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Research Results
Резултати от научни изследвания

PSYCHOLOGICAL CAPITAL, NEED FOR SECURITY, COPING STRATEGIES OF SPORTS STUDENTS IN CONDITIONS OF COVID-19

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Abstract. The pandemic COVID 19 has posed unprecedented ordeals before the field of sport and education in the last two years. The majority of the research in the field of sports psychology has been related to the psychological consequences from the pandemic. There have been few surveys connected with the psychological determinants of behavior and personal safety prevention.

The aim of this study was to investigate the Psychological Capital, Need for Security and their relation to the preferred Coping Strategies during the pandemic COVID-19 among sports students from Bulgaria and to outline their specificity depending on gender, kind of sport, and level of qualification.

The research was done among 106 sports students aged between 18 and 34 years. For the purposes of the research the participants were divided into groups according to their gender, kind of sport, and level of qualification.

The research methods included: 1) Psychological Capital Questionnere (Luthans, Youssef, Avolio 2007); 2) Methods of Researching the Need for Security in Human Behaviour (Velichkov, Radoslavova, Vasileva, Todorov 1998); 3) Approach to Coping in Sport Questionnaire (ACSQ-1; Kim 1999; Kim & Duda 1997).

There were significant differences depending on gender, and kind of sport. There were significant correlations between the components of psychological capital and the strategies: emotional calming, cognitive restructuring, and behavioral risk, between self-efficacy and need for security.

Keywords: Sports students; Psychological Capital; need for security; coping strategies; COVID-19

Introduction

The pandemic COVID-19 has posed an unprecedented ordeal to the whole world in the last two years. It has changed people's usual way of life and affected all spheres, including sport. Social isolation, as a consequence from the imposed lockdown, on the one hand, is crucial for preserving people's health and life, but on the other hand, it may affect significantly psyche, especially if it lasts for a longer

period (Brooks et al. 2020) and lead to a number of negative psychological effects – depression, increased anxiety, aggressive reactions, risky behavior, etc.

The field of sport has been one of the most affected – in sports-technical, educational, and psychological aspect. The cancellation of the whole sports calendar at first, including the most prominent event – the Summer Olympic Games in Tokyo, 2020, the restrictions in the training and competitive activities affected each link in the chain of sporting activities – athletes, coaches, sports-technical teams, media, business, sports education.

The analysis of the scientific publications in the field of sports psychology shows that most of them are aimed at the psychological consequences of the pandemic – athletes' behavior in conditions of self-isolation – regulation of emotions, overcoming stress, resilience, psychic health and wellbeing, athletes as role models and motivators of behavior during the pandemic (MacIntyre et al. 2020), perceiving risk and uncertainty related to the pandemic, the role of social influence, behavior, emotions, stress, overcoming, wellbeing and social trust, emotional reactions of communication (Sokolowska, Ayton and Brandstätter 2020). Jesus de la Fuente et al. (2020) researched different behavior changes in the organization of personal, family, and academic life during COVID-19 and the need for adaptation of teachers, students, and family members. Wang, Wang, Yang (2020) pointed out that COVID-19 not only affected the physical health of Chinese people, but also their psychological health. Van Bavel et al. (2020) paid attention to the significance of the surveys and integration of efforts in studying the consequences of the pandemic on people's behavior. Schinke, Papaioannou, Henriksen, Si, Zhang, & Haberl (2020) emphasized on a lot of problems and possibilities according to sports psychologists related to sports indicators, physical activity, and health in conditions of COVID-19. Zhou, K et al. (2020) analyzed the emotions and coping strategies used by people in conditions of pandemic. Other authors (Leguizamo, et al., 2020, Iancheva et al., 2020, Iancheva, 2020) analyzed the connection between perfectionism and anxiety with indicators of psychic health (behavior, depression, anxiety, and stress) and coping strategies among athletes during the pandemic COVID-19.

The psychological determinants of behavior in conditions of the pandemic COVID-19 and the related restrictions have been relatively weakly researched. This directed our survey towards examining the relationship among psychological capital of a person, need for security, and coping strategies.

Psychological capital is defined as an individual positive condition and development and is characterized with: 1) Existence of confidence and self-efficacy in order to take and direct the needed actions for success in challenging tasks and situations; 2) Existence of optimism (positive attribution about succeeding now and in future); 3) Hope – perseverance in one's aims and their achievement and redirecting the ways and means for achieving these goals in order to succeed; 4)

Flexibility and resilience needed when people are anxious and facing problems, troubles, and failures in order to be resistant and recover quickly, go on and achieve success (Luthans, Youssef, Avolio 2007; Luthans, Youssef-Morgan, Avolio 2015, Ilieva 2019, 2021).

Psychological capital is a high-class positive constructor (Ilieva 2019), strongly related to tasks accomplishment and goal achievement. It comprises four main components – self-efficacy/confidence, optimism, hope, and resilience. Hope is related to labor, job satisfaction, the sense of belonging to organizations, and feeling of happiness in one's job (Youssef, Luthans 2007). Self-efficacy supposes setting high aims, aspiration towards hard tasks and seeking challenges, high self-motivation, investing time and efforts for achieving one's goals regardless the obstacles and difficulties on the way (Luthans, Youssef-Morgan, Avolio 2015, p. 51). Optimism regards the overall positive expectations of a person in times of uncertainty and changes. Resilience or stability is related to the positive adaptation to risky factors or in risky situations.

Psychological capital is a positive resource with a leading role in academic achievements and students' adaptation (Liran, Miller 2019).

Stress is considered a psycho-physiological response which appears when people think their personal resources are inappropriate for the successful execution of a certain task (Lazarus & Folkman, 1984). They need high adaptive levels of coping strategies in order to maintain their psychological wellbeing and efficiency (Gram, Jæger, Liu, Qing, & Wu 2013; Meneghel 2014). In the conditions of the pandemic COVID-19 this issue is especially important. The positive reformulation generates positive emotions which help the recovery of psychological resources and motivation needed for perseverance in fulfillment of one's aims (Folkman 2008, 2009, 2010; Lazarus 2006). Riolli et al. (2012) supposed that Psychological Capital might be related to more positive and less negative cognitive assessments of stress.

Psychological capital is crucial in conditions of prolonged crises. The feeling of "loss and lack of control" may reduce people's confidence at organizations and make them feel hopeless and pessimistic, to weaken their flexibility, resilience, and abilities to cope (Luthans, Youssef, Avolio 2007).

Need for security is related to the basic motivation of a person. It is one of the personal parameters affecting greatly the coping strategies, the process of adaptation, especially in situations with potential danger, tension, and risk. Stable individual differences in emotional reactions against threatening stimuli, in the strength people experience positive and negative emotions at different level of need and security have been established (Larsen, Billings, Culter 1996), as well as in the choice of behavior strategies in situations of potential risk (Velichkov, Vasileva 2000). Persons with high need for security tend to use more diverse coping strategies, most often support from others. Those with low need for security are

oriented mostly towards ignoring the threat and seeking their own means for coping with the situation.

From this point of view, it is interesting to examine psychological capital as a positive personal resource, need for security and their connection with the coping strategies. We can assume that psychological capital correlated positively and stimulates positive coping strategies in conditions of the pandemic COVID-19.

The aim of this study was to investigate the Psychological Capital, need for security and their relation to the preferred coping strategies during the pandemic COVID-19 among sports students from Bulgaria and to outline their specificity depending on gender, kind of sport, and level of qualification.

Materials and methods

Participants

The research was done among 106 sports students aged between 18 and 34 years. For the purposes of the research the participants were divided into groups according to their gender (50 men and 56 women), kind of sport (rhythmic gymnastics, athletics, football, tennis, taekwondo, basketball, volleyball), level of qualification (competing in: university and regional competitions, national championships, international competition).

The survey was carried out online in Bulgaria over the period 13 March – 20 April, 2021 in conditions of emergency situation in relation to the pandemic COVID-19. All subjects were studying online in this period.

At the beginning of the research all participants were informed about the aim of the survey and their consent was obtained.

Instruments

In order to fulfil the aim of the research we used complex methods including:

Psychological Capital Questionnaire **-** includes 24 statements grouped in four scales – self-efficacy, hope, optimism, and resilience (Luthans, Youssef, Avolio 2007). The coefficient of internal consistency Cronbach alfa in this research is 0.93.

Methods of Researching the Need for Security in Human Behaviour (Velichkov, Radoslavova, Vasileva, Todorov 1998).

Approach to Coping in Sport Questionnaire (ACSQ-1; Kim 1999; Kim & Duda 1997) was used its Spanish version (Kim, Duda, Tomás, & Balaguer 2003). This scale contains 28 items answered in Likert type from 1 (never) to 5 (always). The five dimensions of coping assessed are: *emotional calming*, *active planning/cognitive restructuring*, *mental withdrawal*, *seeking social support,* and *behavioral risk*.

Statistical Analysis

In order to process the initial data from the research we used the statistical program SPSS 21, and did a descriptive analysis, correlation analysis, comparative analysis (U-criterion of Mann-Whitney and Criterion of Kruskal-Wallis), and step regression analysis.

Results and analysis

The results from descriptive statistics revealed that Hope among the researched students (M=4.39) as a component of Psychological Capital was with the highest values (Table 1). This outlines favorable expectations about the future development connected with faith in the ways of achieving one's goals, taking initiative, planning. This is followed by Self-Efficacy (M=4.17) – assurance in one's own abilities to mobilize cognitive resources, and optimism (M=4.09), related to flexible and realistic prospects about oneself, optimistic way of thinking and acting. Resilience was with the lowest values (M=3.98) – the ability of a person to cope with difficulties and failures and to set positive changes into motion.

Table 1. Descriptive statistics of study variables

	N	Mean	SD	Min	Max
Self-efficacy	106	4.1717	.67910	2.40	5.00
Optimism	106	4.0870	.52094	2.30	4.80
Hope	106	4.3891	.40400	3.50	5.00
Resiliency	106	3.9783	.58572	1.00	4.50
Emotional calming (EC)	106	3.5543	.76266	2.00	4.70
Active planning/Cognitive restructuring (CR)	106	3.9978	.84024	1.70	5.00
Mental withdrawal (MW)	106	1.7500	.65887	1.00	3.80
Behavioral risk (BR)	106	2.2674	.95127	1.00	4.20
Seeking social support (SSS)	106	2.3587	.1.0225	1.00	4.60
Need for security	106	13.087	2.4928	7.00	18.00

One of the tasks of our research was to investigate how the researched individuals coped with the current situation of self-isolation and lack of normal sports-competitive and educational activities.

Active planning, Cognitive restructuring (M=3.99) and Emotional calming (M=3.55) were dominant in the sample we researched (Table 1). Sports students tried to get the positive out of the situation, to learn something new, to restructure their goals. They tried to block the negative thoughts, to keep their positive emotional state so that they could counter the problem and concentrate on important things. They showed a weaker proneness to Seeking social support (M=2.36) from their coaches, psychologists, parents, friends to cope with the problem. They are followed by Behavioral risk (M=2.27). Mental withdrawal (M=1.75) received the lowest score – they did not quit trying to achieve their goals, get reconciled with the situation nor did they refuse to be active.

We established relatively high values (Table 1) of Need for Security – M = 13.09. To compare, the mean value for the Bulgarian sample is M = 11.54 (Velichkov et al. 1998). The researched athletes tend to seek others' support and use more diverse coping strategies in situations of threat, risk, uncertainty, such as the pandemic COVID-19.

The comparative analysis of the data did not find significant differences along the researched indicators depending on qualification.

There were statistically significant differences along the factor sport in four of the researched indicators – Self-efficacy, Hope, Emotional calming, and Cognitive restructuring (Table 2).

Table 2. Results from the comparative analysis along the factor sport

	Self-efficacy	Hope	Emotional calming	Cognitive restructuring
Chi-Square	13.890	12.756	15.395	12.778
df	6	6	6	6
Asymp. Sig.	.031	.047	.017	.042

The comparative analysis revealed significant gender differences along 2 of the researched indicators (Table 3). The women from the researched sample had significantly higher values for Emotional calming, and Cognitive restructuring. They tried to get the positive out of the situation, to learn something new, to restructure their goals. The obtained results confirm the data from our previous surveys (Iancheva et al. 2020; Iancheva 2020).

Table 3. Results from the comparative analysis along the factor gender

	Emotional calming	Cognitive restructuring
Mann-Whitney U	136.500	138.000
Wilcoxon W	367.500	369.000
Z	-2.785	-2.766
Asymp. Sig. (2-tailed)	.005	.006

One of the tasks of our study is to examine the interrelations between psychological capital and preferred coping strategies in conditions of the pandemic COVID-19.

The results from correlation analysis of the data revealed significant relations between the subscales of Psychological Capital, Need for security, and Coping strategies (Table 4).

Table 4. Results from correlation analysis

Coping strategies		**Psychological**	**Capital**
	Self-efficacy	Optimism	Hope
Emotional calming	r = .429**	r = .514**	r = .382**
Cognitive restructuring			r = .297*
Behavioral risk	r = .292*	r = .360**	
Need for security	r = -.361**		

We established significant correlation dependencies (Table 4) between Self-efficacy**,** Emotional calming (r = .429**), and Behavioral risk (r = .292*), between Optimism, Emotional calming (r = .514**), and Behavioral risk (r = .360**), between Hope, Emotional calming (r = .382**), and Cognitive restructuring (r = .297*). We established a negative correlation between need for security and Self-Efficacy (r = -.361**), i.e., sports students with higher levels of self-efficacy have lower values of need for security; they feel more confident in situations of uncertainty and risk and rely mostly on themselves.

The data showed that Resilience, as a characteristic of psychological capital, did not interact with coping strategies. The strategies Seeking social support and Mental withdrawal did not interact with the scales of psychological capital.

In order to check our hypothesis about the role of psychological capital as a predictor of the preferred coping strategies in the conditions of COVID-19, we applied a step regression analysis. (Table 5).

Table 5. Results from Regression analysis

Coping strategies	**Self-efficacy**			
	β	t	Sig.	ΔR^2
Emotional calming	.429	3.151	.003	.184
Need for security	-.305	-2.328	.005	.166
	Optimism			
	β	t	Sig.	ΔR^2
Emotional calming	.514	3.971	.000	.248
	Hope			
	β	t	Sig.	ΔR^2
Emotional calming	.382	2.742	.006	.127

The results from the regression analysis partially confirmed the results received from the correlation analysis. The data showed that the components of psychological

capital Self-efficacy, Optimism and Hope were predictors of Emotional calming as a coping strategy. Self-efficacy determined the Need for Security. The high levels of self-efficacy were related to low values of need for security.

Discussion

The pandemic COVID 19 has changed people's usual way of life, including sports students. Life in an isolated environment, the restrictions regarding practicing sports and attending universities, social isolation, uncertain prospects, and fear of the disease have led to an abrupt change in their rhythm of life and a necessity to adapt.

The prevailing part of the publications in the field of sports psychology in the last two years have been directed towards examining the psychological consequences from the pandemic COVID-19 – the way sports students react, experience, and cope with this situation (MacIntyre et al. 2020; Sokolowska et al. 2020; Jesus de la Fuente et al. 2020; Wang, Wang, Yang 2020; Van Bavel et al. 2020; Schinke et al. 2020; Zhou et al. 2020; Leguizamo, et al. 2020; Iancheva et al. 2020; Iancheva 2020). The psychological determinants of behavior in conditions of the pandemic COVID 19 have been very weakly surveyed.

Our hypothesis that the components of psychological capital of a person and the need for security can be viewed as determinants of behavior and the choice of preferred coping strategies in conditions of COVID 19 was partially confirmed. The researched students had the highest values along the scale Hope which is a valuable psychological resource (Luthans, Youssef, Avolio 2007; Luthans, Youssef-Morgan, Avolio 2015). According to some data taken from the literature on the subject, Hope is related to development of independence, internal focus of control, high degree of autonomy and need for achievement and development, creativity, tendency to untraditional decisions and risk taking (Luthans, Youssef-Morgan, Avolio 2015; Ilieva 2019). The results from the correlation analysis of the data from our research revealed significant relations between Hope and the strategies Emotional calming and Cognitive restructuring. The athletes with high level of hope prefer positive strategies for coping with the situation. They restructure their goals, try to block their negative thoughts, and concentrate on the important things.

High values can also be observed along the scales Self-efficacy, which reflects the professional self-assessment and supposes high motivation and goal orientation, and Optimism, related to an optimistic way of thinking and flexibility of actions. We established significant correlations between self-efficacy, optimism, and the strategies Emotional calming and Behavioral risk. The athletes with high levels of self-efficacy and optimism tend to choose positive coping strategies but also take riskier decisions and behavior patterns.

The data from the regression analysis revealed that the components of psychological capital: self-efficacy, hope and optimism affect the choice of

Emotional calming as a coping strategy. Self-efficacy influences Need for security. When there are high levels of self-efficacy, we observe low values of need for security, i.e., athletes are oriented mostly towards ignoring the threat and seeking their own resources to cope with the situation.

The comparative analysis of the data revealed significant differences among the factors gender, and kind of sport.

The women in the researched sample had significantly higher values for Emotional calming, and Cognitive restructuring. Women use positive strategies for coping with the pandemic to a larger extent than men. They try to restructure their goals and seek new solutions.

We established significant differences along the factor sport and the indicators Self-efficacy, Hope, Emotional calming, and Cognitive restructuring. The researched students-athletes had the highest values along all indicators.

The obtained results from our research are a good starting point for revealing the psychological determinants of behavior and the preferred strategies for coping in conditions of pandemics, crises, and risky situations. They can be a valuable reference point in planning and implementing prevention measures and in seeking efficient behavior strategies. The data from our research make us believe that increasing a person's psychological capital creates opportunities for stimulation of positive coping strategies, restructuring of one's goals, tendency to riskier behavior decisions, and in this way to a more efficient coping with critical and risky situations such as the pandemic COVID-19.

LIMITATIONS

This research has a few limitations - the number of the researched sample and the fact it was carried out online. A wider scope of research would allow for a more in-depth analysis and interpretation.

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