

# Elite Sport and Sustainable Psychological Well-Being

Subjects: Psychology

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It is well known that moderate and vigorous exercise is highly beneficial for mental health, but the area of psychopathology in sport is much less addressed. There is often a belief among the public (and professionals) that the prevalence of mental disorders among elite athletes is low. This may be due to an over-idealization of elite athletes or the assumption that only mentally strong people can be successful athletes, which in turn implies that there should be no place for people with mental health problems among elite athletes

Keywords: elite athletes ; mental health ; mental disorders ; psychopathology ; depression ; anxiety ; eating disorders ; substance abuse

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## 1. Introduction

It is well known that moderate and vigorous exercise is highly beneficial for mental health, but the area of psychopathology in sport is much less addressed <sup>[1][2]</sup>. There is often a belief among the public (and professionals) that the prevalence of mental disorders among elite athletes is low. This may be due to an over-idealization of elite athletes or the assumption that only mentally strong people can be successful athletes, which in turn implies that there should be no place for people with mental health problems among elite athletes <sup>[1][2]</sup>. Recently, there has been much discussion about the mental health of elite athletes—maintaining mental health and preventing mental illness have become a major challenge in the modern world <sup>[3]</sup>. The International Olympic Committee has issued a consensus statement <sup>[4]</sup>, outlining what disorders have been identified in athletes and making several suggestions on how to deal with them. This statement is primarily a message that researchers should pay a lot of attention to the mental health of athletes if researchers want sport to be a safe environment in which they can reach their full potential. They specifically point out that there are many barriers to reporting mental health issues, such as stereotypes and lack of support systems—the need for this has been emphasized in other studies <sup>[5]</sup>. Sustainable mental health requires that researchers overcome stereotypes and work to create an awareness of the need to discuss and openly address mental health issues. Recognition of increased risk for psychopathology becomes particularly valuable in protecting mental well-being in a sustainable way. This point has been highlighted in recent calls for an early intervention framework for elite sport <sup>[3][4][5]</sup>.

## 2. Mental disorders related to elite sport

When researchers talk about mental disorders related to elite sport, one of the most commonly represented is depression. Depression is a widely used term. It refers to both a general low mood and a psychiatric syndrome <sup>[6]</sup>. Previous epidemiological studies on this topic suggest that depression is about as common in athletes as in the general population <sup>[6][7]</sup>, with some studies finding even higher rates of depression in athletes than in non-athletes <sup>[8][9]</sup>. The typical symptoms of depression for this subgroup may vary slightly. For example, the “classic” depressive symptom of sadness is less common in athletes, and symptomatology is more likely to take the form of irritability, decreased functionality or performance in training and competition, loss of enjoyment in competition, overtraining, and abuse of alcohol and other psychoactive substances <sup>[6][10]</sup>. Weight loss is also common, so depression in athletes can often be mistaken for anorexia. Injured athletes tend to experience mental distortions (e.g., about the end of their career), while athletes who have recently ended their active sport careers may experience a sense of loss of control and incompetence for life outside the sports arena <sup>[6][10]</sup>. Overtraining, social relationships, “sports retirement”, and sports injuries or the psychological consequences of post-injury reactions have been identified as important risk factors for the development of depression in athletes <sup>[1]</sup>. Several studies have also shown that elite athletes are also affected by depression. Empirical evidence suggests that it is an important finding, although researchers still point out that too few relevant studies have been conducted <sup>[2]</sup>. In particular, there are a lack of studies that conduct clinical examinations on athletes.

The prevalence of anxiety disorders in the general population ranges from 10.6% to 12.0%, while the prevalence in elite athletes is 8.6% <sup>[11]</sup>. Female athletes have significantly higher levels of anxiety symptoms than male athletes. Studies

indicate several factors that are significantly associated with anxiety symptomatology in elite athletes. These include female gender, younger age, and recent negative events. Musculoskeletal injuries and dissatisfaction with athletic career are important sport-related factors in anxiety disorders [12]. As in the general population, anxiety symptomatology is frequently associated with depression, and several anxiety disorders often co-occur, making it difficult to study anxiety as such [7]. The most common disorder in French athletes (of both sexes) is generalized anxiety disorder (GAD), which is most prevalent in esthetic sports and in females [13]. Female athletes with GAD were more likely (44%) to have panic disorder, panic disorder with agoraphobia, and obsessive compulsive disorder. GAD was also significantly associated with depression, anorexia nervosa, and bulimia nervosa [7][13]. Higher anxiety in athletes was associated with negative patterns of perfectionism [14].

Regardless of the consequences (poorer outcomes, loss of salaries and scholarships), athletes abuse psychoactive substances. According to various studies [6], substance abuse is reported to be higher in athletes than in non-athletes in the general population. A review of studies shows a positive association between sports participation and alcohol consumption. In addition, no study that has looked at substance abuse in athletes has demonstrated the protective effect of sport in terms of lower alcohol consumption. Alcohol abuse varies by gender, age, sport, and quality of athlete. In general, alcohol abuse is most common among older elite athletes in team sports [2]. Athletes abuse alcohol to relieve stress or as a reward for good performance. Some athletes report that their alcohol abuse has caused them to perform worse in competitions or training [2]. However, sport also proves to be a protective factor in the area of substance abuse, as athletes are significantly less likely to smoke and abuse hard drugs than non-athletes.

### **3. Participation in organized sports**

The literature suggests that participation in organized sports provides some kind of protection against hopelessness, depression, suicidal thoughts and attempts, and that physical activity is associated with less frequent suicidal thoughts in men [4][15]. On the other hand, there is evidence that frequent physical activity is associated with suicide risk in women. Suicide is one of the greatest challenges for mental health professionals [14], it is among the twenty leading causes of death worldwide [16][17]. On the subject of suicidality in athletes, Baum [18] analyzed the medical literature from 1960 to 2000, finding 71 cases of athletes who had considered, attempted, or committed suicide; the latter occurred in 66 cases. The average age of athletes who committed suicide was 22.3 years, 61 participants were male and 10 were female. Baum reflected on the various etiological factors of suicidality in athletes. These include “athletic withdrawal”, certain personality traits (perfectionism), substance abuse, various first-axis psychopathologies (anxiety disorders, mood disorders, eating disorders (especially anorexia)), “pressure to win”, homosexuality, cultural influences, feeling unable to return to competitive sport after injury, and sexual abuse [18][19]. In this context, Iverson [20] mentions the significant impact of traumatic head injury.

Eating disorders in sport are well-researched. The prevalence of eating disorders is higher in athletes (13.5%) than in non-athletes (4.6%) [21]. Eating disorders occur more frequently in elite sports, far more often in women (although it should not be ignored that they also occur in men), and in sports where body weight affects performance and athletes must, therefore, be lean. In these sports, the percentage of athletes with an eating disorder has been reported to be as high as 47% [22]. Eating disorders vary by sport. Generally, more eating disorders are found in sports with weight classes (martial arts, rowing), further in sports where style is valued (gymnastics, figure skating) and in sports where low body mass is an advantage (ski jumping, sport climbing) [23]. Disorders are more common in athletes who are losing weight to improve performance, athletes who are dissatisfied with their self-image, and/or athletes who have a long history of underperformance. Athletes often have eating and exercise behaviors similar to anorexic patients, but do not meet all criteria. Researchers have begun to use the term *anorexia atletica* to distinguish one disorder from another [23].

Much of research has been conducted on personality in sports [24]. In recent decades, researchers in this field have generally been divided into two camps. While the first group held that personality was significantly related to athletic performance, the second group took a skeptical perspective and argued that personality was unrelated to athletic performance [24]. More recent reviews of the topic (better measurements and conceptual approaches) indicate that research often reflects differences between athletes and non-athletes; these differences are expected to be relatively small but consistent [24]. McKelvie [25] compared athletes and non-athletes using the Eysenck personality model and found that athletes exhibited lower levels of neuroticism. The traits of extraversion and conscientiousness are relatively more prominent in athletes compared to non-athletes, whereas the trait neuroticism is lower in athletes than in non-athletes [26]. Similar conclusions have also been reached by many previous researchers analyzing personality traits within the five-factor model of personality [27][28]. Compared to non-athletes, athletes have higher levels of inhibition, irritability, aggressiveness, fatigue, physical discomfort and emotionality, and lower levels of health concerns [29]. Higher scores on

the dimensions of conscientiousness, extraversion, and emotional stability (less neuroticism) were found in athletes of high-risk sports than in non-athletes and athletes of non-risk sports [30].

Researchers have also found higher levels of self-confidence, need for stimulation, and mental health in professional athletes than in non-professional athletes or non-athletes [31] and higher expression of the dimensions of impulsive stimulus seeking, need for stimulation, impulsivity, and activity, as well as a tendency toward lower expression of the trait neuroticism in mountaineers compared to non-athletes [32]. The comparison of athletes in individual and team sports showed that athletes in individual sports scored significantly higher on the dimensions of acceptance and sociotropy than athletes in team sports. No differences were found between the two groups on the dimensions of neuroticism, extraversion, and openness [26]. Athletes participating in individual sports showed higher levels of inhibition, irritability, aggressiveness, fatigue, physical complaints, openness, and emotionality, and lower levels of self-satisfaction, social orientation and health concerns [29].

In contrast to much research on personality in sport, the area of personality disorders in sport is extremely under-researched [25]. In a study of 100 Egyptian athletes, a structured clinical interview was conducted to diagnose personality disorders [25]. They found that personality disorders in athletes follow the standard DSM classification (the fifth version is currently in use). Obsessive compulsive, borderline, narcissistic, and mixed personality disorders were the most frequently expressed traits in athletes [33].

There are conflicting findings in the literature when it comes to psychopathology in sport. On the one hand, there is evidence that sport plays a protective role in the development of psychopathological disorders (e.g., eating disorders, depression, and anxiety disorders), while other research suggests that participation in sport may have an impact on the development of various mental disorders. Researchers can say that sport can contribute to psychological well-being because it can help people learn about themselves, but researchers also want to show that there is psychopathology in sport. This would then inform how training methods can be improved to help with early detection of psychological problems and allow for an environment where athletes can stay in sport and cope with their disorders. The aim of the present study was to determine the prevalence of mental disorders (particularly relevant to sport) among Slovenian athletes classified as Olympic, World and International level by the Olympic Committee of Slovenia (OKS). Researchers were interested in the prevalence of disorders among athletes of both genders and athletes of individual and team sports aged 18 years or older, namely the prevalence of depression, anxiety, suicide risk, substance abuse (alcohol and other illicit psychoactive substances), and eating disorders.

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