

META-ANALYSIS ON MENTAL HEALTH OF ATHLETES DURING COVID-19 PANDEMIC

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ABSTRACT

This meta-analysis examines the effects of the COVID-19 pandemic on mental well-being are the subject of investigation in this analysis. Ten studies were analyzed, revealing high levels of anxiety, depression, stress, and psychological distress among athletes. Elite athletes and those in individual sports reported even higher levels of distress. Eight studies specifically identified elevated levels of depression among athletes. Furthermore, the findings of these studies demonstrated a significant decline in athletes' performance due to the pandemic. These findings underscore the urgent need for mental health support and tailored interventions to address these challenges and promote the well-being of athletes. In addition, it is imperative for forthcoming research to explore mental health hurdles that athletes face amidst the ongoing COVID-19 pandemic and in the aftermath, in order to foster a comprehensive comprehension of their well-being throughout and after this unprecedented period. Moreover, there is a need for future research to delve into the physical health obstacles encountered by athletes amidst the COVID-19 pandemic, with the goal of gaining a comprehensive understanding of their overall well-being.

INTRODUCTION

The global outbreak of the COVID-19 pandemic has had far-reaching consequences, impacting individuals across the globe in various ways. Athletes, in particular, have faced unique challenges due to the cancellation or postponement of sports events, disruptions in training routines, and diminished social support networks. These disruptions and uncertainties have had significant implications for the mental health of athletes, warranting a comprehensive understanding of their mental health outcomes during this challenging period. In this meta-analysis, ten studies were analyzed to gain insights into the mental health status of athletes during the COVID-19 pandemic. The findings of these studies revealed high levels of anxiety, depression, stress, and psychological distress among athletes. Elite athletes and those participating in individual sports reported even higher levels of distress, indicating the additional pressures they faced. Specifically, eight studies highlighted a significant increase in depression levels among athletes, underscoring the psychological toll of the pandemic on this population. Furthermore, the collective findings demonstrated a notable decrease in athletes' performance as a direct consequence of the pandemic. This decline can be attributed to disrupted training regimens, limited access to training facilities, and the absence of competitive events. The findings emphasize the urgency of addressing the mental health challenges faced by athletes and implementing tailored interventions to support their well-being during and beyond the pandemic. To develop effective strategies, future studies should aim to explore additional aspects of athletes' mental health and well-being during the COVID-19 pandemic. Specifically, examining the impact of social isolation, loss of identity, and

changes in social support structures on athletes' mental health could provide valuable insights. Additionally, investigating the physical health challenges and potential long-term consequences of the pandemic on athletes' holistic well-being is crucial for a comprehensive understanding of their overall health status. By synthesizing the existing evidence, this meta-analysis contributes to the growing body of knowledge on the mental health of athletes during the COVID-19 pandemic. The insights gained from this research can inform the development of targeted interventions, support systems, and preventive measures to mitigate the negative psychological impact and promote the well-being of sports persons in these difficult times.

METHODOLOGY

Out of the initial pool of 150 studies, 10 studies were selected for analysis. The selected studies were then examined based on various factors such as age, number of subjects, symptoms, performance, experience, level of significance, country, and methods. Statistical analysis was conducted using frequency and percentage (%) to facilitate the meta-analysis, focusing on sample size, level of significance, performance, symptoms, and other relevant aspects.

The procedure of studies included in the meta-analysis is shown with the help of following:

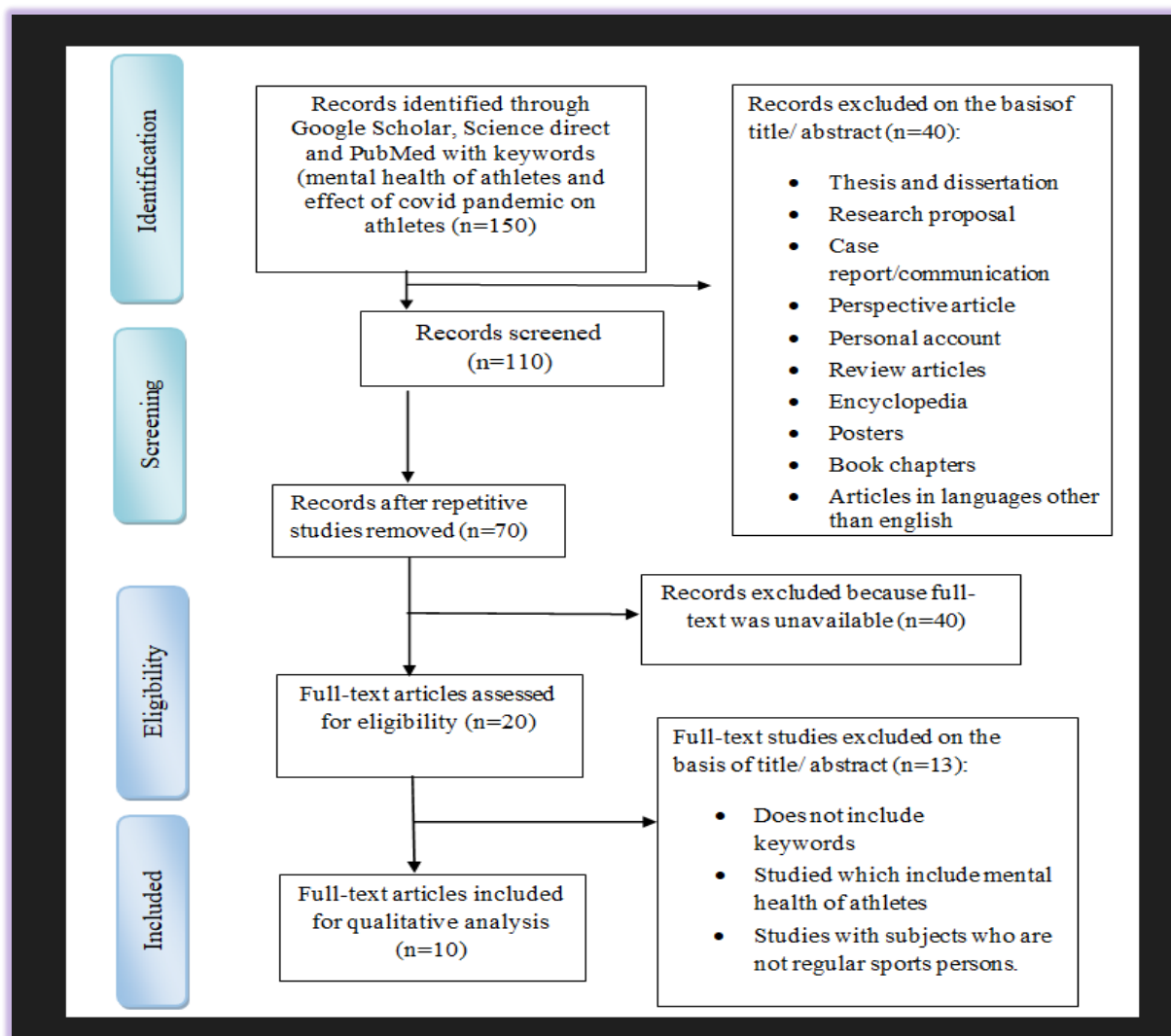


Figure 1: Flow Chart Depicting the Selection of Studies for the Meta-Analysis on the physical health of athletes during covid-19 pandemic

RESULT

TOPICS	PAPERS	PERCENTAGE	VARIABLES
Highest number of subjects used in papers	4	40%	Less Than 100
Highest Symptoms Shown by Subjects in Papers	8	80%	Depression
Level of Performance	9	90%	Decrease
Level of Significance	7	70%	0.05
Methods used	7	70%	Questionnaire

Majority of the studies shown decreasing in mental health efficiency of the athletes and majority of the research papers use questionnaire method. Also we observe the performance of the athletes become decrease due to covid pandemic.

DISCUSSION OF FINDINGS

The findings of the study demonstrate a notable decline in athletes' performance as a result of the COVID-19 pandemic. The finding of the study is in line with-

The collective findings from all 10 papers consistently reveal a negative impact of the COVID-19 pandemic on athletes' mental health. Various mental health-related symptoms such as depression (Y. Lima et al., 2022), anxiety (S. Şenisik et al., 2021), stress (Facer-Childs et al., 2021), and sleeping disorders (Wentz Kyle et al., 2021) were identified, significantly affecting the well-being of athletes. Consequently, the hypothesis stating that the COVID-19 pandemic would have a significant effect on athletes' mental health is supported. The lockdown measures, closure of gyms and fitness centers, training restrictions, and suspension of professional sports activities, along with limitations on outdoor activities, contributed to this negative impact. The prevalence and severity of anxiety, stress, and depression increased among athletes as a result of these circumstances. The limitations imposed to mitigate the spread of COVID-19 restricted access to various forms of physical activity, further exacerbating the mental health symptoms experienced by athletes.

CONCLUSIONS

The results of the meta-analysis consistently indicate a significant negative influence of the COVID-19 pandemic on athletes' mental health. Across the ten selected papers, a consistent decline in athletes' performance was observed, accompanied by a range of mental health symptoms. These symptoms include increased rates of depression, elevated levels of stress and anxiety, a higher prevalence of eating disorders, and disrupted sleep patterns.

Factors such as lockdown measures, limited access to training facilities, and reduced physical activity contribute to these effects.

Urgent actions are required to address the detrimental impact of the pandemic on athletes' mental health. This includes implementing alternative training options and establishing support systems. It is crucial for the sports community to prioritize the safe resumption of training and competition while also considering comprehensive measures to address athletes' physical and mental well-being. Continued research is necessary to develop targeted interventions.

The study also sheds light on the psychological impact of the uncertainty caused by event postponements on athletes' mental health. The analysis explores dispositional and emotional factors associated with mental health symptoms among athletes during the COVID-19 pandemic.

BIBLIOGRAPHY

Facer-Childs ER, Hoffman D, Tran JN, Drummond SPA, Rajaratnam SMW (2021). —Sleep and mental health in athletes during COVID19lockdown. *14;44(5):zsaa261*. doi: 10.1093/sleep/zsaa261.PMID: 3535229; PMCID: PMC7928674.

Hagiwara, G.(2021) —Relationships among Student-Athletes' Identity and Mental Health Condition—Survey in the COVID-19 Pandemic”*Medical Science Forum* 2021,4,31. <https://doi.org/10.3390/ECERPH-3-09074>

Lambert, C., Schuetz, LM., Rice, S. et al. (2022) “Depressive symptoms among Olympic athletes during the Covid-19 pandemic”. *BMC Sports Science Medical Rehabilitation* 14, 36 <https://doi.org/10.1186/s13102-022-00427-z>

Lima Y, Senisik S, Denerel N, Hursitoglu H, Balci GA, Bolat GU, et al.,(2022) “Effects of COVID 19 pandemic on the psychological states of youth and adult elite male athletes”. *Turk J Sports Medicine.*;57(1):317; <https://doi.org/10.47447/tjism.0597>

Pensgaard AM, Oevreboe TH, (2021) —Ivarsson A. Mental health among elite athletes in Norway during a selected period of the COVID-19pandemic. *BMJ Open Sport & Exercise Medicine* ;7:e001025. <http://dx.doi.org/10.1136/bmjsem-2020-001025>

Seçkin Şenışık, Nevzad Denerel, Ogün Köyağasıoğlu & Serhat Tunç (2021) “The effect of isolation on athletes' mental health during the COVIDpandemic”, *The Physician and Sportsmedicine*, 49:2, 187-193,DOI: 10.1080/00913847.2020.1807297

Uroh CC and Adewunmi CM (2021) —Psychological Impact of the COVID-19 Pandemic on Athletes. *Front. Sports Act. Living* 3:603415. doi: 10.3389/fspor.2021.603415

Vaughan RS, Edwards EJ and MacIntyre TE (2020) “Mental Health Measurement in a Post Covid-19 World: Psychometric Properties and Invariance of the DASS- 30 21 in Athletes and Non-athletes”. *Front. Psychol.* 11:590559. doi: 10.3389/fpsyg.2020.590559

Wagemans J, Catteuw P, Vandenhouten J, Jansen J, de Corte X, Ceusters C and Vissers D (2021) —The Impact of COVID-19 on Physical Performance and Mental Health—A Retrospective Case Series of Belgian Male Professional Football Players. *Front. Sports Act. Living* 3:803130 doi: 10.3389/fspor.2021.803130

Wentz Kyle, Milburn Nate, Chhabra Avneesh, Tietze David, Shah Jay P (2021) “COVID-19 Pandemic Negatively Impacted Mental Health and Sports Participation of High School and Collegiate Athletes”. *Biomed J Sci & Tech Res* 37(1)-2021. BJSTR. MS.ID.005932. DOI:

10.26717/BJSTR.2021.37.005932