of this indicator among men could be a premise for termination of sports-competitive activity if, as a result of the pandemic COVID-19, the athletes do not have any opportunity to show their paces as well as to dominate their rivals and their achievement motivation depends on this. According to Duda (1989) lack of continuous success leads to termination of sports-competitive activity (18). Statistically significant differences were also found in participants, differentiated according to age in relation to sense of mastery (χ^2 (3)=9.89; p=0.020) and in ego orientation (χ^2 (3)=11.23; p=0.011). Lowest levels of sense of mastery and ego-orientation are found in youngest group (12-15 years) and highest results are revealed in each older group **(Table 3).**

Table 3. *Mean variables by age*

Variables	N	Ego-resilience		Well-being		Sense of mastery		Long-term motivation		Task-orientation		Ego-orientation	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
12 – 15 years	48	45.40	4.34	45.37	3.07	**24.85**	**4.81**	50.81	7.25	4.21	0.73	**1.94**	**0.97**
16-17 years	38	45.37	3.07	62.21	22.55	**27.03**	**3.73**	48.45	7.56	4.36	0.72	**2.38**	**1.04**
18-21 years	28	46.29	4.26	59.43	21.24	**26.14**	**6.40**	48.18	6.89	4.10	0.70	**2.63**	**1.03**
over 22 years	15	47.93	3.61	64.80	20.13	**29.13**	**3.29**	50.60	6.71	4.20	0.97	**2.56**	**1.20**

We found statistically significant differences between the researched variables differentiated by sport (individual, combat, team) in relation to task (χ^2 (2) = 6.31; p=0.043) and ego orientation (χ^2 (2)=6.86; p=0.032) **(Table 4).** Our results differ from those found in other surveys (19).

Table 4. *Mean variables by sport*

Variables	N	Task-orientation		Ego-orientation	
		Mean	SD	Mean	SD
Combat	37	4.26	0.79	2.31	1.11
Individual	39	4.05	0.76	2.56	1.00
Team	53	4.34	0.70	2.07	1.04

In the three groups of sports, task orientation was leading compared to that of ego orientation.

In order to reveal and analyze the relationships and the interdependencies between the studied variables, we applied a correlation analysis (Spearman criterion), which showed that ego-resilience was related to sense of mastery (r=0.290; p=0.001), long-term motivation (r=0.274; p=0.002), task and ego orientations (r=0.272; p=0.002); well-being correlated with sense of mastery (r=0.355; p=0.000) and long-term motivation (r=0.540; p=0.000) of researched athletes; sense of mastery positively correlated with long-term motivation (r=0.493; p=0.000) and task orientation (r=0.284; p=0.001), and task orientation had positive relation with ego orientation (r=0.191; p=0.030).

The revealed positive interrelations among task orientation and ego-resilience, sense of mastery and long-term motivation showed that athletes who have such a predominant task orientation and strive for performing activities in order to master them and to improve their personal skills will have more stable long-term goals as well as stronger subjective sense of control as regards their realization. It is considered that task orientation leads to a positive and adaptive behavior aimed at achievements. Such athletes tend to try new and stimulating tasks, are willing to do their best both in training and in competition (20).

In conformity with the aim of the research a step regression analysis was used. In the first model the dependent variables are the levels of long-term motivation. The independent variables are the levels of all other researched variables. We found out that long-term motivation increased when the well-being (β=0. 408; p=0.000), and sense of mastery increased (β=0.327; p=0.000) **(Table 5**). Long-term motivation is positively influenced by well-being and the sense of mastery. The higher they are, the higher the level of long-term motivation is. The next model analyzes the influence of researched variables (long-term motivation, ego-resilience, task and ego orientations and sense of mastery) on the level of athlete's well-being. The results from the analysis give a reason to believe that well-being increases with high levels of long-term motivation (β=0.522; p=0.000).

Table 5. *Results from the regression analysis*

Independent variable	Long-term motivation			
	B	*t*	*Sig.*	*Δ R²*
Well-being	.408	5.385	.000	.267
Sense of mastery	.327	4.324	.000	.356
	Well-being			
	B	*t*	*Sig.*	*Δ R²*
Long-term motivation	.522	6.894	.000	.272

A more strongly expressed long-term motivation leads to a bigger satisfaction and feeling of success among the researched athletes. This means that creating meaning in the everyday efforts of athletes, the regular setting of short-

term and long-term goals will increase their well-being as well.

CONCLUSION

The conditions in which this research was done were a period of restrictions related to COVID-19 in Bulgaria and they were definitely not the same as the conditions in which athletes usually prepare and practice their sporting activities and participate in competitions. Because of this, the results obtained from this research are important and add to a number of surveys published last year on ego-resilience, motivation, stress and anxiety, preparation conditions (21-23), and so on in the field of sport and sports psychology. The obtained results contradict our hypothesis that the expected athletes' long-term motivation would decrease, and their satisfaction would be reduced due to the imposed restrictions. Despite the grave and unclear life conditions (lack of a normal training process, termination of participation in competitions, financial and professional uncertainty, physical distancing, wearing protective gear, etc.) athletes manage to maintain their long-term motivation on a relative high level, have the feeling of satisfaction with their lives (they have above the average results for well-being), and also possess a high level of sense of control over life situations.

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