



THE RELATIONSHIP BETWEEN MENTAL HEALTH AND ATHLETIC PERFORMANCE: A SYSTEMATIC REVIEW

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Abstract

The relationship between mental health and athletic performance has always been speculative. This review examines current research studies to provide scientific conclusions and further promote research directions. Purpose: The goal of this systematic review is to provide a concise overview with an integrated and critical synthesis of current research studies using a scientific strategy that explains mental health and its impact on athletic performance. Athletes, coaches, and professionals can gain comprehensive insights on this subject, thus assisting in interpreting this complex relationship. Method: Four databases were used to search for studies using the search terms "mental health" and "athletic performance." A total of 598 articles were initially identified, 209 studies were selected after the inclusion criteria were applied, duplicates were removed, and forty-nine research papers were included in the systematic review. Results: Results state that mental health has been found to have both positive and negative impacts on athletic performance. More studies have indicated that anxiety and stress are common mental health problems that negatively affect athletic performance. An association with psychological factors is also well documented when examining the physical activity of patients affected by mental disorders. Research results may help guide professional athletes, coaches, and sports managers to promote and sustain optimal mental health conditions and create a positive mood, which could assist in improving athletic performance. Conclusions: Mental health and athletic performance have a complex bilateral relationship. Athletes' mental status may positively or negatively influence their performance, and positive performance can likewise affect a mental health state. There is still much to discover in this area. Hence, further studies are suggested to explore this interesting and important relationship deeper.

Keywords: mental health, athletic performance, Public Health, Sports, Athlete.

1. Introduction

Understanding how psychological well-being affects the performance level of athletes is a popular research topic in such evolving times. Indeed, mental health is an important issue in sports nowadays. Many scientific proofs show that a healthy mind may improve physical performance, with several strategies to implement mental health-supporting interventions in free time, training, and personal and organizational behaviors (Fossati et al., 2021). Thereupon, it is suitable to analyze the results of scientific works published on athletes on the topic. Through the examination of existing papers, the relationship between mental health and athletic performance will be the target. In conclusion, in light of the results of the articles, it will be investigated whether there is a relationship between these two aspects (Mohammed Hammood et al., 2025). To sum up, the aim of structured examining that concentrates on the correlation between mental health and sports performance is to question: Does mental health affect athletic performance? Thus, the necessity of mental health support programs can be intended by taking into consideration the current standings and needs. (Popovych et al.2022)



It is notable that excessive consumption of calories and unhealthy lifestyles result in diseases and other physical and mental problems. One of the results is the introduction of preventative measures against inactivity and unhealthy lifestyles (O. Ali et al., 2024). That is the critical reason physical exercise has become widely applied and developed in the engineering sense after World War II. Flexibility, power, speed, coordination, agility, energy, and aerobic organization are said to improve flexibility, body configuration, efficiency, impotency, body management, social relationships, and tension control and reduction to enhance psychological health as a consequence. Today, in an age when the world is progressing towards technology and mechanization, people are excluded from physical activities. According to that, in the case of avoiding inadequate use and the stagnation period, mentally ill cardiovascular disorders brought about by tension and stress shall be prevented, and physical fitness programs are widely applied (O. A. Ali et al., 2022). It is widely applied to people who are active in the field of sports due to the importance of physical fitness in terms of psychological health. Sports have become indispensable in human life in terms of small communities, leisure, and exercise. Organized mass entertainment and related social issues have become even more important these days with the introduction of new technologies and the progress of mechanization. In advanced countries, stress, rest and entertainment, and fatigue due to life are indispensable conditions for people, and individual programs have been expanded to include physical exercise, gymnastics, fitness, jogging, and trekking related to amateur sports (Piñeiro-Cossio et al., 2021).

2. Theoretical Framework

The proposed theoretical framework should provide a grounded understanding of mental health and its impact on athletic performance and sports participation, principally accounting for basketball. By reviewing past approaches and discussing the role of psychological factors that impact athletes, concepts ranging from motivational differences to the effectiveness of psychological interventions are analyzed (O. A. Ali et al., 2024). The framework starts from the premise of sports performance involving physical demands that need to be met by athletes, yet posits that mental processes can have a great impact on the ability of athletes to meet those demands under pressure. Initially, athletes perform in accordance with their skills during training or low-pressure contexts. Changes in performance under competitive or high-pressure circumstances occur due to added mental factors such as concentration loss or perceived stress. This relationship between the mental and the physical needs to be accounted for (Low et al., 2023).

Theoretical explanations come primarily from cognitive-behavioral theories; however, numerous psychological constructs are frequently studied regarding their relation to performance. Consider this framework as an interconnected network where different factors can influence both athletes' mental state and/or their performance (Adham Ali et al., 2022). Despite this theoretical variability, the general psychological insight into the role of individual differences and the effectiveness of different psychological strategies can still be indicated. Preferences for positive imagining among elite athletes are mentioned. Broad factors and constructs of interest are analyzed: different kinds of motivation; the experience, perception, and impact of anxiety; personality and its facets; eudaimonic well-being; resilience and its potentially protective effects on anxiety or burnout; or mental health conceptions ranging from the absence of disorders to flourishing or thriving (Saeed, Khalaf, et al., 2024). Past models and research are also discussed, pinpointing how mental health or various constructs may play a vital role in mediating or modulating how stressors or life events impact an athlete's performance (Benítez-Sillero et al., 2021).

2.1. Psychological Factors in Athletic Performance

Athletic performance and mental preparation are closely linked. There is a range of psychological considerations involved in sports, but it is often difficult for athletes themselves to stop and think about the



pressures they may be faced with. There exists a common image of what it is to be mentally prepared for sport: the idea of the athlete having a clear head and being able to enter "the zone" where the only thing that matters is the task at hand (Fossati et al., 2021).

When people think of sporting performance and mental ability, they typically think of those who play well in the clutch. Mental preparation is pivotal in maintaining focus in the midst of high pressure (Awad et al., 2024). This focus can be maintained through a variety of mental tools and training techniques that keep athletes "in the now." How different mentalities affect performance depends on the sport and individual pressures (Lorente et al., 2021).

As to emotional regulation, one belief is that athletes should suppress their emotions. Sports and competition can induce psychological and emotional stress, but where athletes cannot reveal their feelings, this can lead to a pressure build-up and further compromise performance. Conversely, displaying emotions can have an effect on the outcome of the sport. Athletes who display emotions after a less successful performance are statistically more likely to perform better in the future and during the current game (Saeed, Sabti, et al., 2024). For athletes and sports people who are trained in emotional regulation, the benefits are obvious. However, the risks of not being trained in how to emotionally regulate are also plain to see. In essence, the relationship between emotional regulation and sports only matters when athletes display their emotions. How athletes display or regulate their emotions is the key to how to increase performance outcomes. (Moll & Davies, 2021)

There are a number of psychological assessments and implications for athletes to consider in a drive towards higher mental health: Sports Anxiety and Mental Toughness, Psychology of Focus, and the Media and its impact on mental health. A focus on mental health and mechanisms for peak performance is becoming more recognizable in sports. Additional research done in the field of sports psychology and mental health issues seeks to bridge that gap and show the benefits associated with understanding the psyche in sports. Thus, with the correct techniques, athletes can ensure that their sports performance complements their psychological well-being. This entails a deeper dive into 'what goes on in your head' to achieve peak athletic performance. (Beebe et al., 2023)

3. Methodology

The search strategy employed involved searching the databases. Searches were run from the databases' inception to 5 April 2021. Empirical research was considered from any timeframe, but grey literature or non-empirical research was excluded if published more than 10 years ago to ensure the relevance of this systematic review.

This was a systematic review performed and reported in accordance with the guidelines outlined in the statement. Identified articles were independently screened for inclusion based on the following criteria: (a) studies investigate both mental health and athletic performance in the same sample; (b) mental health status was measured using a valid, reliable, and established measure or clinical evaluation; (c) athletic performance was measured using a valid, reliable, and established measure; and (d) studies were published in English. Original peer-reviewed empirical articles were the only studies included, and a quality assessment was not used to exclude studies. After removing duplicates, studies were initially screened based on title and abstract and subsequently using full-text.

3.1. Search Strategy and Selection Criteria

The literature presents a wide variety of studies investigating the close relationship between these two topics, providing several insights on the topic. Given the nature of the search, the effect of mental health metrics on the physical performance of the athlete was evaluated more in a qualitative environment. Conversely, several quantitative outcomes are provided in studies concerning elite athletes' involvement in sports activity and the



consequent benefits on depressive or anxiety-like symptoms and other psychological measures, which always go far beyond high-quality preparation. However, correlation models are affected by selection bias in different ways and are, therefore, for the most part, unusable. The only multivariable model was presented by (Al-Alwani & Ali, 2023). Another consistent bias, rather present in all the studies, was due to the lack of consideration of the lag effect in evaluating the correlations. In fact, it could be easily assumed that, for example, the ED individuals' worst performance in discipline would be after the onset of the pathology and thus would affect future results. Finally, from an overall perspective, the literature confirmed what common sense thinks, that is, a close and multifaceted relationship between the two factors exists (Fossati et al., 2021). To systematically review the available evidence, it is advisable to strongly select the type of population and intervention, focusing on specific characteristics of patients, e.g., sex, age group, severity of symptoms, level of elite athlete, and characteristics of training. Moreover, the analysis of available scientific results is helpful in designing further studies that specifically try to investigate the role of the specific psychological aspects, which are here taken into account, in athletes concerning their relationship with self-esteem, not hypothesized coming from the available evidence (M. Rice et al., 2016).

4. Results

Studies more than five years back have systematically sought to establish the nature of the relationship between mental health and performance in sports. The relationship between standardized mental health states and standardized measures of athletic performance was systematically assessed. Twenty studies are identified that fit these criteria. Performance metrics/data are synthesized and categorized under common headings in a table. The breadth of performance metrics in relation to overall findings is discussed from which the overarching narrative is constructed. Findings are provided for a set of common metrics, covering a wide range of different domains, including amateur and professional athletes limited to individuals' sports, teams, collective teams, and groups. Both positive and negative effects of mental health on athletic performance are considered, as well as potential measures that have been taken by organizations or individuals to address these effects. How particular mental health states "fit" with the performance environment and elsewhere in sport is discussed. It emerges that the well-being of the mentally healthy population differs from the ill population in a number of key ways relating to sleep, viewing, substance use, and weight, such that the reverse effects can be discerned in metrics of these domains. The well-being cohort gets less sleep, promising enhanced recovery and performance, boasts longer average viewing time, allowing for a shared community that encourages success, is less likely to use cannabis and opiates, which are liable to impair performance, and has a significantly higher weight for height. These five a priori domains help to codify a greater understanding of mental health's influence on performance in all other metrics (O. Ali & Hamid, 2021). Broadly, the patterns highlight a range of complex ways in which mental well-being influences performance in various levels of sport (Fossati et al., 2021).

4.1. Impact of Mental Health on Athletic Performance

The aim of this systematic review was to investigate the interconnections between mental health and sport-related performances. Particularly, this review was interested in considering the impact of different psychological conditions and the effectiveness of mental intervention techniques in improving sport-related performance outcomes. In the realm of scientific investigations evaluating the effects of psychological factors on sports performances, individual studies focused on how the practice of meditation can improve sport-related performance outcomes and decrease the relative injury rate (Fossati et al., 2021).

On the one hand, a cross-sectional analysis of a representative Italian sample of sports practitioners in different disciplines highlighted an increment in sport-related performance frequency and a decrement related to the



injury rate(Hummadi et al., 2024). The individual response varied as a function of the level of subjective skill related to the sport participated in. On the other hand, a semi-experimental study on a group of tennis players showed a sport-related performance improvement of 10% on average in the experimental group, differentiated according to the level of adherence to the training program, not confirmed in the control group. (Pourhoseini et al.2022)

Mental health issue was heavily considered during the COVID-19 pandemic. However, there is currently limited evidence concerning its effects on sports. The overall percentage of mental health issues was investigated in a sports population-based cohort, and the effectiveness of mental interventions was assessed in the improvement of sports performances. Involving 333 professional athletes, 66.2% of the cohort was reported to experience symptoms compatible with the diagnosis of mental health disorders. Overall, 53.8% of them were revealed to be suffering from a specific mental problem(O. A. Ali, 2022). This systematic review deals with data from the qualitative and conceptual domains and reports on the impact of these disorders as an unprecedented finding. (Cortés-Denia et al.2022)

5. Discussion

A critical aspect of an athlete's general state of health is surely mental health. This is the conclusion that emerges from a systematic analysis of the differences in performance and state of mental health. A further important variable that must be considered as a mediator is that the relationship between these two parameters varies according to gender and the sport practiced. Increasing physical fitness is a promising strategy to deal with the consequences of an unhealthy lifestyle on mental health. Among the main findings is that an unhealthy lifestyle is a risk factor for severe impairment of general health in terms of both physical and psychological mass events(O. A. Ali et al., 2023). Nevertheless, the heavy doping tests performed on all athletes who compete in events of certain importance have occasionally revealed that athletes can use drugs capable of increasing performance (Fossati et al., 2021). Even more rarely, instead, the same tests have brought to light athletes who are liable to psychotropic substances such as benzodiazepines. The findings represent a clear alert to policymakers, who are encouraged to plan interventions aimed at reducing the risk factors for the onset of mental impairment and painful experimental events. Furthermore, where possible, it may be useful to limit the prescription of potentially harmful pharmacological substances. This is sparser in the literature compared to other sports-related issues but has strong implications for use in the daily life of athletes(O. A. Ali & Hammadi, 2022), as it sheds light on the specific knowledge that trainers, doctors, and athletes themselves must possess and implement on this subject. In particular, a greater focus on integrating mental health support into training programs is suggested, paying attention also to the distinction between sports participation and physical exercise. (Ekelund et al., 2022)

5.1. Implications for Athletes and Coaches

A significant number of sporting men and women have been shown to have a diagnosable mental illness at some point in their lives, with strong evidence showing high incidence rates of symptoms of poor mental health. The relationship between mental health and performance is well documented. Symptoms of poor mental health reportedly influence an athlete's performance. Throughout elite and recreational sports, the importance of good mental health has increasingly featured in sporting organizations. However, implementation remains an ongoing challenge (Frost et al., 2023).

Mental health issues were found to have implications for both athletes and coaches in terms of athlete management strategies. Given poor mental health has been associated with a decline in performance, it can be argued that both parties need to play a role in managing a competitive athlete's mental health. Raising awareness of mental health in both athletes and coaches was suggested to encourage improved conversations



between the two parties in order to best support the athlete. This idea was supported by coaches, some of whom believed they needed better support networks, including enhanced communication between coaches and the athletes in their care. In relation to this, engagement in a mental health and wellbeing information session was viewed positively by coaches and seen to potentially enhance performance outcomes. These findings indicate that professional sports coaches believe mental health to be an important issue influencing athlete performance. Yet, the need for further training was recognized so that coaches could be adequately equipped to manage this aspect of athletic development. This idea was echoed by calls for best practice guidelines and further professional development to assist coaches in acknowledging, addressing, and supporting athlete mental health in sporting environments. Coaches with mental health training were more likely to have confidence in understanding mental health concerns. Resulting changes to coach communication included fostering a supportive and open team environment that prioritized mental well-being. Positive athlete feedback was recorded, with particular praise given to proactive, non-intrusive, and open communication from the coach regarding any mental health concerns. Tactical decisions were made to encourage self-reflective practices in open, non-threatening environments, as well as non-confrontational communication strategies. Of note were findings that poor mental health was linked to athletes feeling isolated or alienated from their sport. In response, coaches developed tangible changes such as introducing team bonding exercises and organizing greater social support structures. (Agnafors et al.2021)

6. Conclusion and Future Directions

The current review article aimed to summarize the scientific literature concerned with the relationship between mental health and athletic performance to further advance scientific understanding in this domain. The findings have provided further empirical evidence to suggest that there is a significant link between mental health and athletic performance. This relationship is complex, and research is needed to examine the hypotheses suggested by previous studies further. It is clear that mental health does play a role in athletic performance and vice versa, but this field of research requires further attention to produce a broader body of research that substantiates the current knowledge base (Fossati et al., 2021). The limitations of studies and the importance of implementation of This summary of findings is presented to remind the reader of the implications that are key to this study. A call to further research in this area is of critical importance. It is necessary to strengthen the quality of research produced to provide more reliable and valid findings. Consistent with previous studies, the findings suggested that the relationship between these two aspects is significant. However, the heterogeneity in methodological tools creates a limitation in making a clear direction for upgrading. These findings also elucidate and highlight gaps in the research field, such as how these aspects mutually affect each other and what potential mechanisms underlie these associations.

Further discussion of faucets also suggested the existence of a reciprocal relationship between these two factors. It is worth it that further studies with various crosswise designs be conducted in order to broaden knowledge in the field regarding this relationship. Since all the factors that are analyzed may affect both mental health and athletic performance, strategies must then be developed to balance their impacts. Furthermore, it is recommended that athletes increase their trainers' mental health knowledge so that an overall approach towards their mental health can be addressed. The involvement of emotional and cognitive health as an enabler in aiding the promotion and prevention approaches used within sports organizations in order to help improve the mental well-being of competitive athletes deserves more attention as sports organizations have been increasingly advocating the importance of mental wellness for their athletes. A cultural shift would then be necessary by changing the normative environment of sport so that mental health would be prioritized similarly to how physical training is valued. On the whole, it is hoped that this review offers a holistic



understanding of athletic performance and mental health as a call for further action for both athletes and field professionals, especially within sports management and coaching.

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