

Sports psychiatry: a desideratum on sports arena!

Ahmed Naguy^{1*} , Saxby Pridmore² and Bibi Alamiri¹

¹Al-Manara CAP Centre, Kuwait Centre for Mental Health (KCMH), Shuwaikh, Kuwait, and ²University of Tasmania, Hobart, Tasmania, Australia

Review

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Author for correspondence:

*Ahmed Naguy,

Email: ahmednaguy@hotmail.co.uk

Abstract

The emerging field of sports psychiatry has been developing steadily in recent years. This is not just a health concern but is likely to impact sporting performance and achievement significantly. An overview of sports psychiatry is provided. Psychiatric disorders of all varieties can and do present in sporting populations. Sports psychiatry keeps evolving to drive forward the importance of good mental health in sport as in life.

The sports environment is one of high-intensity physical effort and competition often associated with stress and anxiety. Psychiatric disorders of all varieties can and do present in sporting populations (Table 1). The delivery of psychiatric services to this population is a health concern and is likely to impact sporting performance and achievement significantly. Athletes deserve quality psychiatric care as everyone else, yet, sorely, they often have difficulty accessing this due service.¹

The emerging field of sports psychiatry has been developing steadily in recent years. Nowadays, it is unusual, and increasingly becoming popular, for a sports club or team to have its psychiatrist—a specialist discipline requiring specific knowledge, skills, and approaches.²

As elite and grass-roots sports are calling upon psychiatrists to provide a service to their athletes and staff, there is a need to consolidate current psychiatric understanding and offer guidance from available literature on the topic.³

In this article, we will try to cover some insights and practical ways of managing the spectra of anxiety states and mood disorders that are so often seen in the sporting contexts, eating disorders, addictions and addictive behaviors, adult attention-deficit/hyperactivity disorder (ADHD), and the impact of athlete's personality on health and performance. In addition, the benefits of sport in general and sports psychopharmacology are briefly discussed. Finally, we would touch on a downside of sports—chronic traumatic encephalopathy (CTE).

The Sports Arena

The sports environment creates challenges for the work of the sports psychiatrist. The role of sports psychiatrists can encompass working at several different levels: with individuals, teams, management, coaches, and the sports medicine team. Sports psychiatry expertise can help athletes and coaches get the most out of each preparation phase and competition. Getting off to a good start within a sports team involves establishing boundaries and developing effective working relationships with coaches, athletes, and the support team. Helping athletes with injuries will be a common occurrence and can be both proactive and reactive. Proactive help includes developing coping strategies before an injury. At the same time, reactive interventions are directed at processing the event and planning for recovery and rehabilitation.⁴

The sports psychiatrist's competencies are the same as any psychiatrist, but with a sporting insight into individual and team culture. The sports psychiatrist should have sound diagnostic and reformulation abilities, combined with practical communication skills and interpretative analysis of information gleaned. Awareness of the complexities of medicinal prescriptions in the sporting world from a metabolic and “doping” aspect is required. It is essential to acknowledge the overlap and distinction from the psychologist's roles. Sports psychiatrists should take every opportunity to prevent, diagnose, and form treatment plans for mental illness within an accepted place in a multidisciplinary team rather than solely focus on performance.

In the following section, we will brief different psychiatric disorders as germane to athletic populations.

Adjustment and Anxiety Disorders

Degrees of anxiety are normal, ubiquitous, adaptive, and necessary for training and competition. Some athletes, however, develop more pervasive and incapacitating symptoms signaling an

Table 1. Psychiatric Disorders on Sports Arena

▪ Competitive/performance anxiety and clutch performances
▪ Muscle dysmorphia
▪ Misuse of performance-enhancers
▪ Exercise addiction
▪ Athletic identity
▪ Attention-deficit/hyperactivity disorder
▪ Dementia pugilistica

anxiety disorder that calls for a comprehensive evaluation.⁵ anxiety disorders are the most common mental disorders seen in sport and broadly fit into two distinct categories: adjustment anxiety and primary anxiety disorders.⁶

Significant comorbidities such as depressive disorders, substance misuse, and ADHD may be present. Adjustment anxiety commonly develops in relation to an identifiable stressor and usually last for weeks to months. Primary anxiety disorders tend to be more chronic.

Adjustment anxiety disorders commonly present with one of four subtypes—prominent insomnia, depression, aggression, or somatization.⁷

Primary anxiety disorders include specific phobias, social anxiety, generalized anxiety, panic disorder, and obsessive-compulsive disorder.

Recommended treatment approach mandates a collaborative model between a psychiatrist, medical teams, and support staff.⁸ Brief or time-limited therapies such as behavioral or cognitive-behavioral coupled with medications work the best. If natural social support groups around an athlete are fully utilized, and symptoms are identified early, outcomes are good.

Competitive or performance anxiety is a specific type of anxiety associated with the perceived threat of performing a task under undue pressure⁹ while competing in sport; athletes can experience psychological states ranging from one of “choking” quality where anxiety significantly inhibits performance to “flowing” where actions are readily effortless, easy and feel natural. “Clutch” performances refer to those where an athlete is seen to perform better under pressure conditions. An athlete’s mental state can negatively influence levels of attention under pressure. Athletes can decide the optimal mental state they would like to train and compete and seek help to achieve that state. To this end, different techniques abound with varying degrees of evidence-based. Each has its pros and cons and includes, among other things, cognitive-behavioral therapy, progressive muscle relaxation, diaphragmatic breathing, guided imagery, biofeedback, mindfulness, and so forth.¹⁰

Mood Disorders

Mood disorders (depression and bipolar disorder) are both common and potentially severe. While sports and exercise participation may be protective against mood disorders, and a sports environment also has specific risk factors.^{11,12} These include, for instance, the stigma of mental illness, physical injury, pain and unidimensional identity, loss of autonomy, unrealistic expectations, striving for perfectionism, lifestyle, misuse of anabolic steroids, and so forth.¹³ The stress of

overtraining may lead to widespread symptoms, including mood disturbance.¹⁴

A diagnosis can be missed if no inquiry is made. Screening tools and diagnostics can help probe symptoms. Suicide is the most severe complication of mood disorders. Risks, as well as protective factors, need to be assessed for every case. Treatments with good evidence-based outcomes are available that can be tailored to the individual.

Eating Disorders

Eating disorders are prevalent across all sports.¹⁵ This is particularly so in those where weight and physique have a direct impact on performance. These are esthetic sports (eg, gymnastics), endurance sports (eg, distance running), weight category sports (eg, judo), and antigravity sports (eg, high jumping).

Eating disorders negatively impact athletes’ health and performance as well. The sports environment has additional risk factors for those vulnerable to eating disorders.¹⁶ These include making weight, dieting, body weight, and performance, sports clothing, adverse life events, body as an object, derogatory comments, organizational culture, and timely access to treatment.

Risks, however, can be mitigated by adopting appropriate nutritional and coaching practices. Although early identification of eating disorders can be challenging, considerable benefits exist from prompt identification, assessment, and treatment. Sports coaches can have a crucial role in this regard.¹⁷ Recovery and rehabilitation require a well-keeled collaboration between the athlete, their support team, and the treating clinical team.¹⁸

A closely related disorder of body dysmorphic disorder, notably muscle dysmorphia, has been increasingly recently reported, especially in weightlifters and bodybuilders.¹⁹

Substance Misuse

Substances that are commonly misused in the general population are also misused in sport.²⁰ In addition, many athletes misuse performance-enhancing drugs. Latter includes drugs increasing muscle mass and strength (eg, anabolic steroids), increasing oxygen-carrying capacity (eg, erythropoietin), concealing pain (eg, opiates), relaxant (eg, beta-blockers), controlling weight (eg, diuretics), and so forth.²¹ Psychiatric expertise helps evaluate and address these problems.

Education and awareness will promote more effective screening and early detection. This increased likelihood of interventions being offered and of those interventions being effective in the meantime.²² Athletes’ stage of change is crucial in providing effective treatment and may itself be amenable to intervention. Sportspeople are by default motivated individuals and are, therefore, well placed to engage with and benefit from treatment.²³

A closely related phenomenon has been described—“exercise addiction.” This designation has been used to refer to those who exercise excessively or compulsively²⁴ (*A biological underpinning might be reinforcing. Release of endogenous opiates after exercising can be Page 7 of 13 <http://journals.cambridge.org/cns>, CNS Spectrums for Review Only 6 mood-elevating*). Many feel compelled to exercise to alleviate a negative mood state. There might be a rigid cognitive style where inflexible rules govern behavior. Exercise might subserve a means of weight control for those with persistent dissatisfaction with their perceived physical appearance.^{25,26}

Attention-Deficit/Hyperactivity Disorder

ADHD is a relatively common condition that emerges early in development may last into adulthood. Sufferers struggle to concentrate, especially on abstract tasks that require mental effort, to sit still, and to foresee adverse consequences of actions.²⁷ Coaches and others must spot ADHD, often aided by online and other screening questionnaires.²⁸

Once an expert confirms the diagnosis, behavioral techniques can be transformative. These should emphasize routine, structure, simplicity, and clarity of instructions, with checks to ensure they are comprehensible to the subject.

Among American footballers, the prevalence of previously diagnosed ADHD is circa 7%. This is approximately double the rate in the general adult population and suggests that ADHD is not a disadvantage in this setting. An association between attentional impairment and poorer verbal and visual memory has been demonstrated, but this population has no association with speed or reaction times. Furthermore, there is also a link between ADHD and sensation-seeking—a personality trait common amongst people who engage in contact and extreme sports. Such a person only feels fully engaged when immersed in exciting, potentially dangerous activity.²⁹

Finally, medical interventions (chiefly stimulants) are readily available and can be adapted to be acceptable, tolerable, and safe in the sporting arena.³⁰

Personality Disorders

No single personality type distinguishes athletes from nonathletes. Several personality traits, nonetheless, have been demonstrated to be overrepresented in athletes. These include extraversion, perfectionism, and conscientiousness. Personality traits can be functional and have been tied to high-level sports performance. Contrariwise, personality disorders do occur in athletes and can have a significant impact on functioning, particularly when managing stress and interpersonal relationships.³¹

Athletic identity, a measure of how much an athlete's involvement in sport defines their identities, can be both functional and dysfunctional for an athlete's performance and broader life as well. In assessing athletic identity, three factors are essential: social identity, exclusivity, and negative affect.³² On the one side, having a solid athletic identity correlate well with more frequent physical activity, greater fitness levels, more confidence socialization, more significant sports commitment, and possibly higher performance levels. On the other sides, a solid athletic identity does create risks, especially the exclusivity factor (where self-worth is dependent on athletic role). These include (maladaptive) overtraining, negative affectivity during injury, (prohibited) performance-enhancing drugs, and possibly difficult adjustments after retirement in the future.³³

Sports Psychopharmacology

Doctors have an overriding need to treat those who are ill. Thoughtful prescribing on an individual basis can often achieve this without compromising athletic performance. Following good prescribing practices as in any other clinical area is strongly advised.

There are special considerations when prescribing psychotropic drugs to those who exercise intensively and repeatedly. Most

importantly, side effects of psychotropic medications to consider in an athlete including- cognitive (eg, sedation and aproxia), motor (eg, tremors and rigidity), weight changes, visual (eg, blurring), sleep (eg, insomnia, nightmares, and hangover), psychological (eg, agitation), and cardiac (eg, orthostasis and arrhythmias).

There is a dearth of data to guide specific drug choices for athletes³⁴ (Table 2) and should bear in mind regulations regarding drug use in any sport and the need for Therapeutic Use Exemptions.

Chronic Traumatic Encephalopathy

A specific subtype of traumatic brain injury is CTE. It is a progressive, degenerative brain disease found in athletes and soldiers, with a history of repetitive brain trauma, including symptomatic concussions and asymptomatic subconcussive hits to the head³⁵ CTE to affect boxers since the 1920s. However, recent reports have been published of neuropathologically confirmed CTE in retired professional football players and other athletes who have a history of repetitive brain trauma. This trauma triggers progressive degeneration of brain tissue, including the build-up of an abnormal tau protein. These changes in the brain can begin months, years, or even decades after the last brain trauma or the end of active, athletic involvement. Brain degeneration is associated with memory loss, confusion, impaired judgment, impulse dyscontrol, aggression, depression, and eventually dementia. This was historically known as dementia pugilistica or punch-drunk syndrome.³⁶

Epilogue

The world of sport has its cultural environment with accepted norms, values, beliefs, and behaviors. Moreover, many sports consider themselves unique in culture and the physical, mental, technical, and tactical demands placed upon participants. An athlete presenting a mental health problem may experience similar symptoms to their nonathletic counterpart. Still, these aspects of the sports environment can affect the athlete's engagement with a sports psychiatrist and ultimately the outcome of this work as a whole.³⁷

Discussion of mental health problems remains challenging in many sports. Acknowledgment of mental health problems, or working proactively to stay mentally healthy, is erroneously considered a weakness and simply less important than other aspects of training and competition. Sports psychology is a more established support service in the sports arena but continues to face challenges around the openness of athletes to working with these professionals. A feature that this discipline has exploited is that it can be seen to impact performance directly. For the sports psychiatrist,

Table 2. Sports-Specific Psychotropic Choice

Depression	Sertraline; Agomelatine
Bipolar mood disorder	<i>Mania:</i> Aripiprazole; Quetiapine <i>Depression:</i> Lamotrigine; Quetiapine <i>Prophylaxis:</i> Lithium; Aripiprazole; Lamotrigine; Quetiapine
Anxiety	Sertraline
Psychosis	Aripiprazole; Quetiapine
Insomnia	Zopiclone; Zolpidem; Melatonin

prevention, treatment, and management of mental health are much harder to market at present.

A psychiatrist providing consultations to athletes with mental health problems will need to understand how these problems present and the context and the individuals they affect.³⁸ A psychiatrist seeking a role as an integral member of the support team of sports medical practitioners who work in high-performance sport may find that these opportunities are relatively rare. The role of the sports psychiatrist may need to develop a different way of working and a detailed understanding of the sports arena.³⁹ Sports psychiatry continues to evolve, focusing on providing good psychiatric care, wellness, functionality, disease prevention, and health.

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