

## Self-Regulatory Strategies as a Means of Counteracting Burnout in Professional Athletes

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### KEYWORDS

sport, burnout,  
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regulation, strategies

### ABSTRACT

Introduction: The social transformations of our time point to the importance of training athletes with due regard for the important achievements of modern training methods. Objectives: The purpose of the proposed article is to study self-regulatory strategies as a means of counteracting burnout in professional athletes. Methods: The realization of the proposed goal involves the use of certain scientific methods, in particular, the content analysis of professional scientific literature, which takes into account both current trends in understanding and notes on the use of individual elements. Results: The results show that self-regulation is important for counteracting burnout symptoms. The processes of self-regulation in the work of athletes are associated with ensuring psychological and physiological comfort during training and performances. Physical self-regulation is the most saturated with self-regulatory practices. It combines control and regulation of muscle tone, control and regulation of movement pace, etc. Social strategies for avoiding burnout are related to support from family, friends and acquaintances. Conclusions: The conclusions note that creating a positive team environment is also a way to counteract burnout.

### 1. Introduction

In the system of modern sport, where competitions are becoming more intense and the requirements for physical and psychological endurance are increasing, the issue of professional burnout is becoming extremely relevant. Modern scientists have shown that burnout can significantly affect athletes' performance [1]. In particular, scientific studies have shown that burnout can reduce motivation and interest in sports, and failure to respond to this problem in a timely manner can even lead to the end of a career [3; 39]. For this reason, self-regulation is of particular importance, as it can serve as an effective means of counteracting this phenomenon. The relevance of studying individual self-regulatory strategies as a means of counteracting burnout in professional athletes is due to a number of important factors that characterize the modern sports world [34]. In particular, the constant intensity of training can lead to increased physical and mental stress on athletes. For this reason, high expectations of athletes or their coaches or fans can create additional pressure. At the same time, burnout is a serious problem that affects not only performance but also the overall health of athletes (both physical and psychological). In particular, it can lead to depression and chronic fatigue [39]. Finally, self-regulatory strategies can play an important role in the professional support of athletes' psychological resilience. The implementation of these methods can not only reduce the risk of burnout but also improve the effectiveness of the training process. Therefore, taking into account the above opinions, the study of self-regulatory methods is particularly relevant (primarily in terms of developing comprehensive support programmes for athletes).

Therefore, the purpose of this paper is to comprehensively study self-regulatory approaches that provide burnout prevention in professional athletes.

#### 1.1. Research questions

1. What are the features of burnout in athletes?
2. What are the causes of burnout in athletes and how to prevent them?
3. What is the role of self-regulation in the system of combating burnout?
4. What are the self-regulatory strategies as a means of preventing burnout in professional athletes?

## **2. Literature Review**

Modern researchers have described various aspects that lead to burnout in professional athletes. In particular, frequent competitions and intense training can negatively affect the desire to play sports [1; 3; 31]. In addition, frequent injuries or lengthy recovery processes can reduce motivation and lead to feelings of hopelessness. Choi, Jeong & Kim (2020) found a direct link between coaching behaviour and athlete burnout [4]. The authors also identified how communication and the relationship between coach and athlete can contribute to this relationship. At the same time, DeFreese, Madigan & Gustafsson (2023) described trends in research on burnout in sport [12]. The authors also highlighted different stages and key discoveries in this complex psychological topic [6]. di Fronso & Budnik-Przybylska (2023) described various psychological interventions in sport that aim to improve performance and well-being in modern athletes [7]. These authors also described a variety of intervention methods used to support psychological health. García, Fong & Regalado (2023) described the motivational and self-regulatory factors associated with student-athletes' achievement [8]. The authors found a direct correlation between performance and success and improved motivation in athletes. Glandorf, Madigan, Kavanagh & Mallinson-Howard (2023) described the individual mental and physical consequences of burnout in athletes, and the authors also identified the general effects of burnout on athletes' health [9]. On the other hand, Gould & Whitley (2009) described different sources and consequences of burnout among student-athletes [10]. Importantly, the authors drew attention to the key factors that lead to burnout and how they affect sport and academic performance. Overall, the authors concluded that there is a direct link between sport performance and the factors that cause burnout. Gray et al. (2023) investigated the impact of resilience on burnout and well-being among contemporary athletes [11]. The authors determined that the trait of resilience can significantly influence the risk of burnout and support psychological well-being. Thus, given the above, the study of individual self-regulatory strategies is relevant and important for the formation of comprehensive programmes to support professional athletes in the future. At the same time, modern authors have not fully investigated the impact of self-regulatory methods on improving the performance and psychological state of athletes, so the topic of the impact of self-regulation on burnout is still important and needs to be studied more.

## **3. Methodology**

The qualitative approach is used to characterise the main approaches to the study of self-regulatory approaches as a means of counteracting burnout in athletes. Thus, the study is formed by analysing modern scientific literature. Data were collected using modern scientific and metric databases. For this purpose, such databases as Scopus, Ebsco, Web of Science, Index Copernicus were chosen. These databases were chosen because they contain peer-reviewed articles and authoritative materials. Key words such as "athletes", "burnout", "self-regulation", "methods", "professional sport", "training of athletes" were entered into the search queries of these databases. A total of 1019 results were obtained. After that, the range of dates of inclusion of the literature was reduced to 2009. Thus, the number of search results decreased to 773 items. The next step was to include works by Asian, American and European authors. After that, those works that were not written in English were excluded. If they were not written in English, but contained a significant scientific novelty, the study had to have an English-language abstract. Thus, the list of references was reduced to 472 items. After that, an overview analysis of the headlines was carried out and those results that were not related to sports were excluded (321 items were obtained). Later, those works that contain only general theoretical aspects of athletes' training and do not delve into their psychological state were rejected (201 items were obtained). Next, Only those papers that meet the following inclusion criteria were integrated:

1. The paper investigates the key aspects of burnout in athletes.  
 2. The study analyses the impact of burnout on athletes' performance.  
 3. The article describes different methods of self-regulation.  
 4. The study describes various self-regulatory aspects and their impact on athletes' performance.  
 In this way, 98 items of literature were selected. After that, a rigorous analysis of the selected works was carried out and they were included only if they met the following criteria:

1. The work contains scientific novelty.
  2. The work contains practical significance.
  3. The work has scientific novelty.
  4. Preference was given to the inclusion of empirical studies.
- In this way, 40 items of the most relevant literature were selected.

The data analysis was also carried out in stages. First, all the data of the article: author, year of publication, main results, and conclusions were transferred to pre-formed tables in Microsoft Word. This allowed us to find common trends and mechanisms that exist in the self-regulation system. In addition, it made it possible to identify the main causes of burnout in athletes. After that, the coding method was used to analyse the textual data. This made it possible to quickly interpret large amounts of data and find similar trends. The study also used a comparison method.

#### 4. Results and discussion

Burnout in professional athletes is a psychological phenomenon that occurs as a result of various factors, including prolonged physical, emotional and psychological stress (Trotter et al., 2023). In general, burnout is characterised by such factors as emotional and physical exhaustion, cynicism, and a decreased sense of achievement and competence.

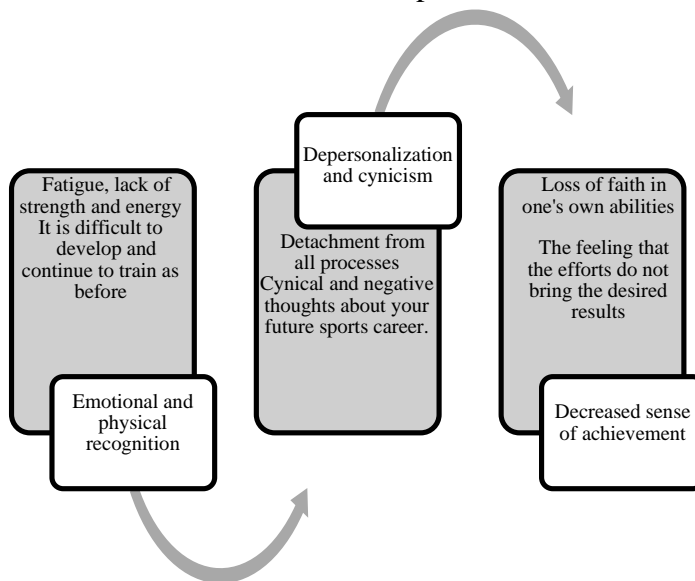


Figure 1. Main features of burnout in athletes

Source: Author's development

At the same time, the process of burnout in professional athletes can be caused by various factors, including physical, psychological a set of different factors that can be divided into physical, social, psychological and other [36]. All of them can have the same impact and lead to burnout and unwillingness to develop in sport [41].

Table 1. Factors contributing to burnout

Factors	Explanation
Physical factors	Intensive training Insufficient rest

	Frequent competitions Getting injured Long recovery process
Psychological factors	Too high expectations Constant pressure to achieve goals Monotony, monotony of training Psychological stress Stress before competitions, stress of performing in front of an audience
Social factors	Problems in the family Social isolation Feeling isolated from family or friends as a result of prolonged competition or training
Other factors	Lack of balance: inability to find a balance between sport and other parts of life (school, work, family, friends). Setting unrealistic goals - setting goals that are difficult and unattainable

Source: Author's development

Therefore, in order to prevent the emergence of these symptoms of burnout, it is necessary to exercise self-regulation. In the system of sports activity, an athlete's activity is aimed at achieving a result, and self-regulation processes are aimed at providing psychological and physiological means for the process of obtaining it, each of which is carried out by an appropriate regulatory process: goal planning, modelling conditions, programming the implementation of activity, evaluating and correcting results [5]. Due to the responsibility of sporting tasks, physical and psychological stressors at the limit of capacities, competitiveness, loads at the limit of possibilities, etc., sport activity typically occurs in conditions of high emotional tension. The ongoing threat of harmful influence from rivals, teammates, coaches, supporters, etc., is a major factor negatively affecting the athlete's personality. The target of psychological influences such as psychological pressure, aggressiveness, unfavourable criticism, manipulation, blackmail, deception, and so forth can also be the subject of sporting activity [2]. When an athlete is subjected to harmful psychological influence, they often suffer from adverse emotional and psychological outcomes. Sports activities become less effective as a direct result of this. However, no less significant are the delayed consequences of negative emotional experiences such as discomfort, frustration, fear, increased levels of situational and personal anxiety, and complications of interpersonal relationships. In these aspects, self-regulation is particularly valuable. The current literature identifies several ways of self-regulation. The authors of this article have divided these methods into physical ones - those that prevent burnout on a physical basis, spiritual ones - those that prevent burnout on an emotional or psychological basis, and social ones - those that prevent burnout by regulating the social sphere.

Physical self-regulation is the most rich in special techniques. It can be implemented by controlling and regulating the tone of facial muscles. This strategy requires special preliminary training. The greatest result is achieved only when, in the process of mastering this method, the athlete can test and consolidate it in different situations. An important indicator of professional mastery of this method is the ability to feel the absence of muscle tension [13; 14; 22]. A further method is the control and regulation of the athletes' muscular system. Modern scientists have proven that mental tension directly causes physical tension. Training in the muscle relaxation system is carried out with the help of verbal orders that cause the mind to focus on individual muscles. Emotional tension, along with muscle stiffness, can lead to an increase in the usual pace of movement and speech. As a result, the athlete begins to fuss or rush unnecessarily. Therefore, it is important to control and regulate the pace of movement. At the same time, constant, calm, even breathing helps to control emotions and reduce anxiety. In the system of self-regulation exercises, an important role is played by discharge, which helps to release emotional tension. As a rule, discharge is carried out in the form of a warm-up. Also important is the appropriate and individual training periodisation for each athlete. In particular, it is worth planning training cycles consisting of periods of active loading, recovery and rest. The intensity and type of training should also be varied to avoid overload [38]. A separate role is also played by rest

and nutrition. In particular, it is necessary to get enough sleep (7-9 hours per day) to restore the body and eat a balanced diet. The athlete's diet should include all the necessary macro- and micronutrients, and he or she should consume enough water to maintain hydration. An additional role is played by the use of massage, physiotherapy, cold and heat treatments to relieve muscle tension and recovery.

An important role is played by those ways that help regulate certain emotional or psychological factors that contribute to the onset of burnout. In particular, researchers note that distractions through storytelling help to recreate and preserve images from the past (primarily those related to calmness and success) in the subconscious. This technique is very important for self-regulation of emotional states. Another important technique is self-hypnosis, i.e., during training, an athlete can give himself or herself certain orders or instructions. Psychological support also plays an important role in this system of spiritual self-regulation. At the same time, it is also worth setting realistic and achievable goals, and breaking large goals into smaller and more achievable steps [23; 19]. Self-support should also be considered, which consists of developing positive self-talk and the ability to cope with negative thoughts. The Wachowskis also recommend using the ritual of pre-competitive behaviour. It is based on certain stereotypes that cannot be broken or changed, especially in major competitions, and therefore its implementation becomes a calming factor in itself. In addition, it is necessary to use such methods of psychological preparation of athletes for competitions that would ensure psychological safety and psychological calm during the competition itself, in particular, control measures that consist of holding competitions in a certain sports team. These events are necessarily characterised by such elements of psychological tension as sports competition, the desire to win, and the spirit of competition. It is important that these control events are attended by loved ones or outsiders. At the same time, social strategies are aimed at supporting friends or family, creating a positive team environment in which each athlete feels part of a community. Implementation of joint activities, training and recreation to increase team spirit [28]. It is also worth developing a professional network, including communicating with other athletes and coaches to share experiences and support, and participating in professional seminars or workshops. Table 3 summarises all of these strategies into a number of blocks (see Table 3).

**Table 3. Strategies and description of their implementation**

<b>Strategies</b>	<b>Description</b>
Physical self-regulation	Control and regulation of facial muscle tone Control and regulation of the muscular system of athletes directly Training in the system of muscle relaxation with the help of verbal orders Control and regulation of the pace of movements Periodisation of trainings Rest mode Balanced nutrition Recovery procedures
Spiritual (psychological) self-regulation	Distraction by means of storytelling Self-hypnosis Psychological support Relaxation techniques Setting realistic goals, dividing large goals into smaller steps Self-support Ritual of pre-competitive behaviour
Social self-regulation	Positive team environment Support from friends and family Active communication with close people Developing a professional network to share experiences Participation in professional seminars and trainings

Therefore, in order to effectively prevent burnout in athletes, it is necessary to apply comprehensive strategies that take into account both physical, psychological and social factors. The results showed that fatigue, cynicism, and unwillingness to develop in sport are important features of burnout. Burnout in athletes is also determined by physical and psychological exhaustion, loss of motivation and a negative attitude towards sport. As noted by Gustafsson, Madigan and Lundkvist (2017) [12], burnout



can also manifest itself in three main aspects, in particular, the researchers identified such features as emotional exhaustion, depersonalisation and a decrease in personal achievement. This is in line with the findings that physical fatigue, psychological stress and social isolation are the main features of burnout. These features are also emphasised by other researchers [29; 27]. It was found that the causes of burnout are diverse and consist of various physical, psychological and social factors. These findings on the causes of burnout are confirmed by other researchers [30; 26]. In addition, Kang and Kim (2021) indicated that intense training and insufficient rest are important causes of burnout among elite athletes. Jung, Lim, and Choi (2019) [15] added that inappropriate coaching behaviour and a negative team atmosphere also contribute to burnout [4]. In general, measures that reduce physical and psychological stress should be implemented to prevent burnout. The results determined that self-regulation is important in the system of counteracting burnout, as it allows athletes to control their physical and psychological state and adapt to stressful situations. Rogowska and Tataruch (2024) also emphasised that self-regulation, in particular through the development of emotional regulation and mindfulness skills, can significantly reduce burnout [26]. The findings also supported these views and pointed to the importance of self-regulation, in particular through the implementation of various physical, psychological and social strategies. The results also found that self-regulation strategies consist of physical methods (e.g., adequate rest and nutrition, discharge, training periodisation), psychological methods (e.g., distraction, self-hypnosis, realistic goals), and social methods (e.g., family support, positive team environment, communication with other athletes). At the same time, the results of Liang et al. (2016) are important, as the authors additionally noted the importance of motivation and emotional support in preventing burnout [18]. This issue was also emphasised by other researchers who identified the importance of motivation [21; 32; 40].

Lee and Oh (2024) also emphasised the importance of social support in reducing burnout and increasing engagement in sport [17]. Psychological safety also plays an important role in this whole system [20; 33; 37; 24]. Therefore, having considered the strategies of athletes' self-regulation during preparation for and during competitions, it seems important that the psychological safety of an athlete, which is a conscious attitude to their professional activity and professional development, ensures the physical and spiritual development of an athlete. Therefore, the scientific novelty of this study is a comprehensive characterisation of self-regulation strategies to counteract burnout in athletes. The limitations of this study include a clearly defined date range: from 2009 to 2024, so works outside this range were not considered. Another important limitation is the subjectivity that may be present in the selected works. Despite these limitations, the study has practical relevance and will help to develop practical solutions to counteract burnout through the use of self-regulation in the future. The proposed methodology allowed us to draw certain conclusions, but it should be noted that it has certain limitations. The fact that the sample of sources covered primarily the most recent publications with few exceptions (since 2009), but it is also important to take into account that important research findings could be useful even if the works were created in an earlier period. The issue of self-regulatory strategies in sport has a long history of research that is worth considering. Although current research to some extent takes into account the existing scientific experience, it is possible that certain still relevant trends that could form the basis for future research are missed. Another methodological limitation is the emphasis on English-language studies, which diverts attention from important achievements of other researchers if their works are written in other languages. These remarks do not detract from the significance of the results, but point to further possible vectors of development of the proposed topic.

## **5. Conclusion and future scope**

Thus, the process of burnout in professional athletes can be caused by various factors, including physical, psychological and social. All of these factors can have the same impact and lead to burnout and unwillingness to develop in sport. To prevent the onset of burnout symptoms, self-regulation is essential. In the system of sports activity, an athlete's activity is aimed at achieving a result, and self-regulation processes are aimed at providing psychological and physiological means for the process of achieving the result. Each activity is regulated by appropriate processes: goal planning, modelling

conditions, activity programming, evaluation and correction of results. Physical self-regulation is the most rich in special techniques. It includes controlling and regulating muscle tone, controlling and regulating the pace of movements, discharging through warm-ups, individual periodisation of training, recovery and rest. Methods that help regulate emotional and psychological factors that contribute to burnout play an important role: self-distraction, self-hypnosis, dividing large goals into smaller and more achievable ones, and self-support. Social strategies are aimed at getting support from family, friends and teammates. Creating a positive team environment where each athlete feels part of a community is important for boosting team spirit. Joint activities, training and recreation contribute to this. Therefore, comprehensive self-regulation strategies that include physical, psychological and social aspects play an important role in preventing burnout in modern athletes.

### **Conflicts of Interest**

The authors declare no conflicts of interest regarding the publication of this paper.

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### **Author Contributions**

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