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Psychological Strain In Elite Sport: A Theoretical Analysis Of Adverse Impacts On Athlete Well-Being

Research Question: How can psychological theories explain the adverse impacts of participating in high-performance sports for elite athletes?

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Abstract

This paper examines how psychological theories explain the adverse mental health impacts of participating in high-performance sports, using Simone Biles, Michael Phelps, and Naomi Osaka as case studies. Despite differences in background, sport type, and gender, all three athletes experienced intense external pressures, such as media scrutiny and public expectations, alongside internal perfectionistic standards. Applying Self-Determination Theory, Cognitive Appraisal Theory, and the Stress-Injury Model, the analysis reveals how compromised autonomy, identity crises, and emotional dysregulation undermine well-being. The athletes' coping strategies, including therapy, mindfulness, and temporary withdrawal from competition, underscore the importance of relatedness, competence, and emotional safety. Findings highlight systemic shortcomings in governing bodies' and media's responses, which remain reactive rather than preventive. The paper concludes with recommendations for structural reforms, advocating for proactive mental health safeguards, revised media protocols, and cultural shifts to reduce stigma and support sustainable elite athletic performance.

Key Words: elite athletes, mental health, Self-Determination Theory, sports psychology, media pressure

Introduction

When discussing ‘elite sports’, we refer to athletes who compete at the highest possible level, whether that’s the Olympics, International tournaments such as the FIFA World Cup, or professional leagues like the EPL or NBA. In America, there are 1,083,308 high school footballers, and out of that, only 251 made it professionally (0.023%) (Shepherd et al., 2017). To reach the professional level, athletes have to train for years, and their performances are watched by millions worldwide. This shows that not everyone has it in them to become an elite athlete. Only those who are prepared to be confronted with the physiological, emotional, social, and psychological pressures of it will make it.

At this elite level, athletes particularly deal with heightened psychological pressures resulting from constant performance expectations, media scrutiny, high-intensity training, risk of injury, and a limited personal life. On top of all this, the athletes also face a fear of failure and pressure to live up to their own expectations. Therefore, these conditions may create an environment where athletes could develop mental health issues such as anxiety, burnout, depression, and perfectionism. For a long time, these psychological challenges were understudied and not taken seriously. Mental health in sport was ignored, and athletes were expected to ‘tough it out’ or ‘push through’ their challenges on their own. However, in recent years, things have started to change with athletes such as Simone Biles, Michael Phelps, and Naomi Osaka publicly sharing their experiences with mental health struggles, encouraging open conversations about this topic. In light of the aforementioned, the research question that this paper aims to answer is: **How can psychological theories explain the adverse impacts of participating in high-performance sports for elite athletes?**

The argument this paper makes is that taking part in elite sports often leads to serious psychological challenges, especially anxiety, burnout, and issues with identity, and that psychological theories such as the Stress-Injury Model, Self-Determination Theory, and Cognitive Appraisal Theory can be used to offer useful explanations for how these issues develop. These frameworks not only help make sense of what athletes go through but might even suggest how we can better support them in the future.

Literature Review

As mentioned in the introduction, elite athletes face a lot of psychological pressures from various sources, whether those be internal or external. Psychological theories, including the Cognitive Appraisal Theory, Stress-Injury Model, and Self-Determination Theory, provide useful frameworks for understanding how these pressures develop and impact athlete wellbeing.

Perfectionism in elite athletes is a trait characterised by setting unrealistically high standards; when not achieved, athletes engage in excessive self-criticism. In sport, there are two main types of perfectionism: Self-Oriented, where athletes create demanding expectations on themselves, and Socially-prescribed perfectionism, where the pressure stems from the expectations of coaches, sponsors, and fans (ARC Harvard, 2023). Whilst perfectionism can lead to an increase in motivation due to athletes wanting to continuously work and improve their skills, it can also hinder athletes. Fear of failure in perfectionist athletes stems from apprehension about committing errors or failing to satisfy personal and external factors, which can contribute to heightened anxiety and impaired performance outcomes (Myrvik, 2024). The Cognitive Appraisal Theory offers a useful framework for understanding why these stress responses vary between individuals. The theory suggests that it is not the performance environment itself but how the athlete perceives it that determines their psychological reaction. When athletes view a situation as a threat, they often feel self-doubt and increased anxiety about failing, leading to a decline in performance (Litwic-Kaminska, 2020). Seeing it as a challenge, however, can boost their confidence, sense of control, and motivation to thoroughly prepare for competition.

Burnout and overtraining syndrome are major issues for athletes with intense training schedules and limited recovery, often driven by chronic psychological stress, as explained by the Stress-Injury Model. As per an article by Wilczyńska et al. (2022), burnout in athletes can be described as having three main elements: emotional and physical exhaustion, a reduced sense of accomplishment, and sport devaluation. Emotional and physical exhaustion comes from the heavy demands of competitions and training, leaving athletes constantly tired and drained. A reduced sense of accomplishment happens when athletes feel ineffective, either because they are struggling to reach personal goals or performing below their own expectations. Sport devaluation occurs when athletes lose interest or connection with their sport, often feeling indifferent, detached, or even resentful towards competing and training. However, overtraining occurs when training volume and intensity exceed the body's capacity for optimal training, resulting in overtraining syndrome, a complex condition characterised by physiological and psychological symptoms that collectively impair athletic performance (Zatsiorsky et al., 2021). A paper by Baez et al. (2019) explains how psychological stress can increase an athlete's risk of injury and mental fatigue by disrupting focus and heightening muscle tension. Factors such as the athlete's personality, history of stressors, coping resources, and interventions available all influence how an athlete would respond to stress. Athletes with a greater ability to control are better able to manage anxiety and maintain performance through stronger coping strategies, whilst those with high anxiety, past injuries, or limited coping skills are more vulnerable to losing focus, muscle tension, and overtraining symptoms. Interventions such as relaxation techniques can help regulate these stress responses, protecting both the athlete's performance and well-being.

Another challenge many elite athletes may face is identity foreclosure, where their entire sense of self becomes tied to their sport, leaving them vulnerable when their basic psychological needs are not being met, as explained through the Self-Determination Theory. Identity foreclosure occurs when athletes focus solely on their athletic role, neglecting other aspects of their identity, which can lead to setbacks such as injury, poor performance, or retirement, ultimately feeling like a personal crisis (APA, 2023). The Self-Determination Theory suggests that for athletes to maintain mental well-being, they need to have three basic psychological needs: autonomy (a sense of control), competence (feeling capable), and relatedness (a feeling of support). When these needs aren't met, athletes may experience frustration, low motivation, anxiety, or depression. In the context of identity foreclosure, the narrowing of self-concept reduces opportunities to satisfy these needs – rigid training demands compromise autonomy, competence becomes fragile when performance declines, and relatedness can weaken if relationships are limited to the sporting environment. This creates a reinforcing cycle in which unmet needs deepen identity foreclosure, making recovery and adaptation even more difficult.

On top of the pressures from training and competition, many athletes also struggle with the constant spotlight of media coverage and social media, which can add another layer of stress and negatively impact their mental well-being. On the positive side, social media provides athletes with a base to build their personal brand, connect with fans, and secure sponsorships, giving them more control over their public image and income. However, these same opportunities often create additional pressure. Sponsors and teams may expect their athletes to maintain a highly polished online presence, even during periods of poor performance or injury, which can feel very overwhelming and fake. Public scrutiny and criticism can intensify stress and the pressure to perform, often leading to a performance decline as athletes struggle to stay focused on their sport (Robinson, 2024). Constant evaluation also undermines Self-Determination Theory's key need for autonomy, as athletes may feel their value depends highly on external approval rather than their intrinsic motivation. Studies have shown that constant exposure to social media criticism and sponsorship expectations can significantly increase levels of stress, anxiety, and burnout in athletes, especially when they are unable to disconnect from the spotlight (Faustin et al., 2022).

Athlete Case Studies

To better understand how the pressures of elite sports can affect athletes, this section looks at three well-known examples: Simone Biles, Michael Phelps, and Naomi Osaka. Each of them has spoken openly about the mental health struggles they faced during their careers, offering a real insight into how these pressures play out in practice and how psychological theories can help explain their experiences.

Simone Biles, widely regarded as one of the greatest gymnasts of all time, became a central figure in the conversation around athlete mental health during the 2021 Tokyo Olympics. By that point in her career, Biles

had earned 7 Olympic medals and 25 world championship medals, making her the most celebrated gymnast of all time (IOC, 2024). Biles entered the 2021 Olympics as the overwhelming favourite, carrying not only her expectations but also immense expectations from the public, media, and sponsors. During the 2021 Olympics, Biles made headlines after withdrawing from many events after experiencing the ‘twisties’ during the vault in the team final. The twisties describe a sudden mental block where a gymnast loses the normal sense of connection between their mind and body while performing in the air. This disconnection can cause intense disorientation, making it difficult to judge body position, control movements, and land safely (Schneid, 2024). In a press conference after the team final in 2020 Biles explained that the intense anxiety and mental stress that she faced had made it unsafe for her to compete by saying “I say put mental health first because if you don't, then you're not going to enjoy your sport and you're not going to succeed as much as you want to” (USA TODAY, 2025).

Biles’ decision can be understood through the Self-Determination Theory, which highlights the role of autonomy, competence, and relatedness in sustaining motivation and well-being. Through stepping back, Biles demonstrated autonomy, prioritising her health over the demands of others. Her experience also reflects the Cognitive Appraisal Theory, as she viewed the Olympic environment as a threat rather than a challenge, prompting her to adjust her response for her safety. Although she faced criticism, her choice drew widespread support and helped reshape the public narrative on mental health in elite sport. For Biles, therapy, regular rest days, and the unwavering support from her family serve as the vital coping mechanisms, allowing her to stay grounded, manage the pressures of elite sport, and maintain balance in both her life and career (KVC, 2021).

Michael Phelps is one of the best-known Olympians in history, and he has been open about his struggles with mental health during and after his swimming career. Over four Olympic games (2004-2016), Phelps won 28 Olympic medals (23 Gold, 3 Silver, and 2 Bronze), solidifying his reputation as one of the greatest athletes of all time (Britannica, 2018). However, behind all of this success, Phelps faced immense internal and external pressures. After nearly every Olympic Games, Phelps experienced cycles of anxiety and depression. This pattern became especially severe following the 2012 Olympics, despite his success in winning four gold and two silver medals. After the 2012 Olympics, Phelps openly talked about his experience with suicidal thoughts after he entered a period of deep depression.

In his documentary *The Weight of Gold*, Phelps opened up about the emotional toll of transitioning out of competition, describing how he felt lost without swimming. He questioned, “Who was I outside of the swimming pool?” This quote reflects the identity crisis many athletes experience when their entire sense of self is built around performance. In a separate interview, he added, “When I was competing, I considered myself a swimmer, not a human being. I was just some kid with a cap and goggles who was pretty good at going up and down the pool,” highlighting the extent to which his self-worth was tied to his performance.

These quotes reveal how the absence of autonomy and personal identity beyond the athlete role can lead to emotional exhaustion and disconnection. This aligns with the Self-Determination Theory's focus on psychological needs such as autonomy and relatedness. To help cope, Phelps turned to therapy, leaned on close relationships with his wife and children, and developed a daily exercise routine, which he considers essential (Landsverk, 2023). He has also founded the Michael Phelps Foundation, which promotes water safety and mental health education. Through these strategies, Phelps not only rebuilt his well-being but also sparked wider conversations about mental health in elite sport, encouraging all athletes to prioritise their psychological well-being.

Naomi Osaka is another example of an elite athlete who challenged expectations to protect mental health. Osaka is a four-time Grand Slam tennis champion and a former world number 1 (Gosner, 2024). She became a key figure in the athlete's mental health conversation in 2021 after she withdrew from the French Open to prioritise her mental health. Despite her rapid rise to fame with wins in the US Open (2018, 2020) and the Australian Open (2019, 2021) (Gosner, 2024), Osaka experienced ongoing struggles with depression and social anxiety, particularly when it came to media appearances. In May 2021, she announced that she would not be participating in post-match press conferences due to mental health concerns. After being publicly criticised by tournament organisers, Osaka (2021) withdrew from the tournament entirely, writing in a post on Instagram: "The truth is that I have suffered long bouts of depression since the US Open in 2018 and I have had a really hard time coping with that."

Osaka's struggles can be explained through the Cognitive-Appraisal Theory, as she perceived the media to be a threat to her mental stability, leading to anxiety, loss of focus, and emotional exhaustion. Her situation also connects to the Self-Determination Theory as the pressures to fulfil sponsorship obligations as well as media expectations reduced her autonomy and sense of intrinsic motivation, making the professional tennis environment psychologically unsustainable. Osaka coped by openly stepping away from competition and by keeping a consistent routine focused on self-care and mindfulness. As per an article by Barbour (2023), Osaka has shared that beginning her day with brief meditation, even for a few moments, helps her feel grounded and better prepared to manage her anxiety throughout the day. Whilst she acknowledges that unexpected challenges and anxious thoughts can't always be avoided, Osaka emphasised the importance of small daily habits such as getting enough sleep, nourishing her body, and creating space for calm moments as essential tools for managing her mental health and maintaining emotional balance. In stepping away from the sport and prioritising mental health, Osaka has taken control of her well-being and inspired a cultural shift in how athlete vulnerability is viewed and respected.

Conclusion

The case studies on Simone Biles, Michael Phelps, and Naomi Osaka highlight the strong psychological effects of competing in elite sport, regardless of the athlete's background, sport type, or gender. Despite their varying personal experiences, a similarity is shown through all the athletes, which is the overwhelming pressure to perform, often driven by media scrutiny, public expectations, and perfectionistic standards. These external demands, alongside internal pressures, can undermine an athlete's sense of identity and autonomy, which are both critical for psychological well-being.

The psychological theories (Self-Determination Theory, Cognitive Appraisal Theory, and Stress-Injury Model) applied help explain how the pressures of elite sports affect athletes. For example, all three athletes experienced a breakdown in intrinsic motivation and emotional regulation when their autonomy was compromised. Phelps questioned his identity beyond swimming, Osaka struggled with the mental toll of media obligations, and Biles experienced the 'twisties' due to intense anxiety and disconnection between her mind and body. All athletes had similar coping mechanisms, such as therapy, family support, mindfulness, or stepping away from their sport, demonstrating how psychological needs like relatedness, competence, and emotional safety are vital to performance and recovery.

The reactions from governing bodies and the public all varied. While all three athletes received eventual support, the initial responses, such as public criticism towards Osaka or being fined by the French Tennis Association, show that there is a lack of preparedness and empathy within the system. Sport organisers and the media still don't do enough to protect athletes' mental health, as current support is reactive to situations rather than proactive.

To move forward, actions need to be taken. Firstly, governing bodies must establish safety nets for athletes' mental health, such as regular mental health screenings, access to sport psychologists, and mandatory rest breaks. Secondly, media protocols should be revised to reduce harmful scrutiny, allowing athletes to engage with the press on their own terms. Cultural shifts should also take place, recognising vulnerability as strength and removing the stigma around mental health in elite athletes.

Ultimately, the struggles that Biles, Phelps, and Osaka all faced reveal that psychological strain in elite sport is not an individual weakness but a systemic issue, one that requires structural changes to ensure athletes can thrive in and beyond their sporting careers.

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