Challenging the Myths of High Performance in Esports

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Introduction

The world of esports is a rapidly growing domain that has caught the attention of academics across varying domains (i.e., business, sport psychology, law; Reitman et al., 2020 for a review). This chapter will follow the definition of esports proposed by Pedraza-Ramirez et al., (2020): "Esports is the casual or organised competitive activity of playing specific video games…These games are established by ranking systems and competitions and are regulated by official leagues" (p.6). Briefly, esports is the competitive play of certain videos and spans across a variety of genres including first person shooters (FPS), multiplayer online battle arenas (MOBAs), real-time strategy (RTS), fighting games, and sports games. Each genre has distinct aspects of gameplay and performance that make them unique. These distinctions are similar to those made in sports (i.e., invasion games, racquet sports, bat-and-ball games). Similarly, to sports, esports can be individual player based or team based.

The purpose of this chapter is to prevalent explore a few myths about esports coaching and performance that largely emerge from stereotypes placed on gaming and gamers. The myths include that esports is just playing video games, e'athletes are unhealthy, and e'athletes don't need a coach. Of course, there may be some truth in the myths that we present, rather than claiming falsehood towards these myths, we wish to delve deeper into their assumptions and

provide information to show there is more than meets the eye when it comes to the unique and complex world of esports performance.

Myth 1:

Esports is Just Playing Video Games

Much like having a kick about in the park isn't Premier League football, esports is not simply playing video games. In the definition of esports by Pedraza-Ramirez et al., (2020), we see that there's more to it, such as the need for some organisation (e.g., a competitive structure) around the game itself. This distinction is important to highlight in order to challenge some of the stereotypes that come along with the identity of a 'gamer'. The authors of this chapter have themselves encountered criticisms such as esports encouraging isolated sedentary behaviour, screen time and even 'basement dwelling'. The negative gamer stereotype shouldn't carry over to esports because esports is, by definition, an activity that requires interaction with at least one other human being (e.g., an opponent or teammates). Current approaches to esports training reflect this, emphasising the need for effective communication (Nagorsky & Wiemeyer, 2020), team cohesion (Swettenham & Whitehead, 2022) and health and wellbeing (Hong & Connelly, 2022) to support individual mastery and performance. This is not necessarily the case for casual gaming.

A useful principle to bear in mind when considering the nature of esports is that all esports games are video games but not all video games are esports games (2020). This delineation between gaming and esports can be seen in the competitive nature and intention of participation within games. Video games such as League of Legends (LoL), Counter Strike: Global Offensive (CS:GO), FIFA, Rocket League, and Fortnite are prime examples of prominent esports as they are highly competitive (playing against other players with the objective to win) and adhere to ranking systems which align with the definition posited above.

Other video games are typically played for leisure, and appeal to the hobbyist. Games such as Skyrim, Super Mario, and Grand Theft Auto are not commonly seen as esports games due to the lack of robust ranking systems and official competitions. In many esports, professional e'athletes are no longer competing from the comfort of their own homes and instead are presented in front of vast numbers of fans either live at the event or online.

To summarise this section, there is much more to being a professional e'athlete than simply playing a video game, much like competitive football is more than just kicking a ball in a park. There can be intense external and internal performance demands that affect performance and wellbeing. This section will continue to explore this myth by detailing the performance structures and demands within professional esports.

Performance Demands in Esports

To illustrate the difference in the individual's experience between gaming and esports, allow us to first extend from our football analogy. Imagine two individuals, one walking out onto a local park to go and take a few freekicks into an empty goal, the other walking out onto a freshly lined pitch, accompanied by teammates, a referee, and opponents, with a small group of spectators on the sidelines. Both individuals are going to play football, neither are paid to do so, the physical tasks are fairly similar, but their internal/psychological experiences are likely to be quite different. For the individual, this difference is in large part the essence of the difference between gaming and esports (at least at the amateur level before financial incentives come into play) and reflects a number of additional demands on the performer – playing in front of a crowd, executing what was rehearsed in training, the need to work with teammates, awareness of a consequential score. Efforts to *improve* performance in the face of these demands in esports commonly take the form of those that we see in sport, primarily training, coaching, and taking care of one's health and wellbeing, which we would argue are worthwhile pursuits.

Recognising that esports participation involves the aforementioned demands, researchers have turned their attention to examining these demands in more detail (e.g., Leis et al., 2022; Poulus et al., 2022; Smith et al., 2019). Research has posited that the most common stressors arise from performance expectations, For e'athletes, an inability to cope with the demands and stressors placed on them can result in serious negative consequences such as mental ill-health (e.g., Smith et al., 2020), injury (e.g., McGee & Ho, 2021), and early career retirement (e.g., Ward & Harmon, 2019).

To overcome these demands e'athletes need to develop technical (e.g., game specific skills and fine motor control), tactical (e.g., strategy and anticipation), psychological (e.g., motivation, attentional control, and adaptive coping) and social skills (e.g., communication and feedback reciprocity; Himmelstein et al., 2017; Nagorsky & Wiemeyer, 2020). Esports performance is driven by cognitive capability (Campbell et al., 2018), and recent research has identified that e'athletes may utilize mental strategies to regulate their emotions and sustain focus (Poulus et al., 2020). This helps e'athletes to experience high levels of confidence, longer durations of focus and even enter flow states, all of which can enhance performance outcomes.

The Esports Performance Environment

Performance environments are messy, and human interaction is key for a successful team. Despite the act of esports being, typically, an online interaction between two teams or individuals, the development, learning, and heart of esports lies in the interpersonal relationships held within the performance environment. In Nielsen & Hanghøj's (2019) research, they highlight that esports skills are people skills, with communication skills being vital both inside and outside of the game. This may include team cohesion, and the relationships built between e'athletes and staff members. To understand more about the demands placed on e'athletes, we can turn to their performance environment (see Figure 1) (e.g., Reid et al.,

2004). When looking at Figure 1, it is important to note that some esports organisations will not have MDTs to this level of depth and the staff members present will vary from organisation to organisation.

Figure 1

Examples of staff members within an esports multi-disciplinary team
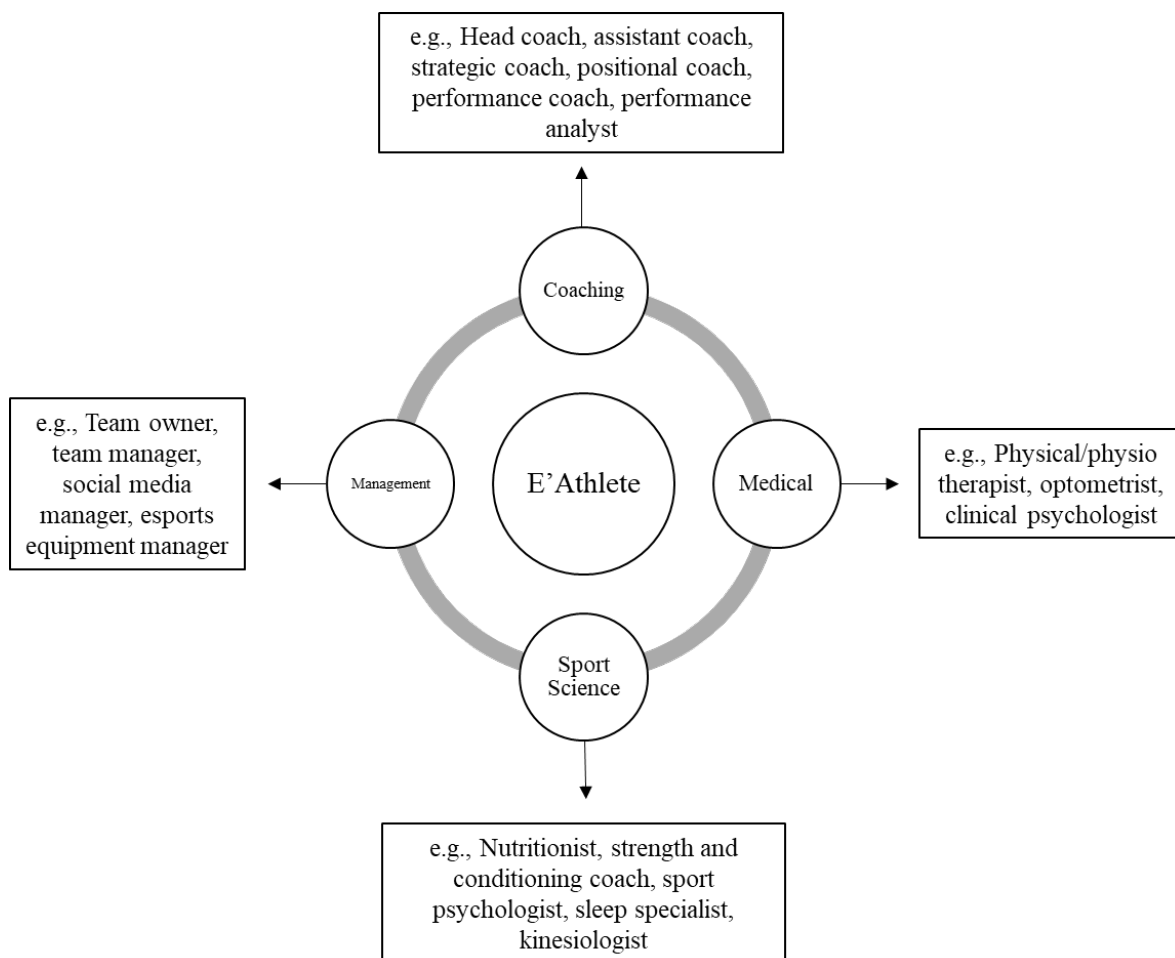
Despite some professionals entering esports multi-disciplinary teams, there is still a paucity of qualified practitioners working with teams and individuals provide advice on topics such as nutrition, sleep, and mental health. Esports teams often bring in a single staff member to cover multiple roles. For example, a "performance coach" may provide support surrounding

physical activity, strength and conditioning, nutrition, sport psychology, and coaching (Watson et al., 2021). From the authors' experiences, this individual will not be qualified in each of these areas. This is an ethical concern and is an area that esports can advance within in order to provide ethical, high-quality, context-specific support within the performance environment.

To zoom in on the role of the sport psychologist in esports, Ramaker and Pedraza-Ramirez (2023) state that "everyone is figuring it out along the way". There are no set guidelines or structures for sport psychologists (or other staff members) within esports. Instead, practice is influenced by scientific literature from sport and the growing research base within esports. It is vital that esports staff members engage in reflective practice, peer support, and co-create support within the team to provide high-quality, context-specific support. When transitioning from traditional sport to esports, the challenges faced by sport psychologists may include a lack of qualified professionals to provide feedback, learning the 'language' and culture of the esports title, and learning to work effectively online (Ramaker & Pedraza-Remirez, 2023).

To conclude, high performance in esports, much like traditional sport, is a challenging and complex world to navigate and requires teams bolstered by professionals rallying around teams of e'athletes to support performance and wellbeing demands. It requires not just game specific, professional knowledge, but also interpersonal and intrapersonal skills to allow the environment and people within it to thrive.

Myth 2:

E'Athletes are Unhealthy

A prevalent myth is the poor health of e'athletes in terms of nutrition, sleep, wellbeing, and physical activity (e.g., McNulty et al., 2023, Trotter et al., 2020). The stereotypical view of a gamer is of an individual that is sedentary in their room playing video games late into the night, drinking energy drinks, and not interacting socially. Though some of these stereotypes

may hold true in some cases and may carry across to some e'athletes, with the growing professionalism in the industry there is certainly more complexity to the argument. Notably, as we'll discuss below, research presents ambiguous results concerning the relationship between esports, physical activity and obesity that requires attention. We will discuss the current research into the health and wellbeing of e'athletes, specifically physical activity and mental health, to show that there is more to consider than the stereotypes placed upon e'athletes.

Physical Activity

Esports is a sedentary activity, and one account reports e'athletes to be sedentary for 4.2 hours per day during training (Kari & Karhulahti, 2016). One reason for this time spent sitting is due to "grind culture" within esports (Abbott et al., 2023), which encourages e'athletes to play for hours at a time as they attempt to climb game ranks. Increased time sitting can lead to health-related issues such as increased injury risk, neck and back dysfunction, shoulder pain and poor posture, and vascular health (Zwibel et al., 2019). Gaming more generally has been associated with higher levels of obesity and unhealthy lifestyle behaviours in adults (Turel et al., 2016). However, Marker et al (2019) concluded the link between gaming and obesity is small and does not support the assumption of a strong link between video gaming and body mass. Additionally, it's important to highlight that these associations were mostly observed among the adult population, with those who play esports titles mostly falling within the 24-27 years old age bracket (Heggem, 2016).

Trotter et al. (2020) found that e'athletes met the physical activity guidelines less than the general population, however, the top-ranked e'athletes in the sample were 10% more physically active compared to the rest of the esports sample. Additionally, Giakoni-Ramírez et al. (2022) found 92.7% of a sample of 260 male professional e'athletes to have moderate and high levels of physical activity. This may reflect the increasing high-performance

mindset amongst e'athletes within the highest leagues, who may recognise the importance of performance gains through a health and wellbeing lens (McNulty et al., 2023). Within Trotter et al. (2020), more e'athletes were classed as a normal weight in comparison to the general population, however, e'athletes were also more likely to fall within obesity classes 2 and 3. This research shows some of the nuances between e'athletes and gamers and that physical activity behaviors may change depending on their level of play. However, it is important to recognise that the research regarding physical activity and obesity levels within esports and video gaming is still ambiguous and requires further investigation and support through physical activity initiatives, such a breaking up periods of sitting with a six-minute walk (DiFrancisco-Donoghue et al., 2021).

Mental Health

Though limited, research shows the prevalence of mental ill health is high in e'athletes (e.g., Smith et al., 2020). Mental health can be defined as "a state of mental well-being that enables people to cope with the stresses of life, realize their abilities, learn well and work well, and contribute to their community." (WHO, 2022). As discussed earlier in the chapter, e'athletes face numerous performance demands and stressors, which can lead to mental-ill health if they feel they do not have the resources to cope with the stressors in their environment. Severe mental-ill health includes diagnosable disorders, such as depression, anxiety, and attention deficit disorder. Within the media, there are reports of e'athletes struggling with their mental health, including instances of burnout (Rawat, 2021), depression (Starkey, 2020), and suicide (Wright, 2023).

Despite the potential mental health risks that e'athletes face, there is a lack of clinical support for e'athletes. Referral systems to gain access to a clinical psychologist are still rare within esports; unlike in traditional sport environments where clinical psychologists are

becoming more commonplace. As such, there is a greater need to ensure that professionals working within MDTs in esports have the awareness and skills to recognise and refer e'to a clinical psychologist. For example, qualified sport psychologists will have a clinical contact to refer the e'athlete to in the case that the e'athlete's needs go beyond the sport psychologist's competence (i.e., clinical diagnosis and intervention).

Though a high prevalence of mental-ill health in esports has been reported, video games have been associated with cognitive, motivational, social and health benefits (Granic et al., 2014), and even the potential to improve cognitive skills in young footballers (Boonwang et al., 2022). Esports programmes have shown potential to develop communication, teamwork, and problem-solving skills (Rothwell & Shaffner, 2019) as well as social belonging and mental health (Tjønndal and Skauge, 2020), showing esports can be a vehicle in which positive social, emotional, and cognitive development can occur if implemented appropriately (Polman et al., 2018).

Though more research is required to explore the physical health and wellbeing of e'athletes, and despite the challenges faced in terms of sedentary behaviour, we can see that many individuals participating in esports are meeting national physical activity guidelines. However, promotion of physical activity is still needed and efforts to provide physical activity initiatives are welcomed (McNulty et al., 2023). Finally, we must be aware of the concerns regarding the prevalence of mental-ill health and consider how e'athletes can be better supported, whilst recognising that, when done correctly, esports has the potential to support many aspects of positive development.

Myth 3:

E'Athletes Don't Need a Coach!

"Why would anyone need someone to coach them in a video game, when the game itself is designed to deliver real-time and highly personalised instruction and feedback?". "What could a coach possibly do to improve a player who is far superior at the game than them?". These questions have been raised at times over recent years, sometimes in quite high-profile and public discussions on social media, sometimes levied directly at the authors of this chapter. For those that ask them, the belief is sometimes that coaches are not necessary in esports. For those outside of esports, it might also be hard to comprehend the idea of an esports coach, particularly if they are used to the highly physical (e.g., emphasis on physical movement skills) nature of coaching in sport. However, we contend that these questions stem from a misconception about coaching and an oversimplification of the demands of esports participation.

Although coaching is not a new concept, coaching in esports is a novel activity as the esports industry is still in its infancy compared to its sporting counterparts. One major difference at present pertains to the experience of those being coached. Many e'athletes will have begun interacting with esports for primarily social purposes (i.e., playing with friends) and their motivations may have later shifted to play in more competitive environments as they developed and refined their skills in their chosen esports title. As such, e'athletes typically encounter coach-led, structured training environments much later than their sport counterparts, who enter into such structured sport environments at a young age, often encouraged by parents or school teachers. In other words, e'athletes spend most of their early learning and formal skill development stages without consistent access to coaches. This may change in esports over the years, as esports coaches learn to differentiate coaching approaches for adults and younger people. For now, esports arguably require coaches to be more skilled 'interpersonally' and versatile 'pedagogically'.

The relative absence of coaching at the beginning of one's esports career may provide an explanation for the current myth, with e'athletes learning from the game in their early development and questioning their role or value later on. However, esports coaches are now a prominent feature of the esports landscape, commonplace in amateur, semi-professional and professional teams. Outside of these formal structures, e'athletes can hire coaches, much like hiring a tutor for a subject to help them develop their skills through feedback and review of performance. The following section will explore the role of the coach within esports, why it is necessary, and what effective esports coaching may look like. With a dearth of research on esports coaching, we will draw on sport coaching research alongside esports research as the field continues to learn more about the esports coach.

The Role of the Esports Coach

Esports coaching is largely unexplored academically and, for those active within the industry prior to the emergence of the role, coaches are often a point of contention. An early academic definition and description of the role of an esports coach highlights some similarities with the role of the coach in sport: "A game coach has a direct effect on the team's or player's actions in preparation for or while playing the game. These coaches analyse game play, tactics, and strategies; identify the team's, players', and opponents' strengths, weaknesses, and playing styles; and develop game plans and strategies for victory based on the team's or players' abilities" (Hedlund et al., 2020, p.160).

While coaching in sport is traditionally heavily focused on developing physical technical skills (e.g., technique to kick a ball, or serve in tennis), this aspect is less evident in esports as the game itself will develop many of these. As such, the coach's role in esports shifts to focus more on other aspects, such as strategy, interpersonal relationships, team coordination and organisation, and other holistic elements of performance (Watson et al., 2022). A study conducted by Sabtan et al. (2022) interviewed six participants, four head coaches, one analyst,

and one general manager working within LoL. Their findings reported that LoL coaches aim to achieve several key objectives, such as: Utilising and integrating players' strengths, developing effective communication and trust within the team, develop the players' weaknesses through training, scout and analyse opponents to co-create strategy with players, set frequent (i.e., weekly) goals for players, and support the players' motivation. However, one must be cognizant that, much like traditional sport coaching, not all esports coaches will share the same objectives and methods. For example, a coach working with a team of novice players ("rookies") may shift which objectives they focus on and the methods they use to achieve them in comparison to a coach working with a team of more established players.

Coaches focus on helping athletes grow within their games but are often said to help them grow not only as performers but as people too. This is no different in esports and may even be of greater importance to the esport coach given the relatively sedentary nature of gaming itself. Through the development of the coach-athlete relationship, as well as mentorship and role modelling, the e'athlete will pick up valuable intangible skills or 'soft' skills that can effectively transfer to their life outside of esports and after being an e'athlete. During their time as e'athletes, they will use and hopefully develop skills such as communication, teamwork and collaboration, receiving and giving feedback. All these skills can effectively translate into the personal, professional, and educational aspects of their lives to further support their development and success in the future.

Effectiveness of Esports Coaching

A debate that periodically occupies both sporting and esports worlds is whether coaches are more effective if they've previously held high-level playing experiences. Whilst it is common practice to hire coaches who have had extensive playing careers, it is important to understand how playing experiences can be useful and how it can be detrimental to those that make the athlete-coach transition. A former professional player turned coach will have accrued

social and cultural capital that allows them to be 'fast-tracked' into high performance contexts (Rynne, 2014). The assumption being that former e'athletes are familiar with the demands of high-performance and, having had first-hand experience of being coached, are thus able to 'swap seats in the boat' and replicate the success they experienced. Furthermore, coaches who are e'athletes will possess nuanced knowledge about the game which can inform their coaching approach. Interestingly, despite being a popular belief within esports, many coaches in esports were not propelled into their coaching careers immediately following a successful playing career at the highest level. In fact, the current career path in esports is strikingly varied, primarily characterised by a lack of structure and external support (Watson et al., 2022). Unlike in sport, where coaches typically need some form of qualification (i.e,. coaching badges) to assume their position, there is also a lack of standardisation of coaching practice within esports (Watson et al., 2022). In the absence of structured career paths, coach education and qualifications, it could be that previous playing is taken by some as a simple metric by which to judge a coach's potential.

Conversely, coaches who transition from being an e'athlete may struggle to develop talent as they may not have the necessary skills and frameworks to inform their coaching practice. Fitts & Posners' (1974) three phase model to skill acquisition states that learners advance through an early cognitive phase, an associative phase, and end at the autonomous phase for both motor and cognitive skills. As those transitioning from e'athlete to coach have spent countless hours refining their skills within their esport, leading to automatic or habitual execution (Magill, 2004), they can struggle to explain their decision-making process as it has become autonomous in nature. This 'expert induced amnesia' (Beilock & Carr, 2001, p 703) may be a reason why transitioning coaches struggle to explain their decision-making process and empathise with the needs of the learner thus making them less effective in their objective of developing and nurturing talent.

As highlighted above, one of the key objectives of an esports coach is to plan training sessions that align with the developmental needs of the individual or team. Abbott et al., (2022) found the perceived effectiveness of training was lacking and the mindset to grind (play a high volume of games in a short time) was perceived as an ineffective method for talent development, expertise and well-being (i.e., mental ill-health and burnout; DiFrancisco-Donoghue et al., 2019). More studies within esports and expertise have shown that practice quantity only explains a fraction of player expertise and performance outcomes (Pluss et al., 2021). A follow up study in the form of a 52-week longitudinal analysis analysing practice behaviour suggested that e'athletes could invest up to 16,000+ hours over a 10-year period (Pluss et al., 2022) aligning with the popular myth that to attain expertise one must practise for 10,000 hours.

Current research advocates for athletes to engage within deliberate and purposeful practice environments (Farrow et al., 2013). Ericsson (2021) sets out five criteria that could help practitioners (i.e., esports coaches) to evaluate their training session to integrate deliberateness within their context: (1) clear session intention, (2) performer(s) can complete the task individually, and will help them develop, (3) provision of immediate and actionable feedback is available, (4) performer(s) are afforded multiple attempts at the task, and (5) the coach can oversee the development to appropriately develop future tasks to supplement development. The concept of deliberate practice can help shift away from ineffective practices such as grinding games and can provide an established framework for coaches looking to develop their coaching practice and talent development (Bubna et al., 2023).

Further, within Abbott et al's. (2022) exploration of the perceptions of effective training practice in LoL, there was a mixed reception to the effectiveness of a coach. Some participants acknowledged that the coach provided feedback that would aid in their development as individuals and a team. However, some participants were sceptical about the effect a coach had

on their development saying "there's a lot of like posers…. And a lot of people who like, like to talk but don't really like to put in the effort." (p.9). This quote may reflect the lack of professionalization of esports coaches, without formal development of the key skills and knowledge that can help them perform within their roles. As coaching formalises it will be important to consider the key skills and knowledge that can help esports coaches to perform within their roles.

We can see that there may be some truth to the myth of not needing a coach, in the same way that a coach is not strictly necessary in sport. One argument being that the early stages of an esports player's development is often taught by the game itself rather than through the support of a coach. Of course, a coach may benefit the young developing player at this time, however, it is not commonplace, and the research is limited. When embarking upon the higher levels of esports, coaches can have a meaningful impact on aspects such as creating deliberate and effective training environments. There is some question as to the effectiveness of esports coaches, however, this is largely due to the lack of training pathway for prospective coaches to embark upon. In the future, clearer training pathways and research to support effective esports coaching are needed.

Conclusion

Within this chapter, we have presented a few myths about esports. We have highlighted the performance demands in esports, the challenges that e'athletes face, and the support systems in place to help them thrive. We have explored the research on the physical health of e'athletes, showing that the stereotypes of an 'unhealthy' gamer do not necessarily transfer to all esports participants. However, the wellbeing challenges that e'athletes can face are prominent and the field has space to grow in its understanding of how to identify, refer, and intervene with mental health cases. Finally, we picked apart the role of the esports coach

and recognised their role as a necessity within the field, despite the development in training and professionalisation is still to occur.

We recommend that practitioners within traditional sport settings explore the world of esports further by engaging with the esports community, tuning into official matches online, and considering how their skill set may be suited to esports high performance. Further, we recommend that researchers and coach developers consider the context of esports and the professionalisation of coaching practice in esports. We encourage those currently working in esports to check in with their own biases regarding esports performance, wellbeing, and coaching and to not work in silo. By sharing knowledge and experiences with other practitioners in the field we can create a greater collective understanding of the esports performance environment to better understand and support e'athletes, coaches, and teams. Of course, we still have much to learn about coaching and performance in esports as the research base steadily grows, but we hope this chapter has added some nuance to the understanding of high performance within esports, and demystified some of the assumptions and stereotypes that exist in order to promote the unique and exciting world of esports.

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