



## Opinion

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# The Necessary De-Stigmatization of Mental Health Promotion for Sports Injury Prevention and Performance

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## Abstract

Mental health promotion for athletes remains a controversial topic that has yet to receive necessary attention. While there has been some progress regarding mental health promotion in recent years, the stigma regarding mental health promotion for athletes still remains. Athletes at all levels face immense pressures from their sport which has the potential to lead to chronic stress and mental health conditions that can lead to a decrease in athletic performance and potential sports injuries. In dealing with this, athletes may not have the necessary resources and may be stigmatized for addressing their mental health. In order to keep athletes healthy and performing at the highest level, we must break down the stigma regarding mental health promotion for athletes. In addition to breaking the stigma, resources for mental health counseling must be increased, athletic cultures and communications improved, and regularly screening athletes for mental health conditions. Mental health promotion must be de-stigmatized for athletes as it is necessary for sports injury prevention and peak athletic performance.

**Keywords:** Mental Health, Injury Prevention, Sports Medicine, Performance.

## INTRODUCTION

While there has been some improvement in regards to decreasing the mental health stigma surrounding athletes, there still remains a large stigma that athletes are not allowed to have any mental health struggles<sup>[1,2]</sup>. Having the resources to deal with difficult times is not only important for an athlete's mental health, but it is necessary for sports injury prevention and peak athletic performance. Discussion and research is scarce examining how extensively mental health promotion affects sports injuries and overall sports performance, but it is known to have an overall effect to help reduce injuries and improve performance<sup>[3]</sup>. The aim of this opinion article is to emphasize that destigmatizing and promoting mental health for athletes is necessary for injury prevention and optimal performance for athletes.

## Pressure, Stigma, Resources, and Stress

### Pressure to Perform

Athletes at the professional, collegiate, and amateur levels face intense pressure to perform in their sport<sup>[2]</sup>. Many athletes' careers can change unexpectedly from injuries or other illnesses. Struggling with performance can lead to athletes at the professional level losing their jobs, which can impact their ability to provide for their families. It can also cause loss of play and additional disruptions to education at the collegiate level.

In order to maintain their performance, athletes must dedicate hours to training and practice, which can be a mentally and physically draining task<sup>[4]</sup>. Many athletes must travel for competitions, which not only removes them from their daily habitat and social support, but it can also create a stressful environment<sup>[5]</sup>. Collegiate athletes in particular may face significant stress as a result of balancing their education in addition to the challenges of playing at a collegiate level<sup>[6,7]</sup>. In college, many athletes feel an intense pressure to perform in the classroom in addition to on the field<sup>7</sup>. While being a high-level athlete is a great opportunity, it comes with immense challenges and continual pressure to maintain a level of resilience and "tough" mindset, which creates a barrier to appropriately diagnose mental health conditions in this population<sup>[5]</sup>.

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## Athlete Mental Health Stigma

It is obvious that athletes face immense pressure that can be mentally and physically taxing. While there has been some discussion and efforts made to destigmatize mental health promotion in athletics, there still remains a large umbrella of shame around the concept of mental health struggles or other difficult times. Athletes are seen as strong figures in our society, and having struggles or difficulties is often viewed as a sign of weakness to competitors or the public<sup>[2]</sup>. This stigma has led many athletes to internalize their feelings. Athletes are at high risk to develop mental health conditions such as depression or anxiety due to this<sup>[4]</sup>. This stigma could lead to athletes quitting or losing their job, and turning to substance misuse or suicide. Mental health is a serious topic, and athletes should not face punishment, whether actual or perceived, for seeking help. Without mental health promotion, athletes may develop sports injuries<sup>[3]</sup> or decreased performance<sup>[8]</sup>, both of which could have the ability to decompensate an athlete's mental health<sup>[9,10]</sup>, causing a downward spiral effect in regards to both mental health and physical performance. It is clear there is a connection between sports injuries, sports performance, and mental health<sup>[9,10]</sup>, which makes mental health promotion critical in preventing injuries and improving performance.

## Current Resources for Mental Health

Resources for mental health are severely lacking at all levels of play<sup>[12]</sup>. Many high-level athletes do not have access to the resources necessary for them to seek help or treatment<sup>[12,13]</sup>. Teams may not have therapists or counselors readily available for their players<sup>[13]</sup>. These resources are necessary for athletes to discuss any problems that could be going on. Multiple studies have shown that collegiate athletes do not have the necessary mental health resources. These lack of resources will lead to athlete's internalizing their struggles, or leading to other potentially dangerous coping mechanisms<sup>[2]</sup>. This can then lead to changes in athletes hormones, which could then lead to injuries or decreased performance.

## Chronic Stress

Hormonal regulation is critical for injury prevention and sports performance. Athletes may develop chronic stress that can be due to the pressure of performance demands<sup>[14,15]</sup>. Chronic stress can have very negative effects, potentially leading to states of increased cortisol which can lead to additional negative effects on the body<sup>[16]</sup>. Elevated cortisol levels can lead to the breakdown of tendons, muscles, and bones which can have the potential to lead to sports injuries<sup>[17]</sup>. With this breakdown of the musculoskeletal system, athletes will be unable to perform at peak performance due to the inability to use their body at maximum potential. This could potentiate the stress put on the athlete's mental health. Therefore, high levels of stress and an excessive endocrine response can negatively affect sport performance<sup>[18]</sup>. Without the opportunity to manage stress through addressing mental health concerns or by offering regular mental health check-ins, athletes may have decreased performance and the potential for injuries<sup>[19]</sup>. Both of these things could further lead athletes to face additional mental health conditions.

## Mental Health Conditions

Due to the pressure and lack of resources available, athletes could face specific mental health conditions such as depression, anxiety, eating disorders, PTSD, and substance use disorders that may lead to injuries and decreased performance<sup>[2,4]</sup>. Many athletes are currently battling with these medical conditions. They are also of serious concern for an athlete's overall mental and physical health.

## Depression

Over the past few years, depression and mental health have become a hot topic of discussion. However, the discussion is still lacking when it

comes to depression among athletes across the amateur, collegiate, and elite levels of sport. Studies suggest that the prevalence rate of depression among college athletes may range from as low as 15.6% to as high as 21%<sup>[20]</sup>. In other words, roughly one in five athletes may be suffering from depression<sup>20</sup>. Depression among injured athletes is another topic of discussion, as injuries and setbacks can affect an individual's mental and emotional capacity to cope with the injury. In college football athletes, high levels of depressive symptoms were reported, as 33% of athletes with an injury and 27% of non-injured athletes could be classified as depressed<sup>21</sup>. Acute and chronic injuries can threaten the overall mental and physical well-being of an athlete, as athletes invest a significant amount of their life to training and performing. Depression among athletes has sadly resulted in suicide for some<sup>[22]</sup>. A few potential risk factors for suicide among athletes included a serious injury necessitating surgery, an extended rehabilitation process (6 weeks to 1 year), reduced athletic skills despite adherence to rehabilitation, a perceived lack of competence upon returning to sport when compared with preinjury levels, and being replaced by a teammate at their given position<sup>[23]</sup>. The push to intervene when athletes begin to present with depressive symptoms is crucial, as such interventions will ultimately prevent the devastating effects of depression.

## Anxiety

Extensive research has been devoted to understanding how anxiety can affect sports performance of athletes over the past few years, both in practice and in a competitive setting<sup>[24]</sup>. Many athletes across all sports are at risk of exhibiting anxiety or anxiety symptoms during their career<sup>[25,26]</sup>. It is currently believed that roughly 12% of collegiate athletes were at risk of developing anxiety<sup>[26]</sup>. Sports anxiety may lead to decreased performance and the potential for increased injuries in athletes. In addition to increased risk for injuries, anxiety may affect athletes returning to sport, and therefore, delaying their ability to get back to playing<sup>[24]</sup>. It is also well known that severe anxiety could lead to serious performance issues for athletes<sup>[27]</sup>. Previous studies have shown that cognitive anxiety is correlated with negative sports performance<sup>[28]</sup>. With many studies showing the negative effects of anxiety on injury and sports performance, it is clear that there must be interventions to help combat anxiety for athletes. Without interventions, anxiety can lead to athletes having negative performances and injuries that could be devastating to an athletes career.

## Eating Disorders

Athletes have rigorous training programs and must perform regularly during the competition season. Athletes of aesthetic and weight class sports, such as gymnastics and wrestling, often have extreme eating schedules and alternate between bingeing and purging behaviors to ensure their qualification for competition<sup>[29]</sup>. These behaviors predispose athletes to higher rates of poor eating habits compared to non-athletes. Although many athletes fail to meet the criteria for the diagnosis of anorexia nervosa or bulimia nervosa, the incidence of extreme diets and periods of bingeing and fasting are on the rise<sup>[29]</sup>. Although athletes at all levels of play face issues with their diet, adolescent female gymnasts report the highest incidence of clinical and subclinical eating disorders<sup>[30]</sup>. Since many of these adolescent athletes are undergoing puberty, adequate nutrition and eating habits must be reinforced to avoid long-term health complications. Given their subclinical presentation, many aberrant eating habits in athletes go undiagnosed and untreated. Eating disorders, even if subclinical, have been shown to cause decreased energy levels, nutritional deficiencies, thyroid abnormalities and loss of bone density<sup>[31]</sup>. Such extreme dietary habits predispose athletes to long-term health detriments, while increasing the likelihood of injuries and slower recovery times. Destigmatization of eating disorders in athletes, coaches and trainers is crucial for the implementation of better tools to diagnose and treat such mental health conditions. By providing the optimal balance

between high-performance training and rest with adequate nutrition, athletes can better ensure healthy lifelong eating habits.

### **Post Traumatic Stress Disorder**

Many athletes may develop Post-traumatic stress disorder (PTSD), and athletes are at higher risk than the general population for developing this condition<sup>[32,33]</sup>. Athletes may develop PTSD for a number of reasons such as previous injuries, seeing traumatic events, or abusive situations within teams or organizations<sup>[32]</sup>. PTSD is important as it may decrease sports performance in many athletes<sup>[32]</sup>. One additional major concern is that PTSD may delay recovery from injuries<sup>[32]</sup>, which in turn will keep athletes from returning to competition. This delay could potentially jeopardize higher level athletes careers due to not being available to compete. Studies remain scarce in understanding the entire spectrum of effects that PTSD may have regarding an athlete's injuries and mental state. However, it is clear that PTSD can have a negative effect on performance and delay recovery from injuries<sup>[32]</sup>. Further research is needed in the athlete population to better understand PTSD and the myriad of effects it can have on an athlete. In addition, PTSD identification and treatment protocols should be better solidified to help athletes receive the medical care they need to optimize their performance and overall well-being.

### **Substance Use Disorder**

Substance use disorder is a major challenge for many, and athletes are not exempt from it<sup>[34]</sup>. Professional athletes are actually more exposed to substances than the general population<sup>[34]</sup>. Athletes may use substances to either enhance performance or to cope with the challenges of being an athlete<sup>[35]</sup>. With high expectations to perform, athletes may turn to substances, such as stimulants, anabolic steroids, or other banned substances in order to increase performance or recovery<sup>[35,36]</sup>. With a rising pressure for athletic performance, the youth population has seen a corresponding rise in the usage of performance enhancing drugs<sup>[36]</sup>. Numerous professional athletes from many different sports have also been caught using performance enhancing drugs to help increase their performance<sup>[37]</sup>. In addition, these performance enhancing drugs can cause serious side effects and medical complications<sup>[37]</sup>. For example, anabolic steroid use may lead to an increased risk for tendon injuries<sup>[38]</sup>, which could affect an athlete's career and contribute to some of the other mental health topics previously discussed. With a pressure to perform, some athletes may turn to performance enhancing drugs; however, some may turn to substances to cope with the stress and pressure<sup>[35]</sup>. Athletes may use a variety of substances. An example is alcohol as one of the major substances abused in high-level athletes, with high rates of regular use among many athletes<sup>[39-41]</sup>. Athletes may be abusing alcohol in order to treat underlying psychiatric conditions, which could be potentially dangerous<sup>[39]</sup>. It is also well known that alcohol has many negative effects on the body, and is correlated with an increased rate of injuries in athletes<sup>[42]</sup>. Whether the substance misuse is for performance enhancement or for coping, there is an increased potential for injury and the development of additional medical conditions<sup>[37-39]</sup>. It is, therefore, important that recognition and interventions are undertaken to prevent these dangerous complications.

### **Applications & Suggestions**

The first step in mental health promotion is to destigmatize mental health for athletes<sup>[1]</sup>. Administrators, organizations, coaches, and athletes themselves, must all be aware of the many facets of pressure and stress that athletes face, which can contribute to mental health struggles<sup>[6]</sup>. Athletes should not be viewed as any less if they show that they are struggling mentally. Athletes are mentally and physically some of the strongest people in the world and athletic participation is one of the hardest things to partake in. It is okay for athletes to struggle at times, as they are human. Breaking down the stigma and expectation takes all of us. It is necessary to remove this stigma to optimize

athletes' mental health, which in turn will lead to injury prevention and optimal performance<sup>[3,19]</sup>. We must collectively work together within the sports community alongside mental health organizations, athletic programs, and teams to say that it is okay to have struggles as an athlete.

After breaking down the stigma, the next step is to increase resources for athletes to receive mental health help. There is currently a lack of mental health resources<sup>[7,11,13]</sup>, so organizations must increase the number and availability of mental health<sup>[12]</sup> resources that athletes can utilize. Mobile access resources or apps may help athletes to manage their mental health<sup>[43,44]</sup>, and these resources should be made widely available to athletes across all levels of play. Without these resources, mental health, nor the stigma, will improve in athletes. These resources are a large investment, but a necessary step to help prevent worsening mental conditions, injuries, and to help allow athletes to perform at their best.

Yet, this task is too great for one person or role in athletics. It is imperative that there is increased collaborative teamwork amongst athletes, coaches, organizations, and therapists regarding mental health, as it has been shown to be an effective model<sup>[45]</sup>. These discussions are important in breaking the stigma and screening for symptoms. At the collegiate level, athlete mental health screenings are lacking at many programs<sup>[46]</sup>. Athletes should be regularly screened for the prevention of mental health conditions. Open team based collaboration and mental health screenings could serve as effective tools to help athletes with their mental health. Knowing that mental health has a role in injuries and sports performance<sup>[3,19]</sup>, these tools could help with injury prevention and to improve performance.

### **DISCUSSION**

The mental health stigma still largely persists in sports. However, it is important to break down this stigma amongst athletes and other related parties. Athletes need to feel comfortable addressing mental health concerns for their optimal well-being, and to maximize injury prevention and performance<sup>[3,19]</sup>. Athletes are human and may face struggles and difficulties. They are not weak for this. In fact, athletes are some of the strongest people in the world, both mentally and physically. As a society, we can help by accepting this and decreasing extreme expectations placed on athletes. Further, if athletes are given a platform to address their own mental health concerns, they can help to decrease societal stigmas that still persist.

It is clear that a lack of mental health promotion and resources can have many negative effects on the body's hormone systems. Athletes can develop increased cortisol from chronic stress which can predispose them to injuries and worsening performance<sup>[17,19]</sup>. Athletes may develop coping mechanisms which can be dangerous and further drive these negative cortisol effects. Athletes without mental health promotion may also develop mental health conditions which can have serious effects on their lives. These mental health conditions have clearly been shown to have a negative impact on sports performance and injuries in athletes.

It is imperative that we break the stigma by increasing mental health resources for athletes. We must increase communication and team based approaches amongst organizations, and regularly screen athletes for mental health disorders. Improving the culture is necessary for athletes to optimize their mental health. The effects that poor mental health can have on the body can, in turn, lead to athletes getting injured and having poor performance, which can spiral into additional problems for athletes. It is clear that promoting athletes' mental health is necessary for optimal health, injury prevention, and their best sports performance.

### **Conflicts of Interest**

The authors of this research declare no conflicts of interest.

## Author Contributions

All authors contributed equally to this work.

## Ethical Approval

This study did not require IRB approval as it does not qualify as human subjects research.

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