

2. MENTAL HEALTH SYMPTOMS AND DISORDERS IN ELITE ATHLETES

- 2.1. Terminology
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- 2.3. Overview of mental health symptoms and disorders in elite athletes
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This section provides an overview of the multifaceted aspects of mental health symptoms and disorders in elite athletes and an introduction to the IOC Mental Health Consensus Statement 2019.

2.1. TERMINOLOGY

Many terms are used when discussing mental health and occasionally these terms are used interchangeably. In this document we use the following terms with the following meanings:

Mental Health

A state of well-being in which an individual realises his or her own abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to his or her community.⁽¹⁴⁾

Mental health is personal and subjective, and includes:

1. a sense of internal well-being
2. feeling in line with one's own values and beliefs
3. feeling at peace with oneself
4. feeling positive and optimistic about life⁽¹⁵⁾

Mental Health Symptoms

Self-reported negative patterns of thinking, emotions and behaviours that can/may cause distress and/or interfere with functioning, including sports performance.⁽¹⁶⁾

Mental Health Disorders

Clinically diagnosed conditions which produce significant and persistent changes in a person's thinking, emotions and/or behaviours that are associated with significant distress and/or disability in social, occupational or other important activities, like learning, training or competition.⁽¹⁷⁾

Elite Athlete

The IOC Mental Health Working Group defined the elite athlete as an Olympic, Paralympic, professional or collegiate athlete, though it is acknowledged that this category is abstract and risks overlooking some individuals who have devoted significant time and effort to the pursuit of athletic excellence.⁽¹⁸⁾

REMEMBER:

Mental health exists on a continuum. An athlete can be mentally healthy, may have a mental health disorder, or may be in between experiencing mental health symptoms. Some mental health symptoms and disorders can have a wax-and-wane pattern, for example, periods of good mental health alternating with episode of sadness or depression.

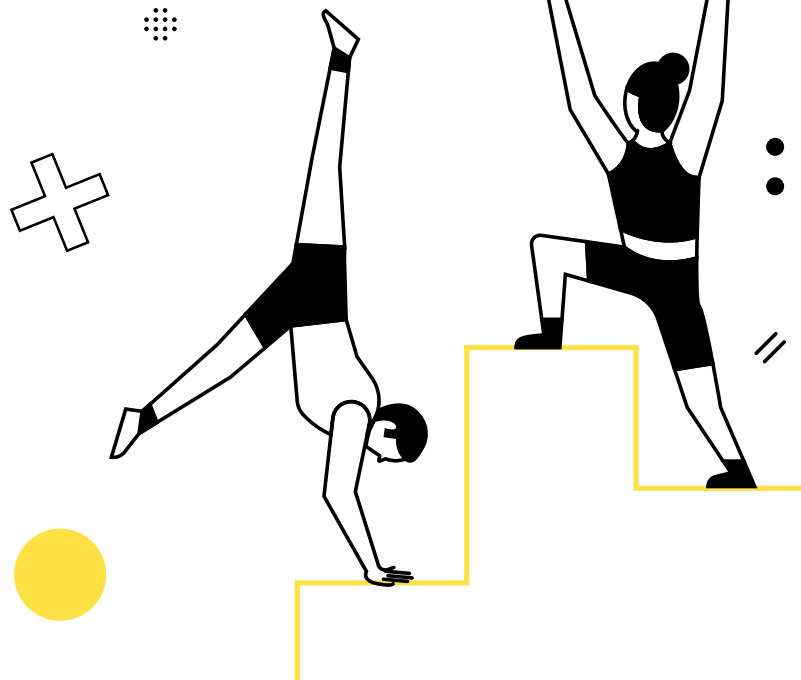
Athletes experiencing a mental health disorder can recover and have periods of optimum mental health, while athletes without mental health symptoms or disorders can experience times of poor mental health (such as feeling stressed or overwhelmed).

Therefore, it is important to improve understanding and awareness of mental health symptoms and disorders in elite athletes, to recognise the signs, and to create a culture that supports help seeking. We shall discuss each of these points in **SECTION 3** of the toolkit.

2.2. MENTAL HEALTH IN ELITE ATHLETES: INTERNATIONAL OLYMPIC COMMITTEE CONSENSUS STATEMENT (2019)⁽¹⁸⁾

In 2018, the IOC convened a consensus meeting at which a panel of 23 experts from 13 nations reviewed the scientific literature addressing mental health symptoms and disorders in elite athletes.

The expert panel screened 14,689 published articles, analysing the current best evidence to provide a consensus statement to inform clinical practice, guide individual and systemic interventions and improve mental health among athletes.



The consensus statement, which provides the foundation for this toolkit, addresses the following key areas:

Background and methods

Defines the mandate of the expert panel, the aim of the consensus paper, who it applies to, and the consensus process.

General prevalence of mental health symptoms and disorders in elite athletes

Provides an evidence-based overview of the prevalence of mental health symptoms and disorders in elite athletes.

General approaches to management of mental health symptoms and disorders in elite athletes

Outlines general management approaches including psychotherapy and pharmacological treatment.

Specific mental health symptoms and disorders in elite athletes

Considers specific mental health symptoms and disorders in elite athletes.

Major stressors and key environmental factors that influence elite athlete mental health

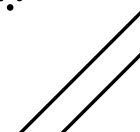
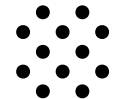
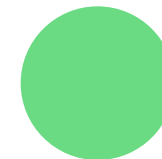
Shares the consensus findings on harassment and abuse; how injury, performance and mental health intersect; barriers to seeking care for mental health symptoms and disorders; the athlete's transition out of sport; mental health emergencies and how it may be possible to create an environment that promotes mental well-being and mental resilience.

Special considerations: mental health in Paralympic athletes

Details specific considerations related to mental health in Paralympic athletes, including prevalence.

Future directions

Provides 13 suggestions for possible future direction for additional research, change in clinical practice, and optimisation of environmental factors.



2.3. OVERVIEW OF MENTAL HEALTH SYMPTOMS AND DISORDERS IN ELITE ATHLETES

Regular participation in sport has been demonstrated to have a great number of benefits, including for physical, psychological and social health.⁽¹⁹⁾ There is also a growing body of literature that recognises the positive effects of exercise on mood states such as anxiety, stress and depression.⁽²⁰⁾ However, despite these well recognised benefits, elite athletes appear to experience levels of mental health symptoms and disorders similar to the general population.⁽²¹⁾ Some conditions such as eating disorders have even been found to be more common in elite athletes.⁽²²⁾

NOTE:

Some of the hurdles for athletes seeking help for mental health symptoms and disorders are stigma, either self-imposed or perceived through others, and low mental health literacy, meaning knowledge and beliefs about mental health disorders that aid their recognition, management or prevention.⁽²³⁾

Research has demonstrated that improving mental health literacy can assist athletes in seeking help.⁽²³⁾ This is why it is so important for everyone involved in sport to have an understanding of mental health symptoms and disorders in elite athletes and of the role that they can play in creating psychologically safe sporting environments in which athletes may train and compete.

You can find further information on the barriers to seeking care for mental health symptoms and disorders in [SECTION 3.2.3](#).

Studies have shown that the most common presentations of mental health symptoms and disorders in elite athletes include:

Anxiety

Excessive fear, anxiety-related behavioural disturbances (including phobias and panic attacks)

Depression

Persistent and pervasive sadness/low mood, excessive fatigue and loss of interest/pleasure

Sleep-related problems

Such as insufficient sleep, difficulty falling or staying asleep, or misalignment of sleep-wake patterns

Alcohol misuse

Includes drinking despite impaired function, harm and alcohol dependence.

Eating disorders

Disturbance of eating and related behaviours including excessive restriction, compulsive exercise, and/or bingeing and purging.^(18,23,24,25)

The IOC Mental Health Consensus Statement (2019)⁽¹⁸⁾ further identifies the following mental health symptoms and disorders in elite athletes:

- **Post-traumatic stress disorder** and other trauma-related disorders
- **Attention-deficit/hyperactivity disorder**
- **Bipolar** and psychotic disorders
- **Suicide**
- Other **substance use** and substance use disorders (e.g., drugs)
- **Gambling disorder** and other behavioural addictions.

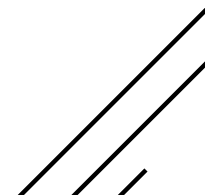
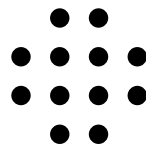
Just as in the general population, the impacts of mental health symptoms and disorders in athletes can be severe and debilitating. For athletes, those impacts may include poor performance, increased injury risk, delayed recovery from injury and decreased quality of life.⁽⁶⁾ However, with appropriate and timely support and intervention such impacts can be reduced.

Further information on mental health symptoms and disorders in elite athletes may be found in the IOC Mental Health Consensus Statement (2019). To read the full consensus statement, please follow [THIS LINK](#).

The IOC Mental Health Consensus Statement (2019) highlights factors likely to be associated with mental health symptoms and disorders in elite athletes. These include suffering severe musculoskeletal injuries, undergoing multiple surgeries, suffering from decreased sports performance or tending toward maladaptive perfectionism.^(26,27,28,29,30,31,32,33) These factors are discussed further in [SECTION 3](#) of this toolkit.

It is also important to consider that an athlete might have mental health symptoms or suffer from a mental health disorder with no apparent association between elite sports participation and the mental health condition.

It is incumbent upon those working with athletes to recognise the importance of athlete mental health and well-being to overall athlete health and performance, as well as educating athletes and all stakeholders surrounding athletes to recognise mental health symptoms and seek effective help.



2.4. PREVALENCE OF MENTAL HEALTH SYMPTOMS AND DISORDERS IN ELITE ATHLETES

Determining the prevalence of mental health symptoms and disorders in elite sport remains challenging, largely because elite athletes are not an easily reachable study population, and that reliable, valid, sport-specific screening instruments are scarce.

However, prospective studies have reported that mental health disorders occur in between 5 and 35 per cent of elite athletes.^(24,25,34,35,36,37,38) The infographic below details different mental health symptoms and disorders, and research results related to prevalence, as detailed in the IOC Mental Health Consensus Statement (2019).⁽¹⁸⁾

ANXIETY AND DEPRESSION

A 2019 meta-analysis found that 33.6% of elite athletes and 26.4% of former athletes reported symptoms of anxiety/depression.⁽⁶⁾

A 2020 study found a higher prevalence of anxiety and/or depression in female athletes (26.0%) compared to male athletes (10.2%).⁽³⁹⁾

33.6%



OF ELITE ATHLETES AND 26.4% OF FORMER ATHLETES REPORTED SYMPTOMS OF ANXIETY/DEPRESSION

SLEEP-RELATED PROBLEMS



49%

OF OLYMPIC ATHLETES WOULD BE CLASSIFIED AS "POOR SLEEPERS" (A TERM THAT INCLUDES MULTIPLE SLEEP PROBLEMS).⁽⁴⁰⁾

BIPOLAR AND PSYCHOTIC DISORDERS



A 2019 review notes that whilst evidence demonstrates that the typical age of onset of bipolar and psychotic disorders coincides with average peak performance in elite athletes, information on their prevalence in elite athletes and their impact on athletic performance is limited.^(40,41)

SUBSTANCE USE AND SUBSTANCE MISUSE DISORDERS



The substances most commonly used and misused by elite athletes across countries, sports and genders are alcohol, caffeine, nicotine, cannabis/cannabinoids, stimulants and anabolic-androgenic steroids.⁽¹⁸⁾

It is important to note that most of the prevalence studies cited on this page are from Europe and North America. They may therefore not be representative of all athletes. Further research to determine prevalence rates worldwide is required.

EATING DISORDERS

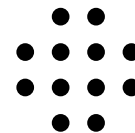
The estimated prevalence of eating disorders and/or disordered eating among athletes in general ranges from 0 to 19% in men and from 6 to 45% in women. These figures are higher than in non-athletes.^(43,44,45)

SUICIDE

In the largest study of suicide in elite collegiate student athletes in the USA, 7.3% of all athlete deaths were attributed to suicide. However, collegiate athletes still had a lower rate of suicide than individuals within the same age group in the general US population. A 2020 study found that 1 in 6 international athletics athletes reported having experienced suicidal ideation.^(46,47,48)

POST-TRAUMATIC STRESS DISORDER AND OTHER TRAUMA-RELATED DISORDERS

Athletes may encounter traumatic experiences from inside or outside sport, and such experiences may range from sports injuries to life events independent of a sports injury. Research on the prevalence of trauma-related disorders in elite athletes is limited.⁽¹⁸⁾



ATTENTION-DEFICIT/HYPERACTIVITY DISORDER

Though there is little data regarding the prevalence of ADHD in athletes, a 2020 study of 333 elite Swedish athletes found that 5.4% had symptoms of ADHD.⁽³⁹⁾

5.4%

OF ATHLETES HAD SYMPTOMS OF ADHD

GAMBLING DISORDER AND OTHER BEHAVIOURAL ADDICTIONS



A 2016 study investigating gambling among European professional athletes showed that 56.6% had participated in some form of gambling during the past year, and 8.2% had a gambling problem (either current or in the past).⁽⁴⁹⁾

ALCOHOL MISUSE

A 2020 study reported that hazardous drinking was found in 25.8% of athletes.⁽³⁹⁾

A 2018 meta-analysis found that 19% of athletes and 21.1% of former athletes reported symptoms of alcohol misuse.⁽⁶⁾

