



Research Article

„You Can Run but You Can't Hide “ – The Role of Avoidant Coping in Mental Health of Athletes during COVID-19 Pandemic

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ABSTRACT

This study aimed to investigate the psychological functioning of athletes in Serbia during the second wave of the COVID-19 pandemic. We investigated the relationships of different coping strategies (problem-focused, emotion-focused, and avoidant coping), intolerance of uncertainty, and perceived levels of depression, anxiety, and stress. A total of 117 athletes took part in this study (62.40% male, average age 29.95). The results showed that the use of avoidant coping and problem-focused strategies were associated with poorer indicators of mental health. Furthermore, intolerance of uncertainty had both direct and indirect (via avoidant coping strategies) effects on experienced levels of depression, anxiety, and stress.

Keywords: coping strategies, COVID-19, athletes, mental health, intolerance of uncertainty

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Introduction

COVID-19 outbreak completely changed our daily lives, affecting not only health but all domains of human functioning. The World Health Organization (WHO, 2020) declared a global pandemic and many countries across the world introduced various restrictive measures (e.g., social distancing, self-isolation, and quarantine of those who were exposed to COVID-19) in order to get control over the spreading of coronavirus disease. Many sports events (including Olympic games) were postponed or completely canceled, which affected the professional and private goals of many professional athletes. COVID-19 pandemic also greatly affected mental health of people across the globe. Participants from general population reported higher level of anxiety and distress (Keeter, 2020; Liu et al. 2020), insomnia (Voitsidis et al., 2020) or even symptoms of posttraumatic stress (Liu et al. 2020; González-Sanguino et al., 2020). While some studies, conducted before COVID-19 pandemic, suggest that athletes are showing fewer signs of depression compared with non-athletes (Brand et al., 2013) there is also evidence that professional athletes are also experiencing various mental health symptoms and disorders at the same or even higher extent compared to non-athletes (e.g., Readon et al. 2019).

Mental health of athletes during COVID-19 pandemic

In the context of global pandemic, athletes were facing direct effects of the pandemic such as potential illness, death of loved ones or fear of their own mortality, social isolation, and loss of personal freedom; and sport-specific effects such as losing job and career opportunity due to delay or cancellation of important sport events, losing or lack of sponsorship that affected financial status and living conditions, etc. Additionally, many countries banned sports activities, which could also be one of the factors that contribute to the mental and physical health of athletes and physically active people, as there is a well-documented relationship between exercise and mental health. For example, it was shown that physical activity is one of the factors that could reduce levels of post-traumatic stress, depression, and anxiety (Leard Mann

et al., 2011; Mammen & Faulkner, 2013; Schuch et al., 2019). Finally, people could use different sports activities to better cope with ongoing pandemic and related stress and in situations where sports activities were banned, they had to come up with different alternative strategies.

In one of the studies that investigated the psychological functioning of athletes during the COVID-19 outbreak (Şenişik et al., 2021) it was shown that the general distress (measured as total score on The Depression, Anxiety, and Stress Scale [DASS-21; Lovibond & Lovibond, 1995]) was significantly lower among athletes compared to non-athletes. Another study conducted in Serbia (Sokić et al., 2021) showed negative association between training and distress. Namely, professional athletes, as well as those with a high level of physical activities, experienced less distress during the outbreak of the pandemic and curfew. Interestingly, it was shown that professional athletes who changed their training routine experienced lower levels of anxiety compared to recreational athletes who did not change their training routine and recreational athletes who did change it (Sokić et al., 2021). The authors of this study explained that in the time of a global pandemic it seems that physical activity does not provide additional benefits for mental health (Sokić et al., 2021). On the other hand, elite athletes might be more resilient compared to other groups and that could help them to better adjust even during crisis.

Coping strategies and mental health during COVID-19 pandemic

As we already mentioned, exercise has many positive effects on mental health (Brand et al., 2013; Mikkelsen et al., 2017). We are learning more and more about the psychological, but also biochemical mechanisms, through which exercise and physical activity have a positive effect on mental health and mood. However, when dealing with stressful events such as pandemic, our coping strategies could probably explain why some people handle stressful events better than the others. The relationship between the use of coping strategies and psychological functioning was also investigated in the context of the COVID-19 pandemic. Nevertheless, these studies showed

mixed results regarding the relationship between coping strategies and mental health. For example, some studies showed (e.g., Guo et al., 2020) that problem-focused strategies are associated with fewer mental health issues while the opposite trend was observed for emotion-focused coping strategies. Contrary, another study (Li, 2020) suggested that using both problem-focused and emotion-focused strategies is associated with better psychological status while only usage of problem-focused strategies was linked with higher PTSD symptoms. Furthermore, it was shown that positive thinking, active coping, and social support are positively associated with well-being and negatively with stress, anxiety, and depression (Budimir et al., 2021). Also, avoiding thinking about issues or struggling to cope was associated with higher levels of depression and anxiety (Kar et al., 2021). The study conducted with the athlete population in Serbia at the beginning of the pandemic showed that emotion-focused and avoidant coping strategies were associated with worse mental health while problem-focused strategies were negatively associated with depression and anxiety (Popov et al., 2021). However, it is important to note that all these studies were conducted during the first wave of the pandemic. One study which was conducted during the second wave of the pandemic in Japan (Fukase et al., 2021) showed that certain coping strategies were associated with depression. Those strategies were: planning, use of instrumental support, denial, behavioral disengagement, and self-blame. Planning and instrumental support could be classified as problem-focused strategies, while the rest belong to the group of avoidant coping strategies.

Our study was conducted in the period from December 2020 to the first week of March 2021. At that time, many athletes continued with their regular activities. Some of the competitions were even re-established, although there was still a lot of uncertainty (e.g., it was not yet sure if the Olympic games would be held or not), since it was unknown in which direction the pandemic would go. In such a situation, athletes had limited control over their professional future, as they could only take precautionary measures and keep training, while decisions about holding sports events were out of their control. When it seems hard or impossible to control a

problem in a highly uncertain situation, use of different coping strategies could be more or less effective. Although it is often assumed that using problem-focused strategies is associated with better mental health in some extreme situation (such as global pandemic) that is not necessarily true. For example, a study that investigated the association between coping strategies and adjustment in the low-control situation (e.g., Terry & Haynes, 1998) showed that problem-focused management and avoidant coping strategies were associated with poorer outcomes while emotion-focused ones were related to more positive outcomes.

Intolerance of uncertainty, coping strategies, and mental health

In the times of global crises such as pandemics, which generally bring heightened levels of fear and uncertainty, one of the constructs which can facilitate understanding of the human capacity to deal with such circumstances is intolerance of uncertainty (IU). This concept could be defined as “an individual’s dispositional incapacity to endure the aversive response triggered by the perceived absence of salient, key, or sufficient information, and sustained by the associated perception of uncertainty” (Carleton, 2015, p. 31). Previous studies confirmed the relation between high IU and anxiety and depression (e.g., Boelen & Reijntjes, 2009; Gentes & Ruscio, 2011). Furthermore, it was shown that intolerance of uncertainty is a useful concept for understanding psychological functioning during pandemics, both H1N1 (Taha et al., 2014) and current, COVID-19 (e.g., Blanuša et al., 2020; Blanuša et al., 2021; Ferreira et al., 2020; Satici et al., 2020). Also, the association of intolerance of uncertainty with particular coping strategies was confirmed. For example, IU had not only direct effects on H1N1 anxiety, but also indirect ones via emotion-based coping strategies (Taha et al., 2016).

The present study

In this study we aimed to examine the psychological functioning of athletes in the situation of prolonged stress caused by the second wave of the COVID-19 pandemic. In order to do so we formulated several hypotheses:

H₁: Emotion-focused strategies would be associated with lower symptoms of depression, anxiety, and stress. At the time of data collection, coronavirus was not a completely new threat anymore, the medical treatment protocols were improved, and during December of 2020, Serbia got the first coronavirus vaccine. Therefore, we assumed that athletes' main concerns were training and preparing for competitions (and facing sports-related uncertainties).

H₂: Problem-focused strategies, as well as avoidant coping strategies, will be associated with elevated symptoms of depression, anxiety, and stress. Avoiding dealing with unpleasant events is in most situations a dysfunctional strategy. On the other hand, if the main source of stress is out of someone's control (e.g., uncertainty about future sports events), we assume that problem-focused strategies could only increase distress.

H₃: The intolerance of uncertainty would predict levels of experienced depression, anxiety, and stress among athletes, both directly and indirectly via the usage of coping strategies (problem-focused, emotion-focused, or avoidant).

Method

Sample and procedure

A total of 117 athletes (77 professional and 40 recreational athletes) took part in this study, 62.4% of which were male. The average age of study participants was 29.95 ($SD = 11.61$). According to Serbian Law on sports (Zakon o sportu, 2016), recreational sport includes engaging in sports activities for the purpose of leisure and recreation, improving health or improving one's own results, in all segments of the population. On the other hand, professional athletes are those whose primary or only occupation is sport (i.e., they are paid to train and to compete). The status of athletes in our study was determined based on their self-report. In Table 1 more detailed information about our sample is given.

Table 1**Demographic characteristics of the sample**

	professional athletes	recreational athletes
male		
athletes without disability	33	21
athletes with disability	10	9
female		
athletes without disability	28	10
athletes with disability	6	0

Because the group of athletes with disabilities was relatively small and they did not differ (based on Mann-Whitney U test) from the group of athletes without disabilities regarding their intolerance of uncertainty, anxiety, depression, or stress score as well as regarding usage of problem-focused, emotion-focused and avoidant coping strategies, we did not use this factor in further analysis. Our initial idea was to compare athletes with and without disabilities since we assumed that athletes with disabilities might developed some additional coping strategies and resilience that could be also useful in the context of pandemic. However, in this study those differences were not obtained.

Participants voluntarily took part in this online study (the survey was administered using the *Google forms* software). We used the snowball sampling method for recruiting participants. Before filling out the questionnaire, participants were informed about the aim of the research and by clicking the button "I agree to take part in this study" they gave consent.

Instruments

Brief COPE (Carver, 1997: Serbian translation and adaptation: Živanović & Vukčević-Marković, 2019)

We used Brief COPE (Carver, 1997: Serbian translation and adaptation: Živanović & Vukčević-Marković, 2019) to measure 14 coping strategies: self-distraction, active coping, denial, substance use, emotional support, instrumental support, behavioral disengagement, venting, positive reframing, planning, humor, acceptance, religion, self-blame. For analysis and more comprehensive interpretation we grouped these 14 coping strategies into 3 broader groups (like it was done in Popov et al., 2021): *problem-focused* (active coping, instrumental support, and planning), *emotion-focused* (acceptance, positive reframing, emotional support, religion, and humor) and *avoidant coping strategies* (denial, self-distraction, self-blame, behavioral disengagement, venting and substance use). The Cronbach alpha coefficients were: .81 for problem-focused strategies (6 items), .70 for emotion-focused (10 items), and .73 for avoidant strategies (12 items). Participants rated using a 4-point scale (from 1 to 4) how each of described behaviors is typical for them in a highly stressful situation.

The Depression Anxiety Stress Scales-21 (DASS-21; Lovibond & Lovibond, 1995; Serbian translation: Jovanović et al., 2014)

Furthermore, for evaluating levels of anxiety, stress, and depression we used The Depression Anxiety Stress Scales-21 (DASS-21; Lovibond & Lovibond, 1995; Serbian translation: Jovanović et al., 2014). DASS-21 consists of 21 items with a 4-point scale (from 0 to 3) and 3 subscales: depression (7 items, $\alpha = .87$), anxiety (7 items, $\alpha = .79$), and stress (7 items, $\alpha = .87$). Participants were instructed to evaluate how they felt in the last 7 days.

Intolerance of Uncertainty Scale (IUS-11; Mihić et al., 2014)

For measuring intolerance of uncertainty, we used the Serbian version of the short Intolerance of Uncertainty Scale (IUS-11; Mihić et al., 2014). This instrument consists of 11 items with a 5-point scale ($\alpha = .85$). The items

examine a person's tendency to react negatively in uncertain and ambiguous situations, evaluating cognitive, behavioral, and emotional aspects of those reactions.

Data analytic plan

JASP version 0.16.3 (JASP team, 2022) was used for the analysis. The Cronbach's alpha was estimated to examine the reliability of used instruments. Descriptive statistics were calculated, and we used Pearson's coefficient correlation analysis for testing the relationships between the variables. Finally, 9 simple mediation analysis [1 predictor x 3 mediators x 3 outcomes] were performed taking intolerance of uncertainty as the predictor, coping strategies (problem-focused, emotion-focused and avoidant) as mediators, and the depression, anxiety, and stress as outcome variables. Based on Hair's recommendation (Hair et al., 2013), the minimum sample size required to detect a minimum R^2 value of 0.10 in any endogenous construct in a structural model with two independent variables for a significance of 5% (i.e., .05 alpha level) and assuming statistical power of 80% is 110 (in our study 117 subjects participated). Additionally, since we tested 9 models, we used Bonferroni correction. The adjusted alpha level was .006.

Results

Descriptive statistics are presented in Table 2. Skewness value was smaller than 3 (ranged from -.85 to 1.99) and kurtosis value was smaller than 10 (ranged from -.04 to 3.82), which is considered appropriate for structural equation modeling (Kline, 2005).

Table 2**Descriptive statistics for variables included in this report**

	Theoretical range	Achieved range	<i>M</i>	<i>SD</i>	<i>Skewness</i>	<i>Kurtosis</i>
Avoidant coping (COPE)	12-24	12-39	22.77	4.95	.22	-.04
Emotion-focused (COPE)	10-40	11-38	27.39	5.09	-.21	.15
Problem-focused (COPE)	6-24	6-24	18.37	3.92	-.85	.38
Depression (DASS-21)	0-21	0-17	2.96	3.87	2.00	3.82
Anxiety (DASS-21)	0-21	0-16	2.66	3.24	1.50	2.15
Stress (DASS-21)	0-21	0-20	5.87	4.66	.88	.59
Intolerance of uncertainty (IUS-11)	11-55	11-50	22.04	7.40	1.09	1.82

Perceived levels of anxiety, stress and depression during second wave of coronavirus pandemic

The perceived levels of depression, anxiety and stress in our sample are comparable with the results from the validation study of the instrument on the Serbian student population (Jovanović et al., 2014) and the study that investigated athletes during the COVID-19 outbreak in Serbia (Sokić et al., 2021). This indicated that the majority of athletes did not report higher levels of symptoms during the second wave of the coronavirus pandemic. Additionally, the scores obtained in our study are lower compared with the study conducted in Austria in general population at the beginning of the COVID-19 pandemic (Traunmüller et al., 2020)¹, and multiple times lower compared to results from Spain² (González-Hernández et al., 2021) in athletic population. In order to estimate the severity of perceived levels of depression,

¹ $M_{depression} = 5.42$ ($SD = 8.38$), $M_{anxiety} = 8.88$ ($SD = 10.26$), $M_{stress} = 10.58$ ($SD = 10.85$), $M_{total\ DASS-21} = 24.87$ ($SD = 26.97$)

² $M_{depression} = 13.15$ ($SD = 3.11$), $M_{anxiety} = 15.73$ ($SD = 3.61$), $M_{stress} = 16.38$ ($SD = 3.04$)

anxiety and stress we compared our results with norms that are proposed by the authors of this scale (Lovibond & Lovibond, 1995). Since we used short version of the scale DASS-21, cut off scores are calculated by double multiplying the scores on each of subscales. As we can see from the Table 3, the majority of athletes' scores on all three scales are within the range that is considered normal. However, it is important to notice that 12.8% of athletes experienced depressive symptoms (from moderate to extremely severe), 23.1% experienced moderate-to-extreme anxiety, and 17.9% experienced moderate-to-extremely severe symptoms of stress.

Table 3

Distribution of DASS-21 scores

	Normal	Mild	Moderate	Severe	Extremely severe
Depression	79.5%	7.7%	5.1%	3.4%	4.3%
Anxiety	71.8%	5.1%	13.7%	5.1%	4.3%
Stress	68.4%	13.7%	7.6%	6.9%	3.4%

The relationship between intolerance of uncertainty, coping strategies and depression, anxiety, and stress

First, we checked the correlation between variables (Table 4). It is interesting to note that problem-focused strategies are not significantly associated with symptoms of depression, anxiety and stress but they are positively associated with intolerance of uncertainty. Furthermore, emotion-focused strategies are not significantly correlated with symptoms of anxiety but there are positive correlations with depression, stress, and intolerance of uncertainty. Avoidant coping strategies showed the highest positive correlations with symptoms of depression, anxiety, and stress. Finally, as expected, all 3 groups of coping strategies were intercorrelated.

Table 4**Intercorrelations among the variables**

	1	2	3	4	5	6	7
Emotion-focused COPE							
Problem-focused COPE	.65**						
Avoidant COPE	.45**	.38**					
Depression DASS-21	.18*	.02	.51**				
Anxiety DASS-21	.15	-.02	.40**	.58**			
Stress DASS-21	.19*	.17	.55**	.77**	.64**		
IUS-11 total	.26**	.22*	.50**	.45**	.41**	.46**	

Note. * $p < .05$, ** $p < .01$.

Next, we tested mediation models using JASP, version 0.16.3 (JASP team, 2022). Results showed 3 significant mediation models. It was shown that IU has not only a direct effect on experienced levels of depression among athletes but also an indirect effect via avoidant coping strategies. The same trend was observed regarding anxiety and stress. Avoidant coping strategies had a mediating role (Table 5) between IU and anxiety, depression, and stress (Figure 1, 2 and 3).

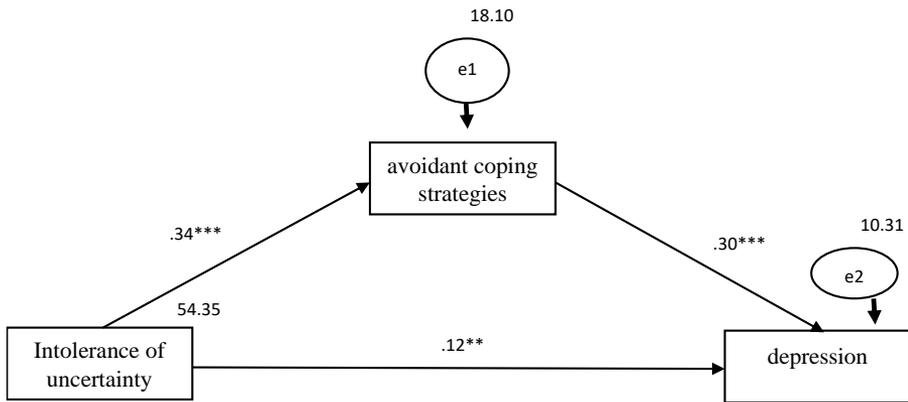


Figure 1. Mediation model for depression

Notes. Unstandardized beta coefficients are noted in the diagram. All pathways are significant.

* $p < .05$, ** $p < .01$, *** $p < .001$.

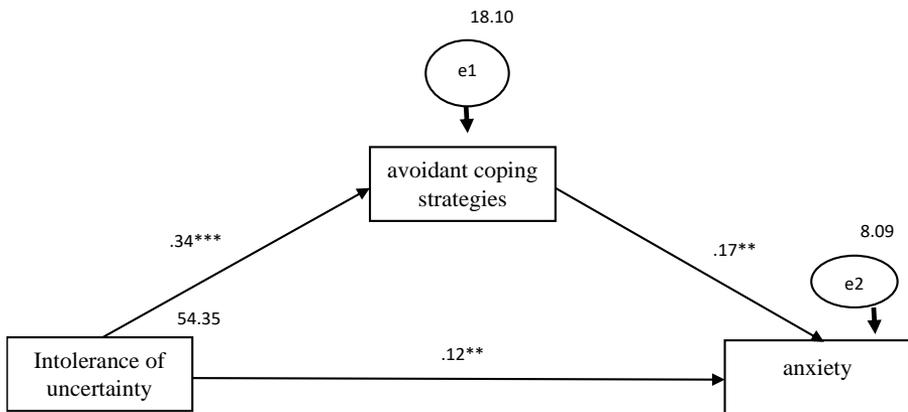


Figure 2. Mediation model for anxiety

Notes. Unstandardized beta coefficients are noted in the diagram. All pathways are significant.

* $p < .05$, ** $p < .01$ ***, $p < .001$.

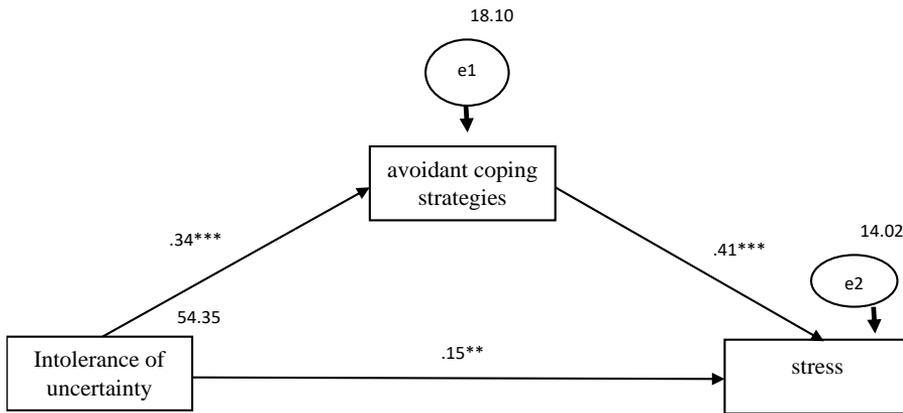


Figure 3. Mediation model for anxiety

Notes. Unstandardized beta coefficients are noted in the diagram. All pathways are significant.

* $p < .05$, ** $p < .01$ ***, $p < .001$.

Table 5

Mediation analysis - effects

Predictor	Mediator	Outcome	effects	estimate	S.E.	z-value	p	95% Confidence interval		result	
								lower	upper		
IUS-11	Problem-focused COPE	Depression	Direct	0.24	0.04	5.49	<.001	0.16	0.33	Not significant	
			Indirect	-0.01	0.01	-0.93	.350	-0.03	0.01		
			Total	0.23	0.04	5.38	<.001	0.15	0.32		
		Anxiety	Direct	0.19	0.04	5.16	<.001	0.12	0.27	Not significant	
			Indirect	-0.01	0.01	-1.25	.212	-0.03	0.01		
			Total	0.18	0.04	4.92	<.001	0.11	0.25		
		Stress	Direct	0.28	0.05	5.28	<.001	0.17	0.38	Not significant	
			Indirect	0.01	0.01	0.79	.431	-0.02	0.03		
			Total	0.29	0.05	5.59	<.001	0.19	0.39		
		Emotion-focused COPE	Depression	Direct	0.22	0.05	4.99	<.001	0.14	0.31	Not significant
				Indirect	0.01	0.01	0.81	.418	-0.01	0.03	
				Total	0.23	0.04	5.38	<.001	0.15	0.32	
	Anxiety		Direct	0.18	0.04	4.63	<.001	0.10	0.25	Not significant	
			Indirect	0.01	0.01	0.48	.629	-0.02	0.02		
			Total	0.18	0.04	4.92	<.001	0.11	0.25		
	Avoidant COPE	Stress	Direct	0.28	0.05	5.18	<.001	0.17	0.38	Not significant	
			Indirect	0.01	0.01	0.87	.385	-0.02	0.04		
			Total	0.29	0.05	5.59	<.001	0.19	0.39		
		Depression	Direct	0.13	0.05	2.83	.005	0.04	0.23	Significant	
			Indirect	0.10	0.03	3.55	<.001	0.05	0.16		
			Total	0.23	0.04	5.38	<.001	0.15	0.32		
	Anxiety	Direct	0.12	0.041	2.995	.003	0.04	0.21	Significant		
		Indirect	0.06	0.023	2.525	.012	0.01	0.10			
		Total	0.18	0.037	4.921	<.001	0.11	0.25			
Stress	Direct	0.15	0.054	2.788	.005	0.05	0.26	Significant			
	Indirect	0.14	0.035	3.925	<.001	0.07	0.21				
	Total	0.29	0.052	5.585	<.001	0.19	0.39				

Discussion

This study aimed to evaluate the psychological functioning of athletes during the second wave of the COVID-19 pandemic. Symptoms of anxiety, depression, and stress were used as indicators of psychological functioning. The studies from the beginning of the pandemic (e.g., Şenışık et al., 2021) showed that the athletes reported better functioning compared to

non-athletes, but we were interested in their mental health during the second wave of the pandemic. For the COVID-19 outbreak, it was typical that we all were facing the same uncertainty regarding our health and everyday life, and we all faced the same restrictions (at least when we talk about the same country). However, during the second wave, the sport remained one of the areas with high uncertainty regarding the future situation.

Reported levels of depression, anxiety, and stress symptoms in our study are lower compared to studies conducted during the first wave (e.g., González-Hernández et al., 2021; Traunmüller et al., 2020; González-Hernández et al., 2021) which could indicate some sort of adjustment. However, it is important to note that the percentage of athletes with moderate-to-extremely severe symptoms were high. Namely, 12.8% of athletes experienced depressive symptoms, 23.1% experienced moderate-to-extremely severe anxiety, and 17.9% experienced moderate-to-extremely severe symptoms of stress. In other words, even though it seems that the population of athletes is coping well with the pandemic, some individuals experienced a significant disturbance in their psychological functioning. However, since this was a cross-sectional study, it is not possible to check whether these athletes were experiencing higher distress even before the pandemic. That could be the case for those who are ending their careers, dealing with changes, injuries, etc.

Furthermore, we also detected the association between the use of particular coping strategies and experienced levels of depression, anxiety, and stress. Usage of avoidant coping strategies was associated with higher levels of anxiety, stress, and depression. This is in line with the results of previous studies (Fukase et al., 2021; Popov et al., 2021). The negative impact of avoidant coping strategies on mental health is not surprising. Living in a time of pandemic means that we will be constantly reminded about the ongoing global crisis, so to avoid unpleasant thoughts and feelings, an individual must put the additional effort that will increase the burden and experienced levels of distress (since we cannot hide from the unpleasant reality of pandemic). Furthermore, emotion-focused strategies were associated with higher levels of depressive and stress symptoms but not with

anxiety. Interestingly, at the beginning of the pandemic, the use of emotion-focused strategies was associated with higher levels of depressive and anxiety symptoms (Popov et al., 2021). This is an interesting result since it might seem logical that in a situation with high uncertainty, working on acceptance and emotion regulation will be beneficial. Finally, in our study, problem-focused strategies were not associated with experienced levels of depression, anxiety, and stress. At the beginning of the pandemic, using problem-focused strategies was associated with lower levels of depression, anxiety, and stress (Popov et al., 2021). In other words, when uncertainty regarding the virus and disease was high, focusing on the problem and taking precautions measures could give someone a sense of control and hope, which could be a protective factor for mental health. However, at the time when we collected our data, the main concerns for athletes were what will be decided regarding the future competition. Since they could not directly influence these decisions, perhaps using the problem-focused strategies did not provide additional benefits for their mental health.

This study also showed the association between someone's intolerance of uncertainty, coping strategies, and the experienced level of stress, anxiety, and depression. Intolerance of uncertainty was a predictor of the experienced level of depression, anxiety, and stress which is a common result in literature (Boelen & Reijntjes, 2009; Gentes & Ruscio, 2011). This is also in accordance with the idea that intolerance of uncertainty is a transdiagnostic risk factor for emotional disorders (e.g., Boelen & Reijntjes, 2009; Gentes & Ruscio, 2011). Intolerance of uncertainty also was associated with the use of different coping strategies (avoidant, emotion-focused and problem-focused). Such a result is in line with previous studies (e.g., Sankar et al., 2017) where behavioral manifestations of Intolerance of uncertainty were classified into five categories: under-engagement, over-engagement, impulsive decision making, flip-flop, and dither. Under-engagement describes avoidant behavior while over-engagement is described as approach behavior i.e., there is a clear parallel with avoidant coping strategies and problem-focused strategies.

Furthermore, it is interesting to mention the indirect effect of intolerance of uncertainty on depression, stress, and anxiety via the avoidant coping mechanism. Higher intolerance of uncertainty was associated with the usage of avoidant coping strategies that are shown as malfunctioning coping mechanisms. In other words, an athlete who cannot tolerate uncertainty might get involved in dysfunctional patterns of behavior and thinking, such as substance use, venting, denial, self-distraction, self-blame, and behavioral disengagement, as a form of self-soothing and self-distraction, which in turn will lead again to the increased levels of stress, anxiety, and depression. Improving communications and providing clear and timely information to the athletes perhaps could decrease the uncertainty and related dysfunctional behavior during the crisis. However, since uncertainty is an inevitable part of life, athletes could also benefit from the usage of brief cognitive intervention that would target intolerance of uncertainty and help them cope better (Oglesby et al., 2017). Furthermore, the obtained results indicate the need to promote resilience in athletes in times of crisis, which could be achieved through counseling and professional support to reduce the harmful psychological and emotional effects of the situation caused by the pandemic.

Limitations

This study has several limitations. The main issue was the fact that the sample was convenient and unrepresentative. Even though we had a category of professional athletes, the number of elite athletes (such as Olympic athletes) was small, as well as the number of athletes with disabilities. Further studies should include a larger, more representative sample. Also, it would be interesting to compare the athletes with a disability and those without it. Perhaps athletes with a disability are already using some additional coping strategies that might increase their resilience even in times of global crisis. Potentially, we did not detect differences due to the small sample size. Furthermore, this was a cross-sectional study, and therefore we do not have the previous indicators of mental health measures of the athletes who participated. It would be interesting to follow possible changes in the

usage of particular coping strategies as well as the experienced levels of depression, anxiety, and stress. Finally, since our study was correlational, the assumed causal relationship between the variables needs to be further explored.

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Conflict of Interests

The authors declare that they have no conflict of interests.

Data availability statement

Data files are available upon request.

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