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The Hidden Struggle: Review of Obsessive-Compulsive Disorder (OCD) Among Athletes

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ABSTRACT

Background. Obsessive-Compulsive Disorder (OCD) is a common mental health disorder, often associated with significant psychological stress and functional impairment [1]. It is characterized by the presence of intrusive, uncontrollable thoughts or urges (obsessions), alongside repetitive, excessive behaviours or mental acts (compulsions) performed in an attempt to reduce anxiety or prevent perceived harm [1].

Aim. This research article aims to discuss the prevalence, manifestations, impact and treatment of OCD among athletes.

Materials and methods. A targeted review of relevant literature was carried out using the PubMed database, using the following search times: "Obsessive Compulsive Disorder"; "physical activity"; "treatment".

Summary. The article highlights how Obsessive-Compulsive Disorder (OCD) in athletes can often go unnoticed, largely because perfectionism and ritualistic behaviours are so common—and even celebrated—in sports culture. For many athletes, obsessive thoughts may center around fears of failing, getting injured, or becoming contaminated. In response, they might

engage in compulsive behaviours like rigid training routines, strict superstitions, or repeated pre-performance rituals. Cognitive Behavioural Therapy (CBT), especially a method called Exposure and Response Prevention (ERP), is considered the most effective treatment for OCD. However, when working with athletes, therapists may need to tailor their approach to better fit the unique pressures and routines of sports life.

Conclusions. OCD poses unique challenges in sports medicine, where the line between discipline and dysfunction is often blurred and difficult to distinguish. Early detection, targeted, and tailored interventions are key to maintaining both mental health and athletic performance. Further research is needed to clarify prevalence rates, develop sports-specific screening tools, and assess the effectiveness of modified treatment protocols for this population.

Keywords: Obsessive Compulsive disorder, genetic syndrome, physical activity, mental disorder

1. Introduction

Competitive sports require athletes to demonstrate high levels of self-discipline, precision and routine – traits that, while essential for success, can also be linked to vulnerability to mental disorders and lead to mental health problems. Among them, obsessive-compulsive disorder (OCD) stands out as a mental illness that may be overlooked in sports. The International Classification of Diseases, 11th revision (ICD-11), characterizes OCD by persistent obsessions and/or compulsions that are particularly time-consuming and lead to significant distress or disruption in daily life. Obsessions refer to intrusive and unwanted thoughts, images, or impulses, while compulsions include repetitive behaviours or mental rituals performed in an attempt to neutralize or relieve the anxiety caused by these obsessions [2]. In the sports environment, where structured routines and perfectionism are often normalized and even celebrated, distinguishing between healthy performance strategies and pathological compulsions becomes especially difficult. As a result, OCD symptoms may go unnoticed or be misinterpreted as signs of dedication or resilience. This review is the first to examine the current literature on OCD in athletes, examining its prevalence, psychological correlates, impact on performance, and considerations for diagnosis and treatment in the unique context of sports.

The OCD cycle is a well-established psychological model that describes how intrusive thoughts (obsessions) can turn into compulsive behaviours (compulsions) as a way to reduce anxiety. This cycle can manifest in unique ways that are often masked by a culture of high performance, discipline, repetition, and perfectionism.

Aim of the study

This research article explores how OCD affects athletes by examining its prevalence, how it shows up in sport specific settings, its impact on performance and well-being, and the ways it can be effectively recognised and treated.

2. Materials and methods

A focused review of relevant literature was conducted to examine the relationship between obsessive-compulsive disorder (OCD), physical activity, and treatment approaches. The PubMed database was used as the primary source for this literature search due to its comprehensive coverage of biomedical and psychological research. The search was conducted using the following key terms: "obsessive-compulsive disorder," "physical activity," and "treatment." These terms were selected to identify studies that specifically addressed the role of physical activity as a potential component or adjunct to the treatment of OCD. The search strategy aimed to capture both clinical trials and observational studies, as well as relevant reviews, to provide a comprehensive understanding of existing findings and research gaps in this field.

3. Research results

OCD affects roughly 2.5% of the general population [3], however studies propose that mental health disorders, including OCD, are widely underrecognized in elite sports settings [4]. There are diagnostic ambiguities which arise from certain OCD-like behaviours such as rigid routines or pre performance rituals – are normalized or even encouraged in athletic culture [5]. This diagnostic ambiguity complicates recognition and intervention. Athletes often engage in pre-performance rituals-repeating specific stretches, listening to the same music, or wearing gear in a particular sequence. They usually do these actions to enhance their focus, reduce stress and improve consistency. Often coaches and other teammates may reinforce these behaviours, if they notice that they perform successfully, further embedding them into the athlete's routine.

The current literature tends to conflate normative sport-specific behaviours with pathological compulsions. The key is to distinguish patients between adaptive perfectionism and clinically significant OCD symptoms. Flett and Hewitt (2005) highlight the dual role of perfectionism in sport: whilst the most important enhances performance, maladaptive forms can drive compulsive behaviour and anxiety. The diagnostic boundary is blurred in elite sport, where repetitive routines, high demands and high control are often culturally sanctioned. This complicates doctor's ability to differentiate between sport-enhancing habits and obsessive-compulsive rituals.

Many athletes exhibit pathological exercise addiction. While high-intensity training is expected in elite sports, many athletes demonstrate an inability to rest or take time off, even when they face injury or illness. Although it is not directly linked to a formal diagnosis in the DSM-5, exercise addiction is often associated with OCD and other mental health disorders. In clinical setting, addiction to sport manifests as an excessive reliance on exercise as a coping strategy, which can lead to a cycle of compulsive behaviour and stress [6].

Similarly, Tortstveit et al. used the Exercise Dependence Scale (EXDS) and the ED Examination Questionnaire (EDE-Q) to examine exercise and eating disordered behaviours in male endurance athletes [7]. The results of their study revealed that athletes showing symptoms of eating disorders and biomarkers of relative energy deficiency in sport (RED-S) had a significantly more pronounced negative energy balance and elevated cortisol levels – a physiological marker of chronic stress. These findings underscore a significant psychological aspect: a compulsive urge to exercise and manage body image, often driven by obsessive thoughts and inflexible perfectionism. In some athletes, particularly those in endurance sports where thinness is emphasized, the compulsive nature of additional exercise may reflect behaviours associated with OCD, such as compulsive checking behaviours, for example, frequent body checking, calorie counting, or scale counting, intrusive fears of weight loss or poor performance leading to ritualistic exercise routines, and anxiety and distress when routines are disrupted [8].

Hausenblas and Downs (2002) were the first to describe the concept of exercise dependence, which overlaps phenomenologically with OCD, particularly in its compulsive and ritualistic dimensions [9]. However, the literature rarely distinguishes between OCD-driven exercise and exercise driven by body image concerns or performance anxiety, revealing the need for more

careful study design. Pathological disguise and sociocultural normalization as “pushing through pain” may obscure the pathological basis of such behaviours, which may only be uncovered through a thorough clinical assessment. Similarly, Cotterill et al. found evidence for the normalization of ritualized behaviour [10], however, these behaviours can become obsessive when they are driven by irrational beliefs or accompanied by significant anxiety.

Despite growing awareness of the mental health of athletes, preventive strategies for OCD remain underdeveloped and are often subordinated to general anxiety or stress reduction programs.

Early intervention is often hampered by athletes' reluctance to disclose symptoms due to stigma or fear of limited choice, as described by Bauman et al. Although mental health screening tools are increasingly used in sports settings, they rarely include OCD-specific items or behavioural markers, which limits their preventive utility. There is an overreliance on self-report measures among athletes, which may not fully capture the ego-dystonic and covert nature of OCD symptoms. [11].

Psychoeducation programs have shown a real potential in breaking down stigma and encouraging athletes to seek help when they’re struggling. These programmes are precisely designed to boost awareness, understanding, and build practical skills for managing mental health challenges. When it comes to preventing OCD In preventing OCD, psychoeducation helps by demystifying the disorder and reducing the stigma that often surrounds mental health in high-performance cultures. Athletes are taught how to differentiate helpful discipline from rigid, anxiety-driven routines.

Psychoeducational programmes address the warning signs of compulsive behaviours, for example repetitive exercises, ritualistic pre-performance routines, or an overwhelming fear of making mistakes that go far beyond athlete’s normal performance preparation. If an athlete will recognise these red flags early, they will more likely seek help before patterns become entrenched.

Educating about mental health may not only be provided to athletes, but also to coaches, families, and performance staff, which will create a support network around the athlete. Informing everyone within the inner circle about OCD and its manifestations in sports, athletes

will be better equipped to create environments that will prioritize psychological flexibility, encourage open communication with each other, and avoid reinforcing harmful behaviours or beliefs.

One of the main aims of psychoeducation is to address the underlying cognitive vulnerabilities associated with OCD. When introduced early, especially during adolescence, these programs can equip athletes with useful cognitive-behavioural strategies to manage perfectionistic thinking, handle uncomfortable feelings, and see failure as natural part of growth rather than a sign of personal failure. Learning these skills can help protect athletes from letting obsessive-compulsive behaviours take hold or get worse over time.

Bottoms et al. describes that exercise appears to reduce OCD symptoms based on pre- and post-analysis data, indicating its potential as a treatment option [12]. Similarly, Rector et al. reported that most patients with OCD continue to experience significant symptoms even after standard treatments such as CBT or medication. A pilot study found that adding a 12-week personalized aerobic exercise program to CBT led to very large improvements in symptoms, with larger effect sizes than CBT alone. These findings suggest that incorporating regular, structured exercise could be a valuable and practical way to boost the effectiveness of OCD treatment [13].

Introducing athletes with structured mindfulness practice can help ease anxiety and negative thinking that arespecific to their sport, such as in cyclists. Research suggests that mindfulness can reduce obsessive passion and state anxiety, which in turn lowers the pressure to engage in rigid training routines or compulsive behviours. Beyond clinical settings, mindfulness programs have shown strong reults in easing OCD-like symptoms by helping people learn to release intrusive thought [14–16]. Mindfulness encourages better self-control and lowers anxiety, supporting athletes in making training choices that reflect how they really feel rather than driven by compulsive urges. Clinical studies also indicate that therapies based on mindfulness, like mindfulness cognitive based therapy (MBCT) and acceptance commitment therapy (ACT) can effectively reduce OCD symptoms and boost mental flexibility.

4. Discussion

Cognitive behavioural therapy (CBT), particularly with exposure and response prevention (ERP), is considered as the gold standard therapy for patients suffering from OCD.

ERP helps patients gradually face their fears (obsessions) while learning to resist the urge to perform compulsive behaviours. This process breaks the cycle of anxiety and repetitive actions.

For athletes, ERP can be adapted to focus on performance-related triggers, such as the compulsion to repeat specific movements, stick to strict routines, or maintain rigid rituals. Research consistently supports the effectiveness of CBT/ERP in reducing the severity of OCD, with large effect sizes reported across a variety of populations [17]. Tailoring ERP therapy to the specific stressors and rituals seen in athletes, such as performance anxiety and compulsive behaviours, can improve both symptom management and athletic functioning.

The Sport Multidimensial Perfectionism Scale-2 (SMPS-2), created by John Dunn and Joachim Stoeber, has become a valuable tool in understanding how perfectionism appears in athletes. This self-assessment tool is tailored specifically for the world of sports, helping athletes and professionals better understand the many perfectionistic attitudes and behaviours can play out in competitive environments. It captures the unique and often complex nature of perfectionism as it related to sports medicine [18]. OCD often manifests itself as unwanted thoughts and repetitive behaviours rooted from a deep need for control, certainty, and perfection. These traits closely align with. What is known as maladaptive perfectionism, where the drive to be flawless becomes harmful rather than helpful. Haraldsdottir et al. also described that mindfulness training was associated with improved mood, reduced risk of injury, and increased preparedness, which is critical for sustainable performance under pressure [19].

Marazziti et al. conducted a study of current or former professional tennis players and conducted a psychiatric interview using established psychopathological assessments, including the Mini-International Neuropsychiatric Interview (MINI), the Yale-Brown Obsessive Compulsive Scale (Y-BOCS), and the Self-Assessment Scale for Depression (SAD). They emphasised that professional tennis players showed a noticeable increase in obsessive, compulsive symptoms, as well as superstitions compared to control subjects, particularly in active athletes compared to former athletes [20].

Selective serotonin reuptake inhibitors (SSRIs), such as fluoxetine, sertraline, and fluvoxamine, are a well-known class of antidepressants which are used to treat OCD. A symptom reduction has been proved in multiple randomized controlled trials, as reviewed by Pinon et al. [21]. SSRIs increase the level of serotonin in the brain, a neurotransmitter that plays a key role in mood regulation, emotionality, and anxiety. Serotonin is often imbalanced in OCD, reducing obsessive thoughts and compulsive behaviours that can interfere with training and performance. By attenuating these symptoms, SSRIs allow athletes to focus better, manage their anxiety

related to routines or competitions, and maintain mental clarity throughout work and during rest.

Newer therapeutic approaches – like metacognitive therapy, interference-based cognitive behavioural therapy, and habit reversal training (HRT) are showing promise in helping people manage OCD. These methods work by addressing the unhelpful thought patterns and compulsive behaviours at the core of the disorder, offering fresh tools for relief and recovery [22,23]. This approach may be particularly important for athletes who experience performance-related intrusive thoughts that interfere with training and competition.

5. Conclusion

Obsessive compulsive disorder (OCD) can be particularly difficult to recognize and manage in the world of sports medicine. The culture around athlete often highlights discipline, strict routine, and pushing for perfection, which can sometimes hide the warning signs of OCD. Athletes struggling with OCD may experience persistent fears, like worrying about making mistakes, getting hurt, or losing control and thereby respond with compulsive behaviours, such as repetitive training, rigid rituals, or strict control over diet and body image. These actions aren't just simply about being motivated or committed; they often come from deep anxiety and can negatively affect both how an athlete performs and their overall mental health.

Understanding OCD in relation to athletics is critically important. Early identification, especially through tools such as the Sport Multidimensional Perfectionism Scale-2 (SMPS-2) or other psychological assessments, can help distinguish healthy striving from maladaptive perfectionism. Effective intervention, such as cognitive behavioural therapy with exposure and response prevention, can support and empower athletes to break the OCD cycle while maintaining their passion and performance. Cultivating a mentally healthy environment supports long-term athletic excellence for optimal holistic wellness alongside continuous growth and personal evolution for athletes.

Disclosure

Author's contribution

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