A new enigma: doping in E-sports

H.S. Arvinder-Singh, MBBS[1], MSc Health Research, Philip Rajan Devesahayam, M. Med (ORL-HNS)[1,2], Winson Ambaraj, M. Sports Medicine[3]

[1]Clinical Research Centre (CRC), Hospital Raja Permaisuri Bainun, Ipoh, Malaysia, [2]Department of ENT, Hospital Raja Permaisuri Bainun, Ipoh, Malaysia, [3]Department of Sports Medicine, Hospital Raja Permaisuri Bainun, Ipoh, Malaysia

ABSTRACT

Electronic sports (e-sports) is a growing entity that is estimated to be valued at USD $200 billion by the end of 2023. With the rapid rate of growth, it will come to a point that e-sports will need to be regulated including regulatory mechanisms of fair play, which includes sports doping. With the emergence of substances that provides unfair advantages in terms of concentration, staying awake and preventing anxiety including tremors, there is a need to regulate doping in e-sports. However, due to the nature of the sport, it might not be as straightforward to regulate as other sports.

Doping has always been a heated debate within the field of sports.[1-3] From the famous admission of Lance Armstrong, to the time of Olympic medals being stripped-off athletes like Rick DeMont for being tested positive for banned substances, the list goes on. Doping in sports is defined as consuming a substance that is either illegal for particular sports for offering the athlete an unfair advantage over their opponents or the substance might just be illegal by law altogether.[1] Though there might be an avenue for Therapeutic Use Exemptions (TUE) for certain medications that are classified as banned substances, there is a need to regulate it so that these strict regulations do not affect an athlete's health nor should it be an avenue for an athlete to consume substances and obtain an unfair advantage over their opponents.[3]

Electronic sports (e-sports) is a growing entity that is estimated to be valued at USD $200 billion in 2023.[4] Unlike conventional sports that have a time and place, e-sports are readily accessible to a person intending to engage in it, making it appealing to the larger masses of people especially the youths of today. With the rapid rate of growth in e-sports, e-sports will evolve with an official need to be regulated just as regular sports.[5,6] One of the regulatory mechanisms which every sport has undergone is fair play, which will include sports doping—sampling for substances and consequences for breaching the law.[3,5,7] Though it might be non-sensical to think that doping might have any effects on the outcome of e-sports—it is far from the truth.[3,6] With the emergence of substances that provides an unfair advantage for e-sports athletes in terms of concentration, staying awake and preventing anxiety including tremors—a regulatory need has become more apparent.[2,3,6,7]

The World Anti-Doping Association (WADA) have divided the classified substances that are banned by two categories: in-competition and out-of-competition detected substances.[6] This list is compiled and readily available for reference at: https://www.wada-ama.org/sites/default/files/2022-09/2023list_en_final_9_september_2022.pdf. However, certain banned substances are more relevant to certain sports than others. For example, beta-blockers, a drug that is used to reduce heart rates and tremors in cases of anxiety, are abused in sports that require the athlete to have a steady hand (i.e. archery).[8] Though the substance might not be life-threatening when consumed or against the law of the land, it might provide an unfair advantage to the athlete when it comes to competition thus causing it to be a banned substance.[5]

In terms of e-sports, it is known that players tend to need to have long hours of concentration, need to have proper eye and hand co-ordination, stable hand control and a state of calmness in order to perform better in an e-sports event.[2,3] That became another controversy in 2015 when an e-sport professional athlete openly admitted to his team utilising substances such as amphetamines (and/or their byproducts) for the purpose of improving their focus during events whilst other athletes have admitted in abusing marijuana for the purpose of staying awake with temporary paranoia to perform better.[2,3,9] There have also been reports of athletes consuming beta blockers to calm themselves before intense matches and to also mask the tremors from anxiety so that they perform better in e-sports.

Though this is currently under the prerogative of the e-sports organisers to screen athletes for doping, there is a strong need for international standardised regulations to govern all forms of doping for e-sport competitions.[5] In Malaysia, the popularity of e-sports has surged notably, bolstered by the country's enhanced performance at both regional and international gaming competitions. This was evidenced by the recent silver medal won by the national team in the Asian games. However, very little has been published or spoken about doping in e-sports here in Malaysia. It was comforting to know that in Malaysia, since 2005, there have been no e-sport athletes who were involved in substance abuse (https://www.adamas.gov.my/ms/2005). However, the National E-Sports Development Guidelines (NESDEG) vaguely referred to the Anti-Doping Association of Malaysia (ADAMAS) and WADA guidelines that still had a large grey area as far as e-sports doping is concerned. We would like to believe that screening for substances was conducted (though it was strongly encouraged by NESDEG) and no substance abuse was detected. However, with the growing stature of the game, especially with the money involved in sponsorships and game prizes, it might be a good time to start regulating

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Corresponding Author: H.S. Arvinder-Singh
Email: arvinder.crc@gmail.com

the e-sport scene—led by the Ministry of Youth and Sports here in Malaysia.[5] The authors are also concerned that areas that are commonly used for e-sport training like cybercafés (those with good equipment and fast internet access) are common areas where substance abuse occurs.[9] Thus, the need for a swift control and regulation doping amongst e-sport athletes is now even more important than before.

However, due to the nature of e-sports, it might not be as straightforward to regulate it as other sports. As some of these tournaments are competed online, it might be difficult to detect substance abuse, especially after the gaming competition.[3,5] To overcome this at an international stage, e-sporting events are being moved to fixed on-site venues. This was said to prevent unfair external advantages like online internet connectivity stability and speed. However, it also served as an opportunity for organisers to ensure competitions were played fairly by screening athletes for substance abuse—before, during and after events.5 We must also be wary that e-sports athletes are at higher risk of addiction, Attention Deficit Hyperactivity Disorders, visual impairment, neurological impairment and ergonomic disorders like carpal tunnel.[2,9] This might cause athletes to suffer from in-competition injuries requiring medications that may or may not be part of the banned substances. This might also be viewed as a window of opportunity for some athletes to consume banned substances as an excuse for a medical condition.[2,6] Will this also be the first sport to consider caffeine consumption as a potential substance abuse as athletes can be perceived to obtain an unfair advantage to stay alert for longer hours? [7,10] It is said that consumption of caffeine at 3 mg/kg of body weight might benefit sports performance.[10] Will that make it a substance providing an unfair advantage to e-sports athletes? E-sports may also heavily involve musculoskeletal, mental health disorders (i.e. "Gaming Disorders", behavioural disorders, attention deficit hyperactive disorders, gaming addiction, etc) and substance abuse that might be classified under the circumstances of general occupational health-related injuries/diseases.[2,3,5-7]

E-sports and doping are areas that sports and addiction medicine should focus on. Due to the grey areas and the complexity of the gaming mechanism, the regulatory bodies must engage with experts and stakeholders to ensure e-sports are free of potential doping.

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CONFLICT OF INTEREST

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