

Research article

Rehabilitation and Return-to-Play Following COVID-19: Health Outcomes and Quality of Life in Athletes

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Abstract: The COVID-19 pandemic significantly affected athletes by disrupting training routines, competitions, and overall physical and psychological well-being. Although athletes generally represent a healthy population, the pandemic introduced challenges such as infection-related health risks, training restrictions, psychological stress, and uncertainty regarding safe return to sport. These factors highlighted the need for appropriate rehabilitation strategies and structured return-to-play protocols. Objective: This systematic review aimed to synthesize current evidence regarding rehabilitation needs, return-to-play considerations, health outcomes, and quality-of-life implications in athletes during and after the COVID-19 pandemic. Methods: A systematic search of Web of Science, PubMed, and Scopus was conducted for studies published from January 2020 until the date of the final search conducted in December 2025, following PRISMA guidelines. Eligible studies included original research examining physical, psychological, or performance-related outcomes in athletes during or after COVID-19 infection or pandemic-related restrictions. Results: Twenty-nine studies were included. Findings indicate that the pandemic disrupted training routines and competition schedules while increasing anxiety, psychological stress, and reduced motivation. Decreases in training volume and physical conditioning were common. However, elite athletes often demonstrated greater psychological resilience when structured training and remote coaching were maintained. Clinical evidence emphasized cardiovascular screening, gradual rehabilitation, and individualized return-to-play protocols. Conclusions: The pandemic had multifaceted effects on athletes' health and performance. Interdisciplinary rehabilitation and individualized return-to-play strategies are essential for safe recovery and long-term athlete well-being.

Keywords: COVID-19; athletic performance; quality of life; rehabilitation

1. Introduction

The COVID-19 pandemic has had a profound and unprecedented global impact, affecting healthcare systems, social dynamics, and patterns of physical activity worldwide. Since its emergence at the end of 2019, the SARS-CoV-2 virus has disrupted not only the health status of the general population but also the training routines and competition schedules of athletes. Although athletes are traditionally considered a population with superior health status and optimal physical capacity, recent evidence suggests that they are not exempt from the short- and long-term effects associated with COVID-19 infection [1,2]. The pandemic was associated with restricted access to training facilities, disruption of competitive calendars, and increased uncertainty, factors that may have negatively affected both athletic performance and overall well-being.

Unlike the general population, athletes are exposed to specific physiological and psychological demands, making the recovery process following illness particularly complex. High-level athletic performance requires optimal functioning of the cardiovascular, respiratory, and neuromuscular systems, as well as a high level of psychological resilience and well-developed personality traits such as self-confidence, self-esteem, and emotional stability [3,4]. In this context, even mild impairments associated with COVID-19 infection may have disproportionate consequences on performance capacity, particularly in sports where psychomotor coordination and anaerobic motor abilities play a central role [5,6]. Studies have reported that post-COVID-19 athletes may experience reduced aerobic capacity, persistent fatigue, and cardiopulmonary limitations, affecting both training and competitive outcomes [2,7]. Recent literature has also highlighted the pandemic's impact on physical activity levels and mental health across different populations, emphasising the need for targeted rehabilitation strategies [8].

In addition to physical impairments, the psychological impact of the pandemic on athletes has been widely documented in the literature. Periods of isolation, reduced training opportunities, and uncertainty regarding participation in competitions have been associated with increased levels of anxiety and stress, as well as decreased motivation [9,10]. Psychological characteristics such as self-esteem, emotional balance, and ethical attitudes in sport are known to influence both performance and well-being among athletes [11]. Furthermore, the interaction between physical deconditioning and psychological stress may contribute to prolonging the recovery process.

An increasingly discussed concern in the literature is the persistence of symptoms following the acute phase of COVID-19 infection, commonly referred to as "long COVID". This condition encompasses a wide range of symptoms, including fatigue, dyspnoea, and cognitive impairments, which may persist for weeks or months and significantly affect both daily functioning and athletic performance [12]. For athletes, these long-term effects create substantial challenges in decision-making regarding safe return-to-play and highlight the need for individualized rehabilitation strategies delivered through multidisciplinary care.

Quality of life represents a multidimensional concept reflecting the interaction between physical, psychological, and social well-being. In the context of athletes recovering from COVID-19, quality of life may be negatively affected by persistent symptoms, reduced performance capacity, and psychological stressors [13]. In light of the growing emphasis on athlete-centred care, understanding the overall impact of COVID-19 on quality of life is essential for optimising recovery strategies and supporting long-term athletic performance.

Despite the increasing number of studies investigating the impact of COVID-19 in the sporting context, there remains a lack of consolidated evidence regarding post-COVID recovery in athletes, particularly from an integrated perspective. Existing research is often heterogeneous, focusing either on physiological or psychological aspects, with limited integration of these dimensions. Moreover, variability in study designs, population characteristics, and outcome indicators complicates the development of clear, evidence-based guidelines for returning to sport and optimising the recovery process.

Therefore, the aim of this study is to systematically analyse the existing literature regarding the effects of COVID-19 on health status and quality of life in athletes, with a particular focus on identifying implications for recovery and safe return-to-sport strategies. In this context, we seek to provide an integrated synthesis of the available evidence, building on previous research that highlights the significant negative impact of the COVID-19 pandemic on athletes' quality of life [14].

2. Materials and Methods

2.1 Study Design

This systematic review was conducted and reported in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA 2020) guidelines. A completed PRISMA checklist and PRISMA Abstract checklist were submitted as supplementary materials in accordance with journal requirements.

2.2 Search Strategy

The search strategy combined controlled vocabulary and free-text terms using Boolean operators. An example of the search syntax used in PubMed was: ("COVID-19" OR "SARS-CoV-2") AND ("athletes" OR "sport*" OR "competitive athletes") AND ("quality of life" OR "performance" OR "rehabilitation" OR "mental health").

Similar search strategies were adapted for Web of Science and Scopus.

The search timeframe was defined as January 2020 to December 2025 in order to capture all potentially relevant studies published during the COVID-19 pandemic period. Although the search timeframe covered January 2020 to December 2025, all studies meeting the eligibility criteria and retrieved through the selected databases had publication dates between 2020 and 2022. No eligible studies published after 2022 were identified during the screening process.

The search strategy was limited to Web of Science, PubMed, and Scopus, as these databases provide extensive coverage of peer-reviewed literature relevant to sports medicine, rehabilitation, and health sciences.

2.3 Eligibility Criteria

Inclusion criteria: Original research articles (cross-sectional studies, experimental studies, prospective cohort studies, longitudinal observational studies, and observational studies); studies including athletes or physically active individuals; studies evaluating post-COVID-19 health outcomes, quality of life, and sports performance in athletes; articles published in English; studies published between 2020 and 2025.

Exclusion criteria: Studies investigating the general population without reporting specific data for athletes or physically active individuals; reviews and meta-analyses; case reports, editorials, letters to the editor, or conference abstracts; studies that do not assess health indicators, performance, or quality of life; duplicate publications. Athletes were defined as individuals engaged in organized competitive sport, whereas physically active individuals referred to participants regularly performing structured physical activity. Both categories were included because the review focused on post-COVID health, quality-of-life, and rehabilitation outcomes in populations exposed to regular training demands and physical conditioning.

Definitions of post-COVID status varied across the included studies, ranging from the period immediately following acute infection to several weeks or months after symptom resolution. Consequently, the interpretation of post-COVID outcomes should be considered within the context of each study's specific definition.

2.4 Study Selection

All identified records were imported into a reference management system, and duplicate publications were removed. The titles and abstracts of the identified records were independently screened by two reviewers. Full-text articles considered potentially eligible were subsequently assessed independently against the predefined inclusion and exclusion criteria. Any disagreements were resolved through discussion and consensus among the reviewers. The study selection process was documented using a PRISMA flow diagram.

2.5 Data Extraction

Data were extracted using a standardised form, which included the following variables: author(s) and year of publication; study design; sample size and characteristics of the athlete population; type of sport; evaluated health outcomes (physical and psychological); indicators used to assess quality of life; and the main findings related to post-COVID-19 recovery.

Quality-of-life outcomes included self-reported well-being, mental health status, perceived life satisfaction, and psychosocial functioning. Recovery outcomes included return-to-training time, symptom persistence, and rehabilitation-related measures. Sports performance outcomes included training volume, conditioning status, maintenance of physical fitness, and sport participation indicators.

2.6 Data Synthesis

Given the heterogeneity in study designs, investigated populations, and outcome indicators, a qualitative synthesis of the results was conducted. The findings were organised into main thematic categories, including physical health outcomes, psychological effects, quality of life, and implications for recovery strategies.

2.7 PRISMA Flow Diagram

The study selection process was illustrated using a PRISMA flow diagram, which presents the number of records identified, screened, excluded, and included in the final analysis.

This systematic review was not prospectively registered in an international database (e.g., PROSPERO).

3. Results

3.1. Study Selection

The initial database search identified a total of 1,248 records (Web of Science: 432; PubMed: 398; Scopus: 418). After removing duplicate publications, 936 records remained for title and abstract screening. Following this stage, 874 studies were excluded due to irrelevance to the research topic.

A total of 62 full-text articles were assessed for eligibility. After applying the predefined inclusion and exclusion criteria, 33 articles were excluded. A total of 29 unique studies met the eligibility criteria and were included in the final qualitative synthesis. Some studies contributed data to both the study characteristics (Table 1) and the rehabilitation and return-to-play considerations (Table 2).

The study selection process is illustrated in the PRISMA flow diagram (Figure 1).

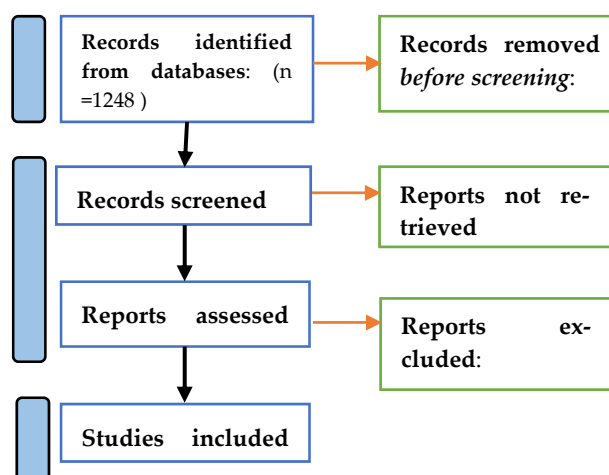


Figure 1. PRISMA flowchart for the study selection process

3.2. Study Characteristics

The characteristics of the studies included in the systematic review are summarized in Table 1. A total of 29 studies met the eligibility criteria and were published between 2020 and 2022. The studies included diverse athletic populations, such as elite athletes, professional team-sport players, Olympic athletes, university athletes, adolescent competitors, and physically active individuals. Sample sizes varied considerably, ranging from small cohorts of fewer than 50 athletes to large samples exceeding 1,000 participants. The studies were conducted across multiple geographical regions, including Europe, Asia, Africa, and South America, and involved diverse athletic populations, such as elite athletes, professional team-sport players, Olympic athletes, university athletes, adolescent competitors, and physically active individuals.

Table 1. Characteristics of the studies included in the systematic review

Authors, Year	Country	Population	Study design	Main outcomes
Ruffault et al., 2020 [15]	France	759 high-performance athletes	Cross-sectional study	Psychological preparation programmes focused on confidence and motivation were essential for successful reintegration into competition following pandemic restrictions.
Clemente-Suárez et al., 2020 [16]	Spain	175 Olympic athletes	Cross-sectional survey	Athletes perceived the pandemic as a major threat to their sporting careers.
Abenza-Cano et al., 2020 [17]	Spain	245 elite student-athletes	Cross-sectional survey	The pandemic significantly disrupted the balance between sport and academic responsibilities.
Pillay et al., 2020 [18]	South Africa	629 elite and semi-elite athletes	Cross-sectional survey study	Implementation of structured daily routines and remote coaching support were crucial for maintaining physical condition during lockdown.
di Cagno et al., 2020 [19]	Italy	1508 adolescent athletes	Cross-sectional study	Athletes reported increased psychological stress during lockdown.
Di Fronso et al., 2020 [20]	Italy	1123 competitive athletes	Cross-sectional study	Elite athletes reported lower perceived stress and more functional emotional states than non-elite athletes during lockdown.
Fikenzer et al., 2020 [21]	Germany	12 physically active individuals	Experimental study	Face masks increase respiratory effort during physical exercise.
Dauty et al., 2020 [22]	France	25 elite football players	Observational study	Maintaining structured training programmes during lockdown is crucial for safe return to sport.
Grazioli et al., 2021 [23]	Brazil	23 professional football players	Cross-sectional study	Quarantine negatively affected athletes' physical condition.
Parm et al., 2021 [24]	Estonia	600 elite athletes	Cross-sectional survey	Athletes reported reduced training volume and difficulties preparing for competitions due to pandemic restrictions.
Hagiwara et al., 2021 [25]	Japan	402 university athletes	Cross-sectional survey	Maintaining athletic identity and social connections with teammates was essential for preserving mental health.
Batalla-Gavaldà et al., 2021 [26]	Spain	45 young athletes	Longitudinal observational study	Psychological preparation and crisis management strategies support adaptive coping and performance maintenance.
Şenışık et al., 2021 [27]	Turkey	50 professional team-sport athletes	Cross-sectional study	Training disruption increased anxiety symptoms and negatively affected psychological well-being.
Knowles et al., 2021 [28]	United Kingdom / Ireland	744 athletes vs. non-athletes	Cross-sectional study	Athletes demonstrated better mental health resilience compared with non-athletes.
Szczypińska et al., 2021 [29]	Poland	222 elite and amateur athletes	Cross-sectional study	Athletes who used active coping strategies reported lower perceived stress levels.
Davila-Torres et al., 2021 [30]	Peru	74 rugby players	Cross-sectional study	Multidisciplinary support programmes are essential during periods of isolation.

Leguizamo et al., 2021 [31]	Spain	175 high-performance athletes	Cross-sectional study	Athletes using adaptive coping strategies and possessing resilient personalities reported lower anxiety levels.
Lima et al., 2021 [32]	Turkey	77 professional male football players	Cross-sectional study	High levels of anxiety were reported during COVID-19 lockdown.
Deniz, M., 2021 [33]	Turkey	109 handball players	Cross-sectional study	Club–athlete relationship during the pandemic influenced athletes’ anxiety levels.
Fröhlich et al., 2021 [34]	Switzerland	203 elite athletes	Cross-sectional observational study	Changes in training routines during quarantine affected mental health and motivation.
Tekkursun-Demir et al., 2021 [35]	Turkey	347 elite athletes and sedentary individuals	Comparative cross-sectional study	Elite athletes reported lower anxiety levels, suggesting a protective effect of regular exercise.
González-Hernández et al., 2021 [36]	Spain	544 high-performance athletes	Cross-sectional observational study	Suspension of sport seasons generated stress and uncertainty; psychological support facilitated adaptation.
Hossien et al., 2021 [37]	Iran / Spain / Denmark	29 professional football players	Cross-sectional study	Pandemic-related anxiety influenced physiological responses and performance.
Cosma et al., 2021 [14]	Romania	249 performance athletes	Cross-sectional study	Pandemic anxiety negatively influenced athletes’ perceived quality of life.
Hull et al., 2022 [2]	United Kingdom	147 elite athletes	Prospective cohort study	COVID-19 presented predominantly with upper respiratory symptoms, fewer lower respiratory manifestations, and was associated with prolonged illness and delayed return to sport.

3.3. Rehabilitation and Return-to-Play Considerations

Table 2. Key rehabilitation and return-to-play considerations for athletes following COVID-19 infection

Author	Year	Focus of Study	Main Rehabilitation / Return-to-Play Recommendations
Hull et al., [2]	2022	Clinical characteristics and recovery patterns in elite athletes with COVID-19.	Gradual return-to-play protocols should be implemented according to symptom severity and cardiopulmonary evaluation.
Phelan et al., [1]	2020	Cardiovascular considerations for competitive athletes after COVID-19.	Cardiac screening is recommended prior to resuming high-intensity training, particularly in athletes presenting cardiopulmonary symptoms.
Baggish et al., [38]	2020	Cardiac involvement and return-to-sport considerations.	Cardiovascular assessment including ECG, biomarkers, and imaging should be performed in athletes with moderate or severe symptoms.
Toresdahl & Asif, [39]	2020	Medical considerations for returning athletes to sport	Athletes should receive medical clearance and be monitored during the early stages of return-to-play.
Jukic et al., [9]	2020	Training adaptations for athletes during lockdown	Individualised training strategies should be implemented to maintain neuromuscular performance during periods of restricted activity.
Pillay et al., [18]	2020	Impact of lockdown on elite and semi-elite athletes	Structured daily training routines and remote coaching support can help maintain physical conditioning.
Grazioli et al., [23]	2021	Psychological responses of professional athletes during lockdown	Psychological support strategies are essential to maintain mental well-being and motivation during recovery and return to sport
Hagiwara et al., [25]	2021	Athletic identity and mental health in university athletes	Maintaining social interaction with teammates and coaching staff supports psychological resilience during rehabilitation.
Szczypińska et al., [29]	2021	Coping strategies among athletes during pandemic restrictions	Active coping strategies and psychological resilience are associated with lower stress levels in athletes.
Clemente-Suárez et al., [16]	2020	Psychological impact of COVID-19 on Olympic athletes	Psychological monitoring and counselling should be integrated into rehabilitation programmes to support athletes’ return to competition.

The studies included in this review reported several considerations regarding rehabilitation strategies and safe return to sport following COVID-19 infection. These recommendations were primarily related to medical evaluation, gradual resumption of training, and psychological support for athletes during the recovery period.

Several studies highlighted the importance of medical assessment before returning to high-intensity training, particularly with regard to potential cardiopulmonary complications associated with COVID-19 infection [1,38,39]. Clinical screening procedures frequently mentioned in the literature include electrocardiography, biomarker testing, and, when indicated, cardiac imaging. Such evaluations were considered particularly relevant for athletes presenting persistent symptoms or prolonged illness following infection [2].

In addition to medical screening, a number of studies emphasized the need for gradual return-to-play protocols. These protocols generally involve progressive increases in training load, monitoring of symptoms, and the implementation of adequate recovery periods to minimize potential health risks and facilitate safe reintegration into sport [2,9].

Several studies also reported the importance of maintaining structured training routines during periods of restricted activity. Strategies such as home-based exercise programmes, remote coaching supervision, and individualized training schedules were described as practical approaches for maintaining physical conditioning when access to sports facilities was limited [18].

Psychological support was another frequently reported element in the reviewed studies. Research conducted among elite and university athletes highlighted the role of coping strategies, social support, and communication with teammates and coaches in maintaining psychological well-being during lockdown periods and facilitating adaptation to pandemic-related restrictions [23,25,29,16].

Overall, the reviewed studies described a range of medical, physical, and psychological considerations relevant to the rehabilitation process and safe return to sport following COVID-19 infection.

4. Discussion

The present systematic review provides an integrated synthesis of the available evidence regarding the physical, psychological, and performance-related consequences of the COVID-19 pandemic in athletic populations, with particular emphasis on recovery and return-to-play considerations. The findings indicate that the pandemic adversely affected multiple dimensions of athletes' lives, including psychological well-being, physical conditioning, and the clinical management of recovery following infection.

One of the most consistently reported themes in the literature concerns the psychological impact of pandemic-related restrictions. Lockdown measures, suspension of competitions, and limited access to training facilities created an environment characterized by uncertainty and disruption of daily routines. Several studies reported increased levels of anxiety, perceived stress, and emotional distress among athletes during this period [16,19,32]. Psychological responses to such stressors are influenced by individual characteristics including temperament, emotional regulation, and self-esteem, which may shape athletes' capacity to adapt to challenging circumstances [3,4].

Several studies suggested that elite athletes may exhibit greater psychological resilience than non-athlete populations, potentially reflecting their experience in managing competitive pressure, uncertainty, and performance-related stressors. Such adaptive characteristics may have contributed to more effective coping during periods of social restriction and sporting disruption [28,35]. Ethical values and attitudes promoted within the sporting environment, including principles associated

with fair play, may also contribute to adaptive coping behaviours and psychological stability among athletes [11].

Quality of life emerged as an important outcome across the reviewed literature. Pandemic-related anxiety, social isolation, uncertainty regarding competitions, and reduced training opportunities negatively influenced athletes' perceived well-being and life satisfaction. Findings reported by Cosma et al. [14] further suggest that psychological distress was associated with lower perceived quality of life among athletes during the pandemic. These observations indicate that athlete recovery should be evaluated not only through physical performance indicators but also through broader measures of well-being and psychosocial functioning.

Another important aspect identified in the reviewed literature relates to the effects of pandemic-related restrictions on training routines and physical conditioning. Reduced access to training facilities and disruptions to structured training schedules may lead to detraining effects, decreased aerobic capacity, and reduced neuromuscular performance [24,23,34]. Such changes are particularly relevant for high-performance athletes, for whom even small variations in physical capacity may influence competitive outcomes.

In sports requiring high levels of coordination, speed, and anaerobic power, alterations in training routines may also affect psychomotor performance and sport-specific motor abilities [34,5,6]. Maintaining structured training strategies and individualized exercise programmes during periods of restricted activity therefore represents an important strategy for reducing performance decline and supporting athletes' long-term rehabilitation.

From a clinical perspective, the reviewed literature highlights the importance of comprehensive medical evaluation before resumption of high-intensity training following COVID-19 infection. Particular attention has been directed toward potential cardiopulmonary complications, especially among athletes experiencing persistent symptoms or prolonged recovery. Consequently, several expert recommendations support structured screening protocols as part of the return-to-play decision-making process [38,39].

Another key implication emerging from the literature is the need for gradual and individualized return-to-play strategies. Progressive increases in training load, monitoring of symptoms, and adequate recovery periods represent essential components of safe rehabilitation. These approaches help reduce the risk of injury or complications while facilitating the restoration of physical conditioning and sport-specific performance.

The findings of this review support a comprehensive and individualized approach to post-COVID athlete rehabilitation. Effective recovery appears to require integration of medical assessment, physical reconditioning, and psychological support, allowing rehabilitation strategies to address the complex interaction between physical health, mental well-being, and sport performance. Collaboration between medical staff, coaches, and athletes may contribute to more effective recovery strategies and safer reintegration into competitive sport.

Interpretation of the findings should be undertaken cautiously because the included studies involved heterogeneous populations, including elite athletes, professional athletes, university athletes, adolescent competitors, and physically active individuals. Differences in training demands, competition level, age, sporting discipline, and recovery expectations may influence both health outcomes and rehabilitation needs. Consequently, direct comparisons between studies should be interpreted with caution, and broad generalizations should be avoided.

Despite the growing number of studies examining the impact of COVID-19 on athletes, important gaps remain in the current literature. Most available evidence is derived from cross-sectional investigations, limiting the understanding of long-term recovery trajectories and causal relationships. Furthermore, relatively few studies

have examined sport-specific rehabilitation approaches or compared recovery patterns across different competitive levels. Future research should prioritize longitudinal designs and standardised outcome measures to strengthen the evidence base for post-COVID athlete rehabilitation.

Implications for Physical and Rehabilitation Medicine

The findings of this review highlight the important role of Physical and Rehabilitation Medicine (PRM) in supporting athletes recovering from COVID-19. Persistent symptoms such as reduced exercise tolerance, cardiopulmonary limitations, fatigue, and impaired quality of life may negatively affect both athletic performance and successful return-to-play outcomes. Therefore, rehabilitation strategies should be delivered through coordinated interdisciplinary care involving physicians, physiotherapists, exercise specialists, psychologists, and sports medicine professionals.

Comprehensive post-COVID rehabilitation programs should include cardiopulmonary assessment, progressive physical reconditioning, symptom monitoring, and individualized return-to-play planning. In addition, quality-of-life outcomes should be considered alongside physiological recovery indicators to ensure a holistic rehabilitation process. The evidence synthesized in this review supports the need for structured rehabilitation pathways aimed at optimizing recovery and minimizing potential long-term health consequences in athletic populations.

5. Limitations of the review

Several methodological limitations should be considered when interpreting the findings of this review. First, the included studies displayed considerable heterogeneity in terms of study design, sample size, and outcome measures, which limited the possibility of performing a quantitative meta-analysis. Second, most studies used cross-sectional designs, which restricts the ability to establish causal relationships between COVID-19 infection and long-term health outcomes in athletes. Third, the review included only articles published in English, which may have resulted in the exclusion of relevant studies published in other languages.

In addition, considerable heterogeneity existed across the included studies regarding athlete populations, competitive levels, outcome measures, and definitions of post-COVID status. This heterogeneity limited direct comparisons between studies and restricted the possibility of conducting quantitative synthesis.

An additional limitation is that a formal risk-of-bias assessment was not performed. Consequently, the methodological quality of the included studies was not systematically evaluated using standardised appraisal tools, which should be considered when interpreting the findings of this review.

Furthermore, the review protocol was not prospectively registered in an international database such as PROSPERO. Although protocol registration is not mandatory, its absence may reduce methodological transparency and limit the ability to assess potential deviations from the original review plan.

6. Conclusions

This systematic review indicates that the COVID-19 pandemic affected athletes through a combination of physical, psychological, and performance-related challenges. Pandemic-related restrictions disrupted training routines, reduced physical conditioning, and contributed to increased levels of stress and anxiety, while post-infection symptoms created additional barriers to recovery and return-to-play.

The available evidence supports the implementation of individualized rehabilitation strategies that integrate medical evaluation, physical reconditioning, and psychological support. Particular attention should be given to athletes presenting persistent symptoms or prolonged recovery following COVID-19 infection.

Given the heterogeneity of the available evidence and the predominance of cross-sectional studies, further longitudinal research is required to better understand long-term health outcomes, quality-of-life changes, and sport-specific rehabilitation

needs following COVID-19. Strengthening the evidence base in these areas may contribute to the development of more effective and evidence-informed return-to-play recommendations.

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