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Commentary

When The Mind Moves on and the Body Does Not: An Account of Embodied Stress in Sport

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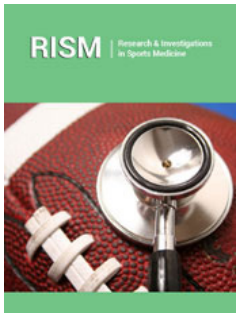

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Abstract

Nerves are an unavoidable part of sport, both frustrating and essential. This piece explores the interaction between psychological tension and physical performance through the lens of lived experience and empirical evidence. Drawing on sports psychology and physiology, it argues that cognitive strategies alone often fail to reset the body's physiological state after acute stress. The physiological imprint of competition (manifested in heart rate, breathing and muscle tone) often persists beyond conscious control. Research on breathing and autonomic regulation highlights the value of bottom-up techniques that restore balance when tension mounts. Combining personal reflections with evidence, this commentary suggests that success under pressure lies not in suppressing nerves, but in learning to work with them.

Keywords: Anxiety; Athletics; Elite Performance; Psychiatry; Sport; Exercise Psychology

Key Messages

A. What is already known on this topic: Psychological stress impairs athletic performance, but the physiological mechanisms and role of autonomic regulation remain underappreciated in sport.

B. What this study adds: This commentary integrates personal experience, evidence and elite athlete perspective to emphasize the link between breathing, autonomic control and mental resilience in competition.

C. How this study might affect research, practice or policy: Encouraging systematic incorporation of physiological regulation techniques-like controlled breathing could enhance performance and mental health support for athletes.

The Experience of Nerves

In sport, nerves are inevitable (hereafter also referred to as anxieties). They are one of the most frustrating but also most beautiful aspects of physical competition. Recently, more and more high-profile athletes have opened up about their personal struggles with anxieties and their pursuit of mental health care [1]. The concept of your greatest opponent being yourself (or, in other words, having to battle against yourself and your thoughts in the midst of a match) is likely not novel to the reader. This paper offers a reflective account of the embodied experience of competitive stress, using a single match to explore how physiological states persist beyond conscious control. This will be explored through the lens of a match I [ACM] recently played.

Imagine you're the type of person who puts undue pressure on yourself. You train at least in your own opinion harder than most everyone else who plays the game, yet your results rarely match the effort you've put in or the level you can reach when relaxed. Before your first match of a new season, anxiety sets in. You're seeded eighth, your opponent ninth and you know the difference between you is minimal. The person that comes to play well prepared but ready to play freely, will likely win. The days before are tense; even your mood feels heavy. You try to distract yourself, having learned the hard way that too much rumination can exhaust you before you even step on court. Then the match begins and suddenly, the fluidity you had in practice is gone. Your timing and movement tighten. Fortunately, the work you've put in

allows you to stay competitive, but you can feel the invisible weight of tension holding you back.

Shots you could hit with ease in practice now demand effort and second-guessing. You decide to play conservatively, relying on experience and discipline rather than risk. The match stays close. Later in the contest, your mind narrows to one focus: Breathing. Deep, steady breaths between points seem to release the body's grip, counteracting the tension from earlier mistakes. Breathing, in this sense, is less a technique than a form of attention to the body—a way of engaging, rather than overriding, its response. It's striking how the body holds onto those moments: the miss that triggered panic, the physical echo of stress. Even when you move on mentally, the body remembers. That lingering tension subtly affects shot quality, forming a feedback loop between mind and muscle. This suggests a dissociation between cognitive reset and physiological state: an often-overlooked feature of performance under pressure. This is a perspective consistent with broader work on embodiment and affect in medicine. At the next tournament, I tried to make breathing my anchor—a small but steadying source of control amid the chaos. It wasn't a cure, but it helped. The goal became less about eliminating nerves and more about managing their expression. Nerves are part of the game's electricity, but if left unchecked, they turn constrictive. Recognizing their dual nature was freeing to some degree.

The Science Behind Nerves and Performance

Sports psychology has long tried to quantify what athletes describe as being 'tight.' The Yerkes–Dodson law, first described in 1908, proposed that performance follows an inverted-U relationship with arousal:too little activation leads to sluggishness, while too much leads to breakdown in precision and decision-making [2]. A century later, this framework still holds up. A meta-analysis by Woodman and Hardy [3] reviewing over one hundred studies found that cognitive anxiety (the worry and rumination) impairs performance more than somatic symptoms like an increased heart rate. In essence, it's not the adrenaline that hurts performance, but how we interpret it. Seeing arousal as readiness rather than threat separates the confident from the constrained. An athlete who feels anxious on the day of competition can interpret that sensation as a necessary component of performance. Although uncomfortable, reframing anxiety as natural and functional may reduce its perceived intensity, helping bring arousal into the range that supports peak performance.

Recent evidence has also shown that physiological regulation can shift this interpretation. In a randomized trial of elite shooting athletes, Paul, Garg and Sandhu [4] found that six weeks of diaphragmatic breathing training reduced pre-competition anxiety and improved accuracy compared to controls. The training increased heart-rate variability (a marker of greater parasympathetic control) showing that targeted breathing directly alters the body's stress response. These findings highlight that nerves are not purely mental or physical, but the meeting point of both. These autonomic responses are embedded within the broader physiological stress response, including activation of neuroendocrine systems involving catecholamines and cortisol. Techniques like controlled breathing don't erase nerves; they reshape their impact. Despite this evidence, structured training in arousal-regulation skills is rarely embedded in youth or collegiate athletic development. When psychological skills coaching is available, it is often optional or peripheral to physical training rather than integrated into routine coaching practice. This gap suggests that systematic instruction in physiological and cognitive regulation techniques should be considered a core component of athletic preparation rather than an auxiliary service.

Learning from Elite Athletes

Novak Djokovic, the decorated tennis champion and arguably one of the greatest individual sport athletes of all time, embodies this principle. In a 2023 60 Minutes interview with journalist Jon Wertheim, he discussed the importance of conscious breathing under pressure [5]. When told that his mental strength seemed like a gift, he corrected the interviewer: 'It's not a gift; it's something that comes with work.' Djokovic explained that breathing is a core technique in moments of tension: 'I might appear locked in, but trust me, there's a storm inside.' His ability to acknowledge doubt and reset quickly illustrates how emotional awareness and physiological control can coexist. The goal is not to eliminate emotion, but to work through it efficiently.

Conclusion

Nerves are inescapable in competition. They produce adrenaline that sharpens focus but can also constrict performance if left unmanaged. Learning to work with rather than against them is central to growth. Physiological regulation—especially breathing—offers a bridge between the mind's chaos and the body's readiness. By viewing stress responses as part of training rather than flaws to suppress, performance under pressure depends not on eliminating anxiety, but on how one comes to inhabit it. And perhaps addressing this earlier in an athlete's development should be integral. I'm still learning that lesson myself [ACM], one breath at a time.

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