

An exploration of doping within recreational Welsh rugby

An ethical analysis of policy responses



by

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**SUBMITTED TO SWANSEA UNIVERSITY IN THE FULFILMENT OF THE
REQUIRMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY**

SWANSEA UNIVERSITY

2020


ABSTRACT

Doping is widely misperceived as a problem limited to elite athlete populations. Yet evidence for the occurrence of doping at recreational levels can be found from a variety of sources across a range of sports. Understanding this phenomenon is made problematic because of the difficulties in accessing these athletes. The ambiguity in motivations for doping at this level has led researchers and policy makers to consider whether the problem is more one of public health rather than simply performance-related cheating in sport. This thesis explores the motivations, knowledge, perceived harms, perceptions of anti-doping policy, and the drug use practices of recreational Welsh rugby players, where prevalence is disproportionately high in the UK. Semi structured interviews with recreational Welsh rugby players (n=13) and gym users (n=9) from the South and West Wales region were conducted. Four key themes emerged: (i) the use of doping substances for aesthetic reasons; (ii) a concern for body image that can trigger doping; (iii) a range of problematic risk-taking behaviours; and (iv) lack of concern for anti-doping policy and practice. Given the harms associated with doping, attention was paid to the problem of identifying whether the primary policy response should be driven by health or sport organisations. An alternative policy response within harm reduction is here considered, adapting a contentious framework from the ethics of self-harm. Three broad alternative policy proposals are critically presented in relation to doping in recreational sport: (1) to prevent it; (2) to allow it; and (3) to supervise it. Each model is rejected. Due to the seriousness of the harms associated with doping and the public health threat, it is argued that public health bodies must provide specialist harm reduction for recreational athletes and gym users within Wales, to better protect the health of recreational athletes and the general public.

DECLARATIONS

I hereby declare that:

1. The work has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature for any degree.

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2. This thesis is the result of my own investigations, except where otherwise stated and that other sources are acknowledged by footnotes giving explicit references and that a bibliography is appended.

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3. I consent for the thesis, if accepted to be made available online in the University's Open Access Repository and for inter-library loan, and for the title and summary to be made available to outside organisations.

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4. The University's ethical procedures have been followed and, where appropriate, ethical approval has been granted.

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ACKNOWLEDGEMENTS

This thesis would not have been possible without a number of key and important people. In this short acknowledgement section, I identify these individuals and pay thanks to their individual and collective contributions.

First, I owe so much to Dr Andrew Bloodworth - who I now consider not only a mentor, but a dear friend. Andrew has provided me with immeasurable support, guidance and kept me focused throughout the process (even if we were to spend a number of hours discussing football). His compassion, thoughtfulness and personhood has had an undeniable effect on me, my thinking and my work. I could not have asked for a better mentor and I feel very privileged to have been Andrew's first Ph.D. student. To Andrew, I owe so much, and I cannot thank you enough. I also must thank Andrew's wife, Emma, who has also provided support - thank you. Secondly, I owe great thanks to Prof Mike McNamee. Mike has given me a number of amazing opportunities throughout my academic journey and fundamentally, without his influence, time and work, this project would not have been possible. I feel deeply privileged to have been guided by such an influential figure within the field of sport ethics and philosophy and once again, I cannot thank you enough. I also wish to thank Prof Liam Kilduff, who first accepted me onto the Sport and Exercise Science undergraduate degree at Swansea University - for without his acceptance into Swansea University, I would have not been able to pursue this 7-year academic journey - thank you. I also owe thanks to my examiners, Prof Jim McVeigh and Dr Andy Harvey, for an insightful discussion and thorough examination process. To my family - who have supported me throughout - Mum and Dad, thank you. I hope to make you proud. To both my sister and brother, also, thank you - you have given me great motivation, support and encouragement. I also owe thanks to my two dogs, Rupert and Ted. For without their love and unwavering happiness, I would not have been able to complete this academic process.

ACRONYMS

ADP	Anti-Doping Policy
ADRV	Anti-Doping Rule Violation
AAS	Androgenic Anabolic Steroids
BDD	Body Dysmorphic Disorder
CAS	Court of Arbitration for Sport
DFSNZ	Drug Free Sport New Zealand
EPO	Erythropoietin
GHB	Gamma-hydroxybutyrate
HGH	Human Growth Hormone
IOC	International Olympic Committee
IF	International Federation
IAAF	International Association of Athletics Federation
IPED	Image and Performance Enhancing Drug
MEO	Major Event Organiser
NGB	National Governing Body
NADO	National Anti-Doping Organisation
NGB	National Governing Body
NSP	Needle Syringe Programme
NICE	National Institute for Health care and Excellence
PED	Performance Enhancing Drug
PL	Prohibited List
USADA	United States Anti-Doping Agency
UKAD	United Kingdom Anti-Doping
UCI	Union Cycliste Internationale
WADA	World Anti-Doping Agency
WRU	Welsh Rugby Union
WR	World Rugby
WHO	World Health Organisation

INTRODUCTION

The World Anti-Doping Agency (WADA) is the primary global institution responsible for organising, implementing and monitoring anti-doping rules in sport. Anti-doping rules are outlined principally within the WADA Code and are aimed at promoting doping-free sport, sporting integrity and protecting the health of athletes. The WADA was established to combat doping within elite sport, however, in more recent times, the WADA's remit has grown to include recreational athletes (WADA, 2020). Although very significant efforts have been made within anti-doping and by the WADA since the introduction of the first WADA Code in 2004, doping continues to persist in sport. The continued use of doping substances is problematic not just for the notion of doping-free sport, but also in relation to the health of athletes. The potential significance of these health concerns goes beyond individual users, and doping is now considered a public health concern (McVeigh & Begley, 2017; UKAD, 2020). Due to this concern, questions have been directed at whether it is the responsibility of sporting organisations or public health bodies that should ensure athlete health. In this thesis, I investigate doping within recreational Welsh Rugby Union, with particular attention to one specific area of concern. I explore doping practices of recreational Welsh rugby players, their motivations to use doping substances, perceived harm, knowledge and perceptions of anti-doping policy. Four key themes emerged from the interview data: (i) the use of doping substances for aesthetic reasons; (ii) participants expressed a concern for body image that triggered doping substance use; (iii) there were a range of problematic risk-taking behaviours amongst recreational athletes; and (iv) there was a lack of concern for anti-doping policy and practice. In response to these concerns, an alternative policy is proposed. The policy response is adapted from another risk-taking behaviour; self-harm: (1) to prevent it; (2) to allow it; and (3) to supervise it. This introductory chapter sets out a brief background to the phenomenon, the limitations of this work, and a structural overview of this thesis and the arguments that are presented and ethically examined in subsequent chapters.

1.1 Background

The use of doping substances within sport has long been a concern for elite sport, with significant monetary rewards, contracts, sponsorship deals and funding on offer to the most successful athletes. Driven by these rewards, elite athletes sometimes find themselves pushing moral boundaries and engaging in doping practices. As a response to these concerns, anti-doping rules were established to combat doping and, over the years, very significant international efforts have been made and implemented across the sporting world (Bloodworth & McNamee, 2010; Lenntillon-Kaestner et al., 2010).

The most significant move can be found within the establishment of the WADA in 1999, the single organisation responsible to harmonise, monitor and implement anti-doping rules around the globe (WADA, 2020). The WADA produces the WADA Code, its principal policy tool, that outlines the rules and polices that must be adopted by National Anti-Doping Organisations (NADO). The Code specifies the requirements of NADOs and outlines what is expected from International Sporting Federations (IFs), National Governing Bodies (NGBs) and Major Event Organisers (MEOs). Historically, anti-doping was established for elite sport, and is defended on grounds of fairness, illicit enhancement and health. In more recent times, however, the WADA's remit has been expanded to include recreational athletes (WADA, 2020).

Although recreational athletes sometimes use doping substances for performance enhancement, this is neither the only nor even the dominant motivation in every case. The potential motivations to use doping substances within recreational sport are considerably more diverse than within elite sport, and these motivations reach far beyond the sporting arena. In recent times, there has been a growing emphasis on body image, and this has led to a number of individuals to use doping substances to achieve body image ideals. A number of these individuals might participate within recreational sport, have no intention to improve athletic performance, but use doping substances to look good. Not only is this a concern for anti-doping, but it also a matter for public health given the larger size of recreational athlete populations (Christiansen, Bloodworth, Ham & Cox, 2020; UKAD, 2020).

With the use of doping substances continuing to persist within elite and recreational sport, there has been growing emphasis placed on the notion of health within the WADA Code (WADA, 2020). Doping substances have been proven to be harmful to health and it is concerning that the use of these substances has now found their way into recreational sport and the general population (Evans-Brown & McVeigh, 2009; Llewellyn, 2010; Pope, Wood, Rogol, Nyberg, Bowers, Bhasin, 2014; Goldman, Pope, Bhasin, 2019). Due to the significance of these health concerns, questions have been directed at whether it is the responsibility of sporting organisations or public health bodies to protect the health of athletes.

Within the United Kingdom (UK), it is notable that the use of many doping substances included on the WADAs Prohibited List (PL) is not illegal. For example, the use of anabolic steroids (AAS), the most commonly used image and performance enhancing drug (IPED), is not criminalised (Evans, 2004, Evans-Brown et al., 2009; Kanayama et al., 2010). It is, however, illegal to manufacture, supply/possess/import/export steroids, with the intent to supply, without the license to do so (Public Health Wales, 2020). Thus, outside of sport, these substances can be freely used and due to the adverse health risks associated with the use of doping substances and AAS, it is problematic that individuals continue to use these substances.

When we consider one potential barrier to use doping substances, ADP appears to play an important role. ADP helps to shape perceptions and beliefs regarding the use and permissibility of doping substances and acts towards health promotion and protection. By acting towards the prevention of doping substances, ADP appears to be an important intervention both within sport and within the general public. Nonetheless, some have argued that ADP has contributed to mistrust, shame and stigma within steroid using communities. And although ADP acts towards the prevention of doping substances, it has done so in a manner which has inhibited harm reduction efforts (Evans-Brown et al., 2009). Some users of doping substances are less willing to engage with medical professionals and this potentially increases the likelihood of harm. Thus, although anti-doping outlines that it intends to protect and promote health, it perhaps inhibits harm reduction efforts somewhat. This is concerning when we consider the potential harms of doping substances and the

extent of their use within sport and by the general public (Bloodworth & McNamee, 2010; Boardley, Grix & Harkin, 2015; de Hon, Kuipers & van Bottenburg, 2015; Ulrich et al., 2018).

One identified area of concern within the UK, falls within recreational sport, within Wales. It is noted that recreational Welsh rugby players receive a disproportional number of anti-doping sanctions than their UK counterparts, and within this thesis, I explore doping concerns within recreational Welsh rugby to better understand the associated choices and behaviours (Whitaker & Backhouse, 2017; UKAD, 2020). In response to the concerns of doping within recreational Welsh rugby, and the significance of the health concerns associated with doping practices, I have adapted a framework for another risk-taking behaviour; self-harm (Edwards & Hewitt, 2011). Three general policy responses emerge from the self-harm literature in medical ethics: (1) to prevent it; (2) to allow it; and (3) to supervise it. This framework, thus, provides the driving consideration behind this thesis, to ethically examine policy responses to combat the concerns of doping within recreational sport and better protect the health of recreational athletes. I move to reject each of these proposals and offer a novel argument which sees public health bodies provide specialist harm reduction for recreational athletes and gym users within Wales. I argue that public health bodies ought to lead specialist harm reduction units that would essentially shadow ADP and better protect the health of athletes that will continue to flout anti-doping rules and use doping substances. Doping is not just a problem for sport, but it is also a growing concern for public health (McVeigh & Begley, 2017), and without a collective effort to tackle this concern, I argue that people will continue to engage with these risk-taking practices and continue to risk their health.

1.2 Limitations

First, it is important to point out the definitional uncertainties evident between elite and recreational athletes. Up until the recently accepted WADA 2021 Code, there was no clear definition for recreational athletes within the WADA Code (WADA, 2009; WADA, 2015), and this led to inconsistent applications of the WADA Code between different NADOs. In a recently published report on doping in recreational sport, the report concluded that different NADOs had different jurisdiction in

different countries (Christiansen, Bloodworth, Ham & Cox, 2020). The jurisdiction of NADOs sometimes related to definitional issues, with some NADOs including gymnasiums users within this definition, whilst others only included athletes participating within competitive organised sport. These definitional uncertainties fuel confusion and the WADA has recently offered some clarity by providing definitions of elite and recreational athletes within the 2021 Code (WADA, 2020). Nevertheless, it is clear that concerns and confusion still remain.

Throughout this thesis, I refer to recreational athletes and although I offer some remarks on the conceptual boundary between elite and recreational athletes, it is possible that an athlete might move between teams and leagues over the course of a season thus shifting his nominal identity. Moving between teams and leagues affects the application of this definition and this somewhat conflates this distinction and is an inherent limitation to the work of this study. It was notable that two participants stated that they played for semi-professional clubs, however, these players were on dual contracts between two different clubs. Dual contracts allow players to gain experience and playing time and it is possible that a player might move between clubs throughout the course of a season. Dual contracts also allow players to move up or down leagues and although they might be essential to a player's development, they enable players to fall into a grey area between the statuses of an elite or recreational athlete. Again, the ambiguity is an inherent limitation to any investigation of the phenomenon. Although only two participants fell within this category, it is important to note for wider consideration and context.

The second limitation is the reference I make to the use of doping substances, by which is meant the substances and methods included of the WADAs PL (WADA, 2020). The PL is updated annually, on January 1, and it is possible that whilst a substance might be included on the PL one year, it might not be included on the PL the next year. The PL undergoes a review process and is subject to change year on year. An example of one substance that was included on the PL in 2004 and was later removed is caffeine. Although caffeine can now be found on the WADAs monitoring programme, a programme established to detect patterns of substance misuse or abuse (WADA, 2020), this supports the point that the term *doping substance*, is a limitation of this thesis. From the data collection, the most commonly used doping substances

were AAS, and this falls in line with literature stating the AAS are the most commonly used image and performance enhancing drug (Evans, 2004, Evans-Brown and McVeigh, 2009; Kanayama et al., 2010), and this also falls in line with the UKADs detection of doping agents which is most commonly anabolic agents (UKAD, 2017; UKAD, 2018; UKAD, 2019). Although AAS are highly unlikely to be removed from the WADAs PL, the PL is subject to change over time and this should also be considered as a limitation of this thesis.

Thirdly, it is also notable that this investigation is limited in terms of generalisability, and thus, the interview responses only provide a snapshot and cannot be considered more widely representative. This is a limitation of qualitative research in general. Nevertheless, the purpose of conducting interviews was to gain a better understanding of the doping practices within recreational sport so that I could make more informed arguments. I wanted to understand better the reasons why individuals had used doping substances and examine the motivations behind these risk-taking practices. I wanted to get to grips with these different experiences and better understand what doping meant to these individuals. Without conducting interviews, I would have lacked in the necessary detail required to make informed and thorough policy recommendations. Although this research provides information of only a small section of the population, it provides a hitherto uncharted depth of detail required to understand specific recreational athlete behaviours. I am also aware that there are multiple and conflicting perceptions about doping and each participant's response is shaped by a number of influential psychological and social factors. I am also aware of my own potential bias, through data collection and analysis, in the reporting of participants responses as they were described to me.

Finally, the investigation was conducted with male only participants and although I made several attempts to include females, there was a general reluctance to participate within the investigation. A small number of females spoke to me off record, however, these individuals did not wish to participate within the investigation any further. Although these women were not rugby players, they were using doping substances for the purpose of bodybuilding or aesthetic reasons. These individuals expressed some concern that the use of doping substances was an increasing problem amongst female populations. Due to the fact that participants included within this

investigation were male only, this can also be considered a limitation of this investigation.

Having outlined the limitations associated to the work within this thesis, I move on to present a summary overview of the work and arguments to follow within the confines of this thesis.

1.3 Summary Overview

In chapter 2 I detail key doping cases, outline some of the responses of the anti-doping movement over the years and articulate some key definitional issues concerning elite and recreational sport. I also present doping prevalence statistics within sport, examine some of the motivations to use doping substances and also highlight some of the associated harms with doping substances. Later, in chapter 2, I point towards the main focus of this thesis and highlight the population of recreational Welsh Rugby Union. Here, I present and examine the available evidence, pointing towards the key concerns which will be examined later within the thesis.

In chapter 3, I present the methodology guiding this thesis and describe and justify the methods adopted. Here, I outline the population of focus, the specific details of that population and the methodology used within the qualitative method of data collection and analysis. Within chapter 3, I also provide a defense for the qualitative method of data collection and analysis.

In chapter 4, I present the key themes within the interviews. Here, I set out key themes and the themes that I will take forward and examine in greater depth within this thesis. I identify four key themes: (i) that doping substances were primarily used for aesthetic purposes; (ii) a concern for body image that triggered doping substance use; (iii) an array of risk-taking practices; and (iv) a clear disregard for ADP and practice. Towards the end of chapter 4, I argue that it is morally problematic to ignore these risk-taking practices and that the current anti-doping approach struggles to prevent doping and protect athlete health. As a response to these concerns, a proposal is made to better protect health. The proposal is adapted from another risk-

taking practice; self-harm (1) to prevent it; (2) to allow it; and (3) to supervise it (Edwards et al., 2011).

In chapter 5, I present and critically examine the first of three-policy responses. The first policy response that I consider, looks at strengthening current anti-doping policy, to prevent doping. Within chapter 5, I propose increasing the number of doping control tests, increasing the length of anti-doping sanctions and the criminalisation of doping within recreational sport. The premise, by increasing the likelihood of receiving an anti-doping sanction or the weight of that sanction, I question whether this could prevent and deter doping, better ensure doping-free sport and better protect the health of athletes. Although I concede that these measures could better protect the notion of doping-free sport and the health of athletes, I argue that these measures are morally problematic: recreational athletes would be exposed to unjustifiable risks and these proposals would be disproportional to the act of doping within recreational sport. Moreover, athletes included within the current investigation reported that they were likely to continue to use doping substances irrespective of anti-doping sanctions and despite the ongoing risk to their own health. Accordingly, the proposal to strengthen ADP is rejected.

In chapter 6, I consider the second response, to allow doping and do away with ADP altogether. Whilst this response would do away with concerns around ADP adherence, ADP can be seen to protect athlete health. Whilst not perfect, ADP has the potential to guide and shape moral norms and beliefs. If we were to abandon ADP completely, we might reasonably predict an increase in the number of people using doping substances, and greater harms to those engaging with these risk-taking practices. It is also reasonable to suppose that there would be additional use of doping substances from individuals who had previously not considered doping. If ADP was to be abandoned, the permissibility of doping substances would be more likely and this would be a concern not just within sport, but also within the general public. As with the first response, I argue that response two is morally problematic and it is also rejected upon the basis that the health risks associated with doping substances would remain and would likely continue to pose a threat to athletes and public health.

In chapter 7, I consider policy response three, the possibility of supervising doping within recreational sport. Whilst the supervision of doping might reduce some of the harms associated with doping and improve dialogue between medical professionals and doping substance users, I question whether the health benefits from such supervision can be guaranteed. Moreover, medically supervising doping would not do away with the concerns that athletes will continue to push above and beyond those limits under supervision. Thus, the risks to health are likely to remain. What is more, doping under medical supervision would likely also encourage new users to engage with these risk-taking practices. I argue that there is a moral difference between protecting the health of users that have already committed to the use of doping substances and protecting the health of new users who feel the need to use doping substances just to keep up with others. Due to these concerns and the risks to health, like the previous two policy responses, proposal 3 is also rejected.

Chapter 8 comprises a proposal to bring ADOs and public health bodies together to tackle the problem of doping in recreational sport. Here, I recommended that specialist harm reduction units are established to better protect the health of recreational athletes and gym users within Wales. I identify a number of public health concerns associated with doping substances use and argue that these public health concerns provide strong justification for public health bodies to intervene and better protect the health of recreational athletes and the general public. Although I also defend ADP, stating that it aims to protect a fundamental good and aims to dissuade doping substance use not just within sport but also within society, I argue that public health bodies are better placed to provide information and advice to better protect athlete health. Without public health focused intervention, I argue that athletes will continue to engage with risk-taking practices and continue to present a health risk not just to themselves and fellow athletes, but also to the general public. In response to these concerns, I argue that public health bodies ought to provide specialist harm reduction alongside ADP, to protect recreational athletes and gym users who will likely continue to engage in risk-taking practices. Whilst not a problem-free scenario, since individuals might continue to use doping substances, I find it morally problematic to ignore these health concerns. The proposal responds to these concerns and provides a novel framework to how ADOs and public health

bodies might find some common ground and better ensure individual and public health.

Chapter 9 offers some final remarks, including the importance of health promotion and protection when the health risks associated with doping substances are considered, both for athletes and within the general public. I also argue the importance of specificity within harm reduction and argue that further research is required to make robust harm reduction recommendations. I also offer a summary of the work undertaken throughout this thesis.

DOPING AND ANTI-DOPING

2.1 Doping in Sport

The use of performance enhancing drugs has been around for many years and as Verroken & Mottram (1996) points out, the ingestion of substances to enhance performance is probably as old as sport itself. Müller (2010) writes, ‘according to reports of Philostratos and Galen, various remedies were used to enhance athletic performance as early as the end of the third century BC. Chinese physicians recommended the use of Ma Huang (an extract from the plant Ephedra) to increase performance over 5,000 years ago, when this drug was usually used to suppress coughing and to stimulate circulation’. Although this account has been selected from the history books of doping in sport, it provides some timescale for the use of performance enhancing substances in sport. Further accounts come from Latin America, whereby individuals were said to have ingested the strong stimulant cocaine (coco leaves) in parallel to caffeine (coffee, guarana, cola nuts and mate tea), to aid running performance and endurance (Müller, 2010).

In more recent times, The East German State Sponsored Doping Programme is worth noting. The programme began in 1974 and was developed to ensure Olympic gold medals and international glory for East Germany (Ungerleider, 2001). The programme was named, ‘State Plan Theme 14.25 of the Ministry of Science and Technology’, and ploughed resources into the development of anabolic steroids. The programme was regarded as a state secret and all those included within the state plan had to swear an oath of secrecy. The programme provided athletes with performance enhancing drugs both known and unknowingly. These drugs were untested, and athletes were used as guinea pigs, becoming part of large-scale scientific experiments which developed a wide range of performance enhancing drugs. The doping programme was first exposed when sprinter, Renate Neufeld, defected to the Federal Republic of Germany and exposed the states’ secrets. Cracks also started to appear when female East German swimmers were said to have excess body hair and deeper voices (Dennis, 2015). The

German state sponsored programme outlines a number of ethical concerns, with coercion and harm to an athlete's health at the forefront of these concerns.

Moving forward in time and perhaps the first major doping scandal of the modern era, was the case of Ben Johnson. Johnson, the Canadian 100m sprint gold medalist from the 1988 Seoul Olympic Games, ran a time of 9.79 seconds in the 100m. Notably, however, Johnson's world record breaking time and gold medal was stripped from him after it was revealed he failed a drug test (Montague, 2012). Johnson's positive test for an anabolic steroid proved to be a turning-point in Olympic sport and helped shape modern definitions, allowed for critical assessments of the Spirit of Sport and enabled thorough examinations of the list of prohibited substances within sport (Beamish, 2015). Although anti-doping efforts were increased after Johnson's fall from glory, doping scandals continue to rock sport to its very core.

Probably one of the worlds' most infamous doping scandals occurred after Lance Armstrong, the 7 time Tour de France winner, admitted doping through all 7 of his tour victories (UCI, 2012). Armstrong and his entourage masterminded a complex web of medical and scientific advancements to surpass any previous doping case before it. Armstrong's dominance in the world of cycling meant he became internationally recognizable and was once regarded as a national hero and a cycling legend (Hardie, 2015). In January 2013, after growing pressure from the UCI, the USADA, former team-mates and the media, Armstrong publicly admitted to doping through all seven of his Tour de France victories. Armstrong used a broad range of drugs, including, Erythropoietin (EPO), Testosterone, Cortisone, Human Growth Hormone (HGH) and blood transfusions (Armstrong, 2013).

Whilst the Armstrong doping case shocked the sporting world, the most recent doping scandal is probably the most shocking. In 2016, allegations were made by German broadcaster ARD, which accused Russia to be running a State Sponsored doping programme. The documentary revealed that Russia doped many of its top athletes during the 2014 Sochi Olympic Games and had been doing so for years previous (Seppelt, 2014). Following the allegations made by the German broadcaster ARD, the WADA decided to conduct its own Independent Investigation. The independent

Investigation was led by Dr. Richard McLaren, and exposed a number of shocking findings (WADA, 2016). From the first Report, the findings highlighted that the State Sponsored programme operated to protect doped Russian athlete's and enabled them to compete with prohibited substances present within their bodies. The Russian testing laboratories swapped test samples of doped Russian athletes and was overseen by the Russian Ministry of Sport (McLaren, 2016). The second of two reports revealed further shocking allegations. The findings from the II Report claimed that both Summer and Winter Olympic Games athletes benefitted from the State Sponsored programme, with over 1,000 athletes directly benefiting from the doping programme. The report outlined that a doping system was in place for Russian athletes as far back as the London 2012 Olympic Games, and also confirmed the findings made within the I Report (McLaren, 2016). Although these findings present a snapshot into the Russian State Sponsored doping programme, the full extent of Russia's involvement in doping is largely unknown, however, some experts believe that doping practices were taking place well before the dates outlined within these reports. Nonetheless, some have questioned the evidence base on which these allegations are made (Girginov & Parry, 2019), and a number of anti-doping sanctions have since been overturned and rejected by the CAS (Coffrini, 2018).

Doping scandals have continued to rock the sporting world and there are a number of ethical concerns associated to these historical doping cases. Harms to an athlete's health are at the forefront of these concerns and it is worrying that athletes appear willing to risk their health in the pursuit of success. In the following section, I will present and examine some of prevalence literature on doping in sport and also present and examine some qualitative literature on athletes' motives to use doping substances.

2.1.1 *Elite sport*

Whilst the primary focus of the thesis is recreational sport, I argue that it is essential to understand some of differences between elite and recreational sport. Within this first section, I present and examine some of the prevalence statistics and the motivations to use doping substances within elite sport.

2.1.2 *Elite sport and doping prevalence*

Identifying the true prevalence of doping in sport is difficult. The existing evidence base utilises a range of methodological approaches and a range of definitions. These methodologies are not subject to wide agreement and perhaps add to challenges when attempting to establish the true prevalence of doping within sport. Moreover, athletes participating in drug tested competitions fear possible repercussions if they were to admit to doping and therefore, are unlikely to disclose this information. These challenges make establishing the true prevalence of doping problematic. Nonetheless, below, I will outline some of the prevalence literature for doping in elite sport.

The WADA's testing figures consistently demonstrate that Adverse Analytical findings sit around 2% (WADA, 2017; WADA; 2018; WADA; 2019). The WADA do not specify at what levels these athletes participate, whether this be elite or recreational levels. Thus, we are unable to determine whether a greater percentage of elite or recreational athletes receive anti-doping sanctions. Whilst the WADA consistently report a figure of 2%, the true prevalence of doping is believed to be much greater in elite sport.

According to Pitsch, Emrich & Klein (2007), at any point during an athlete's career, it is said that the estimated prevalence of doping within elite-sport falls between 25.8% - 48.1%. Pitsch, Maats & Emrich (2009) replicated the study in 2009 and claimed the prevalence to be 9.6% - 35%. And in an additional study, Pitsch & Emrich, (2012), outlines the prevalence of doping to be between 10.2 - 34.9%. These figures are evidently much higher than those reported by the WADA and this raises a number of questions with regards to the efficacy of doping control tests and the efficacy of anti-doping more generally. If these estimated prevalence figures are anything to go by, then the WADA appears to fail to ensure doping-free sport, and it is possible that athletes will risk their health whilst using doping substances.

In a further prevalence study, de Hon, Kuipers & van Bottenburg (2015) report between 14 - 39% of elite athletes currently dope and in a final study, Ulrich et al., (2018), estimates the prevalence of doping in the past year to be 43.6%. Athletes were

participating in the 13th International Association of Athletics Federations World Championships in Athletics (WCA) in Daegu, South Korea in August 2011. The study also goes on to claim that 57.1% of athletes in the 12th Quadrennial Pan-Arab Games (PAG) in Doha, Qatar in December 2011 doped in the past year. If these prevalence estimates are to be believed, then elite sport appears to have serious doping concerns and a number of athletes are competing doped. There were, however, some concerns with this prevalence study, and initial suggestions outlined that some responses given by some athletes to 'yes' or 'no' answers, were extremely quick. This suggested some athletes might not have fully understood some of the questions or could have misinterpreted what had been asked of them. Due to these uncertainties, this ought to be considered carefully when analysing and interpreting these estimate findings.

Above, I have presented and examined some of estimated prevalence figures for doping in elite sport. It is notable that the methodologies of prevalence studies are hotly contested and not subject to wide agreement. These include definitional variances, what an athlete considers to be a doping substance, what the study considered to be a doping substance, the level of sporting participation, elite or competitive recreational athletes and the variances within these definitions. Some studies investigated doping over the current season, during any point in the athlete's lifetime, at any point in an athlete's career or whether the individual was currently using doping substances. Moreover, due to the fact that anti-doping is a punitive system, elite athletes may be less likely to reveal their use of doping substance due to the fear of anti-doping reprisal. It is also notable that some studies included recreational drugs, whereas other studies overlooked these substances. These subtle differences are important in our understanding and interpretation of these prevalence estimate studies. Nonetheless, what is clear, is that these studies estimate doping prevalence to be much greater than the percentage of doping athletes the WADA catch. Due to the health concerns associated with doping substance use (Pope et al., 2014; McVeigh et al, 2015; Goldman; 2019), and that fact that anti-doping struggles to ensure doping-free sport, I find this particularly concerning.

Having presented and examined some the doping prevalence literature within elite sport, I move to consider some of qualitative literature exploring elite athletes'

motivations to use doping substances.

2.1.3 Elite athletes, doping and motivations

Evidently, the estimated prevalence of doping within elite sports sits much higher than those caught using doping substances. To understand why elite athletes sometimes dope, I will briefly explore some the literature that outlines elite athletes' motivations to use doping substances.

Goode (2015) outlines when society rewards something, many are motivated to obtain it. Within a sporting context, there are rules which athletes must adhere to, but these rules are flaunted by those desperate for success. Thus, performance enhancement and the desire to win are the most notable motivations to dope (Scarpino et al. 1990, Laure & Reinsberger 1995; Bloodworth & McNamee, 2010; Lenntillon-Kaestner & Carstairs, 2010; Kirby & Guerin, 2011). Further motivations were identified through financial and injury setbacks, and these were considered to be doping pressure points. Doping pressures points were identified by Bloodworth et al., (2010) and these were points in an athlete's career when individuals might find themselves more susceptible to doping. The identification of these potential pressure points is an important tool for the WADA and the notion of doping-free sport. If doping behaviors can be narrowed down to specific points during an athlete's career, anti-doping control tests could be directed towards these pressure-points and potentially improve anti-doping efficacy. Target testing is something recognized by the WADA and outlined within their International Standards Document for Testing and Investigations (WADA, 2020). The document identifies where testing might be focused and this links directly the pressure-points identified by Bloodworth et al., (2010).

In additional literature, Lenntillon-Kaestner et al., (2010) report that curiosity, the notion of obtaining goals that were not achievable without doping substances, performance set-backs - such as losing, the desire to maintain levels of performance, and the desire to achieve professional contracts were amongst the motivations to use doping substances. Other factors related to how engaged an individual was in the

sport and whether they could see a future outside of the sport or had alternative career routes they could pursue. Social pressures and coercion from team-mates were also noted as a motivation to dope. Kirby, Moran & Guerin, (2011) outlines similar motivations and also adds that the widespread use of doping substances and their moral permissibility within elite sport motivated and influenced doping behaviours.

Whilst this literature provides some context, some athletes might withhold important information due to the fear of anti-doping reprisal. Moreover, the level of competition and the age of participants can be scrutinised, with a number of studies focusing on younger athletes. Whilst these athletes are high achieving and promising athletes within their age categories, they are yet to have established careers within elite sport. Studies focusing on younger populations only present a snapshot of motivations for these specific populations. It is also notable that some studies used questionnaires and surveys to attain this data and in doing so, potentially missed out on some the finer details that would have been achieved within interviews or focus groups. By overlooking some of the finer details associated with these experiences, our understanding of these risk-taking practices is limited.

The above section explores literature to better understand the use of doping substances within elite sport. Whilst the primary focus of this thesis concerns recreational athletes, it is important to first get a grasp of the broader problem. Until we understand and consider the wider picture, it is difficult to focus on specific issues within recreational sport. It is clear that doping within elite sport revolves tightly around performance enhancement and the rewards and success that are possibly obtained through doping. Success for elite athletes is rewarded through financial gain, recognition and status. Thus, some elite athletes appear willing to use doping substances to boost their chances of sporting success.

Next, I explore some of the prevalence statistics and motivations to use doping substances within recreational sport. Whilst there is a body of research examining elite sport, bodybuilding and gym populations, there is limited evidence within competitive recreational sport (Christiansen et al., 2020).

2.1.4 Recreational Sport

In this short section, I examine some of the literature highlighting doping prevalence in recreational sport. The definition of the recreational athlete is ambiguous, with some studies focusing on competitive recreational athletes and others including gym users, bodybuilders and high school students. It is also notable that these definitional uncertainties are not restricted to prevalence studies. In a recent European report, NADOs outlined the use of a number of different definitions and this has led to a disjointed anti-doping approach within recreational sport (Christiansen, Bloodworth, Ham & Cox, 2020). Some NADO's include gyms, fitness centres and the general population within their definition of a recreational athlete, whereas other NADO's only include competitive athletes. Whilst the WADA have included a definition of recreational athletes within the revised 2021 Code (WADA, 2020), the WADA failed to include a definition of the recreational athlete up until that point (WADA, 2009; WADA, 2015). Due to these ambiguities, the prevalence literature within recreational sport should be treated with caution. The following section spans competitive recreational sport, gyms and the general population.

2.1.5 Recreational sport and doping prevalence

Within a study of German recreational athletes, the study found that between 3.35% and 10.55% had used doping substances at some point during their lifetime (Frenger, Emrich, & Pitsch, 2013). Notably, however, the study reports a low response rate and fails to specify the true numbers that took part in the study. The study goes on to estimate from a population of over 20 million amateur and recreational athletes in Germany, nearly 900,000 individuals would have used doping substances in the last season. Whilst these are only estimates and study methodologies are hotly contested, these are alarming numbers of people. In an additional survey of 484 recreational athletes within 11 German gymnasiums, the findings revealed that 12.9% of the men and 3.6% of the women reported the use of anabolic steroids (Raschka, Chmiel, Preiss & Boos, 2013). Worth pointing out, Raschka and colleagues focus exclusively on anabolic steroids and although these drugs are the most commonly used enhancement drugs (Evans, 2004, Evans-Brown and McVeigh, 2009; Kanayama et al., 2010), this does away with a number of other substances included on the WADA's Prohibited List (WADA, 2020). Thus, the true prevalence of doping is potentially higher than the

numbers reported above. Within an American study, Pope, Kanayama, Athey, Ryan, Hudson & Baggish (2014), report an estimation of 2.9–4.0 million people between the age of 13–50 years use AAS. And within an additional study, life-time prevalence of AAS use within Nordic countries use was 2.1% (Sagoe, Torsheim, Molde, Andreassen & Pallesen, 2015). Thus, meaning millions of people have used AAS.

Within the UK, there is limited prevalence literature, however, The Home Office (2018) reports that 411,00 adults use AAS in England and Wales, but the true number is believed to be much greater. In a recent newspaper article, it is reported that up to 1 million British people have used AAS (Morris, 2018). Additionally, a study conducted via an online survey between 27-31 January 2017, found that 8% of 1,025 British adult members of sports clubs, teams or gyms, reported the use of AAS (BBC, 2017). Although these figures are somewhat difficult to comprehend, they support the notion that doping is not only a concern within sport, but also within the general public.

Like elite sport, establishing the true prevalence of doping in recreational sport is challenging. The definition of recreational athletes differs from one study to the next and this proves challenging when attempting to establish the true prevalence of doping within competitive recreational sport. Within some studies, recreational athletes include individuals from gyms and bodybuilding communities, hence the prevalence of doping substances use is higher within these studies. It is also notable that some studies focus on the use of one specific doping substance (i.e. AAS) and others include all the substances included on the WADA's Prohibited List (WADA, 2020). Thus, there is clear variance between these prevalence estimates, and this should be noted when comparing these studies. When we consider that millions of people make up recreational sport (Europe Active, 2020), we are talking about millions of people worldwide who use doping substances. Not only is this a clear issue for anti-doping authorities and sporting integrity, but it is a clear concern for public health. If great numbers of individuals are using doping substances, some of whom might be considered minors, then the potential for health concerns is a real possibility.

Having presented some of the doping prevalence literature from recreational sport, I now examine some of the motivations for recreational athletes who dope.

2.1.6 *Recreational sport, doping and motivations*

Within the following section, I explore the literature that examines the motivations of recreational athletes who use doping substances. Within a recent European report, it is outlined that we know little about competitive recreational sport (Christiansen et al., 2020). Of what studies there are available, a number of studies have used questionnaires. Whilst questionnaires tend to be good at fact finding, they are restricted in the sense that they cannot push participants further to examine deeper underlying reasons. This means we are limited to more superficial information and this limits our ability to understand deeper issues within that specific risk-taking practice. Understanding the motivations behind these risk-taking practices is important to respond to these health concerns appropriately. Without the relevant understanding of these risk-taking practices, we are likely to overlook important details and be somewhat restricted within harm reduction efforts. Of what qualitative work there is available with recreational sport, investigations tend to explore doping substance use within specific communities, such as bodybuilders or gymnasiums (Monaghan, 2002). Less is known within organised sport and this is concerning when considering appropriate policy responses and harm reduction initiatives.

Within the AAS literature, the motivations to use these drugs is to increase muscularity (Petrocelli et al. 2008; McVeigh et al., 2015; Bates & McVeigh, 2016; UKAD, 2020) and also to improve physical appearance (Van Hout & Kean, 2015; Hanley Santos & Coomber, 2017; UKAD, 2020). Further motivations are outlined to increased strength (Smith & Stewart 2012), to improve sports performance (Sagoe et al., 2014), associated with body image disturbance or dissatisfaction (Sagoe et al., 2014), to achieve a healthy appearance (Van Hout et al., 2015), and to enhance sexual attraction (Petrocelli et al., 2008).

From this body of literature, it is clear that there is a myriad of motivations to use doping substances within recreational sport that reach far beyond sporting performance. Monaghan (2002) conducted a study on bodybuilders and found that these individuals used doping substances to refine and sculpt their bodies rather than simply building size (Monaghan 2002). In addition, Christiansen (2015) outlines that

younger men around the age of 25 are more likely to use anabolic steroids based upon appearance goals. It is said that younger men fight to establish identity and masculinity through muscularity and doping substances. Furthermore, body image dissatisfaction has been outlined as a driving factor behind doping substance use (Kanayama, Hudson & Pope, 2020).

Due to the definitional ambiguities concerning recreational sport, there is a clear myriad of motivations to use doping substances. Existing literature tends to focus on specific communities, such as bodybuilders, gym users or the general population and often overlooks competitive recreational sport (Christiansen et al., 2020). It is notable that studies often employ questionnaires and surveys to conduct their research and as a consequence, sometimes lack the level of detail required to understand these risk-taking practices. Without qualitative research, we lack true understanding of what goes on within these specific environments, and without this understanding, we are less likely to make good, ethical decisions on these risk-taking practices.

Although not necessarily focused on elite or recreational sport, Bates, Tod, Leavey & McVeigh., (2019) outline a range of potential influences on decision to use doping substances. Here, a socioecological model is applied to the use of doping substances and it is clear that there is a breadth and complexity to doping behaviours. The model recognises different levels of influence and inter-connecting factors that contribute to doping substance use. The factors are related to individual (knowledge, attitudes and beliefs about AAS, body ideals, gender roles and masculinity, demographic and self-confidence), social network (AAS prevalence and attitudes and feedback from others), institutional (AAS prevalence and attitudes), community (AAS prevalence and attitudes) and societal (cultural norms relating to AAS and body image). Bates et al., (2019) outlines that influential factors that are likely to change over time and with experience. By analysing this model, it allows us to better understand the complexities behind doping substance use and perhaps provides some evidence to support interventions targeting the use of these substances.

Having explored some of the prevalence literature of doping within elite and recreational sport and also examined some of the motivations behind doping substance

use, I move on to present the anti-doping strategy.

2.2 Anti-Doping

It is clear that the use of doping substances continues to persist within both elite and recreational sport and there are a range of motivations associated with these risk-taking practices. Over the years, there have been several different attempts to tackle doping within sport and within the subsequent section, I present and explore some of the most notable moves within the anti-doping movement. I begin by exploring the history and anti-doping in sport.

2.2.1 History of Anti-Doping

Before the WADA was established, various attempts were made to tackle doping in sport. In this short introductory section, I outline a brief insight detailing some of the steps made within anti-doping over the years and also detail the most current approaches.

Perhaps one of the earliest anti-doping approaches, in 1928, was initiated by the International Association of Athletics Federation (IAAF). The IAAF were the first organisation to introduce some general rules prohibiting competitors from using stimulants. Notably, however, there is no real evidence to support that any testing occurred or that that rules were meaningfully being enforced by the IAAF (Ljungqvist, 2017). In 1967, a proposal was presented that prescribed a list of prohibited substances, and the rules for testing for those prohibited substances at the Olympic Games. But the IOC, in 1968, declared that their role would not be to conduct doping controls. The IOC suggested that National Olympic Committees (NOCs) and International Federations (Ifs) take on these responsibilities. In 1972, during the Munich Summer Olympic Games, the IAAF rolled out the most comprehensive testing programme sport had witnessed, putting themselves at the very forefront of anti-doping control in sport (Ljungqvist, 2017).

Anti-doping faced some real challenges through the 1970's and one of the arguments levelled at the creation of such rules pointed towards fairness; the argument questioned why athletes were not allowed to use performance enhancing substances, that in general, the public could (Ljungqvist, 2017). Whilst some still support these critical views of anti-doping today and call for its abolishment, anti-doping has retained its position at the very heart of sport. Nonetheless, it was apparent that anti-doping needed to further strengthen its efforts and ensure a more thorough approach was employed to protect doping-free sport. In the 1980s, most IFs had introduced doping tests and in 1986, the IOC inaugurated the International Olympic Charter against Doping in Sport and in 1989, the Anti-Doping Convention of the Council of Europe was finalised (Müller, 2010). The aim of the convention, 'the Parties, with a view to the reduction and eventual elimination of doping in sport, undertake, within the limits of their respective constitutional provisions, to take the steps necessary to apply the provisions of this Convention' (Council of Europe, 1989). Although the creation of the Anti-Doping Convention demonstrated anti-doping progress, the use of doping substances continued to persist in sport. Notably, within the Tour de France, in the second half of the 1990s, exposure of deep-rooted doping shocked the sporting world. These events outlined the need for an independent, robust and international anti-doping agency, and in 1998, the IOC proposed the idea of an international Anti-doping Agency (Müller, 2010).

2.2.2 The World Anti-Doping Agency

In 1998, the exposure of the Festina doping scandal, which revealed 30+ years of doping within professional cycling and the Tour de France, proved to be a catalysis moment for doping and anti-doping. After the exposure of these shocking events, the International Olympic Committee (IOC) called a world conference on doping in sport. This movement brought all parties tasked within the anti-doping movement together, and as a result, the first world conference on doping in sport took place. The conference was held in Lausanne, Switzerland, on 2-4 February 1999. The involvement of many of sport's key actors demonstrated the scale and significance of the problem. From the conference came the emergence of the Lausanne Declaration on Doping in Sport. In accordance with the Lausanne Declaration on Doping in Sport came the creation of the World Anti-Doping Agency (WADA). Established on

November 10, 1999, in Lausanne, the WADA was founded as an independent international agency composed and equally funded by sport and governments around the world. The mission of the WADA is to ‘lead a collaborative worldwide movement or doping-free sport’ and has a vision of ‘a world where all athletes can compete in a doping-free sporting environment’. The WADA hold core values in ‘integrity’, ‘accountability’ and ‘excellence’, and takes responsibilities within scientific research, education, development of anti-doping capacities, and the monitoring of the World Anti-Doping Code. The WADA also sets International Standards that National Anti-Doping Organisations (NADO) must implement in their respected countries around the world (WADA, 2015; WADA; 2020).

Established on November 10, 1999, in Lausanne, the WADA was founded as an independent international agency composed and equally funded by sport and governments around the world. The mission of the WADA is to ‘lead a collaborative worldwide movement for doping-free sport’, and the WADA has a vision of ‘a world where all athletes can compete in a doping-free sporting environment’. The WADA outlines that anti-doping programs seek to protect the health of athletes and to provide the opportunity for athletes to pursue human excellence without the use of prohibited substances and methods. Anti-doping programs seek to maintain the integrity of sport in terms of respect for rules, other competitors, fair competition, a level playing field, and the value of clean sport to the world (WADA, 2020). In short, the WADA intends to protect the notion of doping-free sport, sporting integrity and the health of athletes. The reference to health is significant here and I will pay particular attention to the notion of health later within this thesis.

The World Anti-Doping Code is a standalone document that lays down a framework of rules to be implemented in all sports around the globe, ‘the document harmonises anti-doping policies in sports and in all countries’. The WADA Code is proven to be an effective tool within the harmonisation of worldwide anti-doping efforts and this is why the WADA have continued to implement and improve the WADC over the years. On 1 January 2004, the first WADC came into effect, succeeding this, the amended WADC came into effect on 1 January 2009. Following further amendments, the 2015 WADC came into effect on 1 January 2015. With the current 2015 WADC under the review process, the revised WADC will come into effect on

1 January 2021. The revised 2021 Code outlines new definitions for the recreational athlete, offers sanctioning leniency towards recreational athletes and has updated its fundamental rationale to be to protect doping-free sport, protect sporting integrity and protect and promote athlete health (WADA, 2020). With the additions approved for the 2021 Code, it is notable that the WADA have placed growing emphasis on the notion of health, and this should be noted for later discussions within this thesis.

2.2.3 The WADA and notable definitions

In this short section, I will ensure that a firm grasp of key definitions are understood. Outlining these definitions will ensure that a more precise understanding of arguments is undertaken. First, I will present how the WADA defines doping.

2.2.4 Doping

The WADA defines doping to be ‘the occurrence of one or more of the anti-doping rule violations set forth in Article 2.1 through Article 2.11 of the Code’ (WADA, 2020). These are:

2.1 Presence of a Prohibited Substance or its Metabolites or Markers in an Athlete’s Sample

2.2 Use or Attempted Use by an Athlete of a Prohibited Substance or a Prohibited Method

2.3 Evading, Refusing or Failing to Submit to Sample Collection by an Athlete

2.4 Whereabouts Failures by an Athlete

2.5 Tampering or Attempted Tampering with any part of Doping Control by an Athlete or Other Person

2.6 Possession of a Prohibited Substance or a Prohibited Method by an Athlete or Athlete Support Person

2.7 Trafficking or Attempted Trafficking in any Prohibited Substance or Prohibited Method by an Athlete or Other Person

2.8 Administration or Attempted Administration by an Athlete or Other Person to any Athlete In- Competition of any Prohibited Substance or Prohibited Method, or Administration or Attempted Administration to any Athlete Out-of-Competition of any Prohibited Substance or any Prohibited Method that is Prohibited Out-of-Competition

2.9 Complicity or Attempted Complicity by an Athlete or Other Person

2.10 Prohibited Association by an Athlete or Other Person

2.11 Acts by an Athlete or Other Person to Discourage or Retaliate Against Reporting to Authorities (WADA, 2020).

The WADA's definition of doping is broad, and its application appears more suited to an elite athletic population. What is more, the application of the WADA Code by NADOs differs between countries (Christiansen et al., 2020), and this points towards potential unfairness between athletes, with some NADOs imposing greater anti-doping restrictions than other NADOs.

2.2.5 *The athlete*

According to the WADA, an athlete can be defined as:

‘Athlete: Any Person who competes in sport at the international level (as defined by each International Federation) or the national level (as defined by each National Anti-Doping Organization). An Anti-Doping Organization has discretion to apply anti-doping rules to an Athlete who is neither an International-Level Athlete nor a National-Level Athlete, and thus to bring them within the definition of “Athlete.” In relation to Athletes who are neither International-Level nor National-Level Athletes, an Anti-Doping Organization may elect to: conduct limited Testing or no Testing at all; analyse Samples for less than the full menu of Prohibited Substances; require limited or no whereabouts information; or not require advance TUE’s. However, if an

Article 2.1, 2.3 or 2.5 anti-doping rule violation is committed by any Athlete over whom an Anti-Doping Organization has elected to exercise its authority to test and who competes below the international or national level, then the Consequences set forth in the Code must be applied. For purposes of Article 2.8 and Article 2.9 and for purposes of anti-doping information and Education, any Person who participates in sport under the authority of any Signatory, government, or other sports organization accepting the Code is an Athlete' (WADA, 2020).

By ensuring a better understanding of the definitional boundaries, I can be more precise in arguments and ensure that more robust arguments are formed. Prior to the 2021 Code, this was the only definition the WADA provided to determine an athlete. The definition meant that recreational and elite athletes were treated very much the same. This led to a number of recreational athletes receiving questionable anti-doping sanctions. One such case occurred in New Zealand, whereby Drug Free Sport New Zealand (DFSNZ) were accused of over prosecuting recreational athletes. These individuals often had no intention of cheating and in some cases, were not competing in sport and only had membership affiliation to a club (Johannsen, 2018). In relation to this specific example, the application of the WADA Code appears questionable, with the anti-doping sanction appearing disproportional and unjustified. Due to growing concerns regarding the scope and application of the Code, the WADA decided to include a definition of recreational athletes within the revised 2021 Code. Below, I present the definition of a recreational athlete provided by the WADA.

2.2.6 The recreational athlete

According to the WADA, a recreational athlete is defined as:

'Recreational Athlete: A natural Person who is so defined by the relevant National Anti-Doping Organization; provided, however, the term shall not include any Person who, within the five years prior to committing any anti-doping rule violation, has been an International-Level Athlete (as defined by each International Federation consistent with the International Standard for

Testing and Investigations) or National-Level Athlete (as defined by each National Anti-Doping Organization consistent with the International Standard for Testing and Investigations), has represented any country in an International Event in an open category or has been included within any Registered Testing Pool or other whereabouts information pool maintained by any International Federation or National Anti-Doping Organization' (WADA, 2020).

By defining recreational athletes, the WADA better establishes its boundaries, ensures that there is less conceptual confusion and better ensures that recreational athletes are not unfairly punished. Whilst the inclusion of these definitions allows us to get clearer on the problem, in the main, anti-doping was established to fight doping within elite sport and its remit has expanded to include recreational athletes. The WADA has also included greater sanctioning leniency towards the sanctioning of recreational athletes. The WADA state:

‘Where the anti-doping rule violation not involving a Substance of Abuse is committed by a Protected Person or Recreational Athlete, and the Protected Person or Recreational Athlete can establish No Significant Fault or Negligence, then the period of Ineligibility shall be, at a minimum, a reprimand and no period of Ineligibility, and at a maximum, two years Ineligibility, depending on the Protected Person or Recreational Athlete’s degree of Fault’ (WADA, 2020).

Sanctioning leniency towards recreational athletes is a useful addition within the WADA Code, to better ensure fairness and proportionality. By distinguishing between recreational and elite athletes, NADOs have the necessary framework required to better ensure harmonisation and application of anti-doping rules and ensure that recreational athletes are not disproportionately sanctioned for minor and unintentional breaches of the WADA Code.

Although positive steps have been made within the 2021 WADC, with growing emphasis on the notion of health (WADA, 2020), anti-doping is still very much the same machine for elite and recreational athletes. Moreover, as the evidence suggests

that doping continues to persist within both elite and recreational sport (de Hon et al., 2014; Christiansen et al., 2020), it is apparent that the health of athletes is not protected. If ADOs cannot guarantee the notion of doping-free sport, they cannot be seen to protect the health of athletes. What is more, although the WADA outline health promotion and protection amongst its fundamental rationale (WADA, 2020), the application and enforcement of ADP has possibly attributed to some unintended and negative consequences.

Over the years, the anti-doping message has been driven forward similar to messages surrounding the ‘war on drugs’ approach. As a consequence of this hardline approach, doping behaviours have been driven underground and away from healthcare professionals (Evans-Brown et al., 2009). The media has also fueled distrust within the general public, leading to a broad range of negative connotations associated to doping (Mulrooney, van De Ven, McVeigh & Collins, 2019). Due to the fact that doping is stigmatized, individuals are less likely to seek advice from healthcare professionals when using doping substances. Therefore, these individuals are more likely to risk their health whilst using doping substances (Evans-Brown et al., 2009; Kayser et al., 2015; Henning, 2017; Kayser et al., 2017). Due to possible stigmatization and distrust, some athletes rely on friendship networks for advice and information. This over reliance of friendship networks is also said to contribute to the possible harms associated with doping substance, as incorrect information is often shared between these individuals (Larance, Degenhardt, Copeland & Dillon, 2008; Richardson, Dixon & Kean, 2019). This is concerning when we consider the health of these individuals and I question whether anti-doping should consider an alternative approach that better protects the health of athletes.

Before I examine this argument any further, I explore additional extensions of anti-doping policy within recreational sport and signpost some ethical concerns for later discussion within this thesis.

2.2.7 Recreational athletes and the extension of Anti-Doping policy

Whilst anti-doping was established to combat doping in elite sport, its scope has expanded over the years to include recreational athletes. Due to this expansion, in more recent times, there has been some questionable applications of ADP within recreational sport and within this section, I explore some of these cases.

Within the UK, a growing number of anti-doping initiatives have placed emphasis on recreational sport. UKAD have educational programmes for schools (Get Set - For the spirit of sport), the clean sport accreditation for Universities and Colleges and the Coach Clean programme, for coaches of all levels of sport (UKAD, 2019). These programmes demonstrate that there is a clear and growing emphasis on anti-doping in recreational athletes. In The USA, two anti-doping programmes identify recreational athletes to be a focus. *Race Clean*, established in 2013 and revamped in 2016, is a programme that funds anti-doping tests in cycling at both elite and recreational levels. Working in partnership with USADA, if a recreational cyclist is caught doping, even if it is for the first time, they could receive a sanction banning them for up to four years (USA Cycling, 2019). The second programme, *Lift Clean*, was introduced by USA Weightlifting, and partners with the USADA. Under *Lift Clean*, USA Weightlifting will expand its doping tests to recreational competitions and athletes of any level could receive anti-doping sanctions (USA Weightlifting, 2019).

Whilst these anti-doping initiatives aim to protect and preserve sporting rules doping-free sport and the health of athletes, the application and scope of these policies can be questioned. Previous applications of anti-doping rules have seen recreational athletes within New Zealand face disproportional and unjustified sanctions. The extension of anti-doping into recreational sport saw Drug Free Sport New Zealand (DFSNZ) sanction a recreational rugby player for ordering a prohibited substance online in 2014 and 2015. DFSNZ handed out a four-year ban, but problems arose when it was discovered the individual had not played rugby since 2010. Nonetheless, DFSNZ argued that the rugby player had been registered to a rugby club between 2008-2015. The player was registered without his consent or knowledge, as the rugby club had rolled over the registrations of its members, year-after-year. Thus, DFSNZ found the individual to have committed an ADRV and issued the player with a four-year ban from sport. The sanction was later over-ruled

as details emerged supporting the players absence from the game (Johannsen, 2019). Although the case was over-ruled, this individual was labelled ‘a dooper’, and this raises some serious ethical concerns and questions with regards to the application and extension of anti-doping policy.

In a recent paper, it is noted that 40% of anti-doping sanctions are inadvertent, and athletes are often cut off within little to no support after anti-doping rulings (Hong, Henning & Dimeo, 2020). The sanctioning process is argued to leave athletes extremely vulnerable, with cases of depression and suicide amongst those sanctioned (Hong et al., 2020). If recreational athletes are unfairly sanctioned for inadvertent doping offences, then it likely that ADP will fuel distrust amongst athletes and leave athletes vulnerable. What is more, livelihoods outside of sport might be jeopardised, shame and embarrassment brought to families and reputations tarnished. As the WADA outlines that it aims to promote and protect health (WADA, 2020), I question whether pursuing athletes in this manner is justified and perhaps contradicts the notion of health. If recreational athletes are unfairly sanctioned for minor ARDVs, then these individuals might be exposed to emotional vulnerabilities and further health risks.

Within Wales, it is noted that recreational level Welsh rugby players receive a disproportionate number of anti-doping sanctions (Whitaker & Backhouse, 2017). These sanctions were often unrelated to performance enhancement and a number of athletes pleaded some kind of innocence. Excuses ranged from using a contaminated nutritional supplement, to a lack of anti-doping education. The study makes the important point that a small number of sanctions were issued to individuals that would be classified as athlete support personnel under the WADC. This carries a range of consequences for these individuals, not only because the sanction would prohibit the individual from participating in any form of organised sport, but the sanction might also threaten careers due to fact that the sanction prohibits these individuals from working in a sporting environment (Whitaker et al., 2017). Due to the fact that recreational Welsh rugby players appear to receive a disproportionate number of anti-doping sanctions, something also supported by the UKADs current list of anti-doping sanction (UKAD, 2020), this specific population appears to be at greater risk. Whilst there are clear doping concerns within recreational level Welsh

rugby, there is very limited evidence investigating this population. This study looks to investigate doping within recreational Welsh rugby and examine a range of policy responses to this risk-taking practice.

Having established some general doping literature and the current anti-doping strategy, I move to consider specific doping concerns within rugby and more specifically, recreational Welsh rugby.

2.3 The Welsh Rugby Union and doping

Having identified doping concerns within elite and recreational sport and outlined the current anti-doping strategy, I now offer a focused insight into doping concerns in Welsh rugby. Before I explore this notion any further, I will ensure that a sound understanding of rugby is presented.

2.3.1 Rugby Union

Rugby union is a team game which consists of two forty-minute halves. The two sides each field fifteen players who are assigned individual positions, within the wider grouping of eight forwards and seven backs. Typically, the forwards would wear numbers 1 to 8 and the backs 9 to 15. Forwards would typically be heavier than the backs, with intra-positional differences. Over the years, a drive towards professionalism has meant that players are now heavier, stronger and fitter than they have ever been (Olds, 2001). It is also noted that rugby performance and success is associated to high levels of muscular strength, power and speed and endurance (Duthie, Pyne & Hooper, 2003) and Backhouse (2018) notes that school-boy rugby players perceive 'size matters', identifies that these individuals had been exposed to doping substances within gymnasiums and identifies doping vulnerability among that population. If younger individuals are exposed to doping substances, then perhaps this is not just a concern for sport, but also a concern for public health.

Having outlined the game of rugby union, I move to focus on Welsh rugby union (WRU) and provide some background work.

2.3.2 The Welsh Rugby Union

Within this short section, I will ensure that the WRU is understood more broadly and is also understood in terms of playing structure. By understanding the playing structure, we are better able to determine what constitutes as a recreational athlete and ensure a more precise argument is made.

The Welsh Rugby Union 'have been the guardians of Wales's national sport since 1881. A group of 11 clubs – Swansea, Lampeter, Llandeilo, Cardiff, Newport, Llanelli, Merthyr, Llandovery, Brecon, Pontypool and Bangor – came together at the Castle Hotel, Neath on 12th March 1881, to form the Welsh Rugby Football Union (WRU, 2019). The WRU oversee responsibility for Welsh rugby, including 320 member clubs, the national team national leagues and cups. Below the national team, Wales has four regional clubs, Cardiff Blues, Swansea and Neath Ospreys, Llanelli Scarlets and Newport Gwent dragons. These four regions play in The Pro 14. Below the Pro 14 clubs is the Welsh Premier Division. This division includes clubs such as Cardiff RFC and Newport RFC. Below the Welsh Premier Division is the Welsh Championship. This division consists of teams such as Swansea RFC and Merthyr RFC. The levels then split into 3 leagues of division 1; 3 leagues of division 2; 4 leagues in the central division; and 14 leagues in division 3 (further breakdown provided on the WRU website). Whilst players can move between leagues and divisions over the course of a season, the main focus is on players playing in and below the Welsh Premier Division. Typically, these players would be classed as sub-elite and make up recreational teams within Welsh rugby. Notably, however, all these levels could be subject to doping control tests (WRU, 2019; WADA; 2020).

Having provided some details behind the structure of the WRU and what constitutes as a recreational rugby player, I move to explore evidence of doping in rugby.

2.3.3 Doping in rugby union

Above, I have outlined the structure of Welsh rugby union and next, I explore doping concerns in rugby union.

Rugby union is facing increased pressures with a total number of 25 individual athletes currently serving anti-doping sanctions issued by UKAD. In Wales, there are currently 9 individual athletes under the WRU's jurisdiction who are serving anti-doping sanctions, a disproportionate number play at the recreational level (Whitaker & Backhouse, 2017; UKAD, 2020). Within the academic literature, few studies have examined doping in rugby union, ever fewer have attempted to attain rich and insightful first-hand accounts of doping experiences and none have investigated doping within recreational levels of Welsh rugby.

Of the two published studies conducted in the field of doping in rugby union, the evidence suggests that doping occurs within both the elite and recreational levels of the game. This short section explores these papers and outlines the justification for further research.

In a study investigating (n=105) rugby union players' use-and-misuse of substances and factors related to doping behaviours, it was noted that approximately 52% of the subjects used dietary-supplements and 23% reported planned doping behaviour. The study also demonstrated 55% of the respondents believed that doping is present in rugby (Sekulic, Bjelanovic, Pehar, Pelivan & Zenic, 2014). Although the above study suggests that some rugby players demonstrate planned doping behaviours, and have the perception that doping is commonplace amongst rugby players, we are left with little qualitative evidence to understand doping within this population. Moreover, the results are restricted to a population of high-level rugby players within the Croatian national league, thus, these findings should be treated with some caution.

In an additional study, an investigation was conducted on sanctioned rugby union players (n=50). These players were playing in the English, Welsh and Scottish Rugby Union, between 2009 - 2015. The findings reveal that over 50% of the sanctions that were issued to rugby players were to players within recreational levels of the game and the majority of sanctions were issued to players under the age of 25. Moreover, the study outlined Wales to be a hotspot for players receiving anti-doping sanctions. The study also examined reasons for rugby players committing ADRV's and the data revealed five main reasons: (1) to enhance recovery from injury; (2) to cope with work and sports demands; (3) to aid weight management; (4) for personal

reasons; and (5) naïve use of nutritional supplements. It was also noted that few ADRV's were committed with the intention of performance enhancement and the majority of sanctioned athletes pleaded some innocence (Whitaker et al., 2017). This research supports the notion that there are doping concerns in rugby union and provides evidence of particular doping concerns within recreational levels of Welsh rugby. Notably, however, the study is limited to the data retrieved from athlete hearings that are publicly available on UKAD's website. Accordingly, the trustworthiness of these hearing responses can be questioned, with athletes possibly pleading no significant fault in the hope of receiving reduced sanctions.

From the studies presented above, we begin to understand that there are doping concerns within rugby union and more specifically, recreational levels of Welsh rugby. There is, however, a clear lack of research and understanding of doping within recreational levels of rugby. Without this basic understanding, we will fail to attain the level of knowledge required when attempting to determine what policy ought to do, with doping within recreational levels of sport.

Outside of the academic literature, several news-paper articles have highlighted doping concerns in Welsh rugby. One of these reports surfaced in an investigation led by BBC 'Week In Week Out'. The report highlighted that steroid abuse was "off-the-scale" in Welsh grassroot and semi-professional rugby (BBC, 2015). Whilst various reasons have been suggested to contribute to the doping issues within recreational Welsh rugby, the head of UKAD, Nicole Sapstead, commented on the matter:

"We are seeing intelligence indicating that there is a big steroid problem particularly within Wales generally, a societal problem (...) maybe that inevitably starts to encroach on lower levels of any sport" (Sapstead, 2016).

This notion suggests that doping is not only a concern within the sporting arena but also for wider society and the general public. As doping is said to be heavily influenced by a range of socioecological factors (Bates et al., 2019), one can begin to understand and build a picture of these risk-taking practices. The extension of doping from elite sport, down to recreational levels and into the general population

demonstrates that doping is not only a concern for sport but public health (McVeigh & Begley, 2017). What is more, within elite sport, where athletes often have greater access to medical teams and resources, it is possible that the control of doping substances is more closely monitored. Elite athletes often have access to the best doctors and the use of doping substances might be done in a much more rigorous and well-thought-out manner. On the other hand, in recreational sport, where athletes are often participating for fun and enjoyment, the use of doping substances would likely have far less control and these individuals might be exposed to greater risks. Acknowledging these points, it is possible that recreational athletes engage in a greater number of risk-taking practices and are perhaps, more likely to experience harm.

The use of doping substances in society is also picked up by the WRU's chief executive, Martyn Philips, who states:

“It's a problem in society to start with (...) I wouldn't sit here and say that it's not an issue in rugby because the fact that one player getting banned is one too many as far as I'm concerned (...) so the challenge for us, not just in rugby but in sport generally, is we've got to try and get it out of the game. I don't think that's going to be easy (...) the fact that we've caught people suggests there's an issue. So, my job now is to get closer to that and to make sure we just become the best we can be to try and remove the problem.”
(Philips, 2015).

These claims suggest that the use of doping substances is perhaps not just a sporting problem but also a public health concern. This point appears to be supported by the Public Health Minister for Wales, Rebecca Evans, who reaffirms the notion that the use of doping substances is an issue for Welsh society, stating:

“It is not just a problem in sport - it is a wider societal issue. There are a worrying number of young people, especially men, purchasing and taking illicit substances for image reasons and some then participating in community sport. We must reverse this culture of IPED use if we are to protect a

generation of young people from the serious side effects they can cause.”
(Evans, 2017).

The evidence presented above supports the notion that the use of doping substances is a particular concern within Welsh rugby, however, there is extremely limited scientific evidence investigating doping concerns within this specific population. Whilst there is some suggestion that societal issues are to blame within Wales, once again, there is limited evidence to support these claims. Bates et al., (2019) points towards a range of socioecological factors that can contribute to doping and it is possible that some of these influences might contribute to doping within Wales. Notably, however, these claims have not been investigated within this specific population.

Having outlined that ADOs and NADOs struggle to protect the notion of doping-free sport within recreational Welsh rugby, it is possible that Welsh rugby players risk their health using doping substances. The potential significance of the health risks associated with the use of doping substances is concerning and within the following section, I explore some of these risks.

2.4 Doping and Public Health

There are clear concerns of doping within recreational levels of Welsh rugby and there are concerns that these doping cases stem from societal trends within Wales (BBC, 2015; Whitaker et al., 2017). Due the ongoing doping concerns within sport and the potential health risks associated to doping substances, some now consider doping to be a public health threat (McVeigh et al., 2017; UKAD, 2019). As outlined previously, the WADA aims to protect doping-free sport, sporting integrity and the health of athletes (WADA, 2020), however, all three of these aims appear to be under threat. Particularly concerning is the potential risk to an athlete’s health and within the following section, I explore some of the harms associated to the use of doping substances.

2.4.1 Doping and Harms to health

One of the main concerns associated to doping is the potential risk to athletes' health. Within the next section, I explore some of these health risks and detail why ADOs and NADOs are failing to do enough to protect health.

2.4.2 Health risks

Firstly, it is important to note that the literature associated with the health risks of doping substances tend to focus on anabolic androgenic steroids (AAS). AAS are the most commonly used drug when performance and image enhancement is considered (Evans-Brown et al., 2009; Bates, Begley, Tod, Jones, Leavey & McVeigh, 2019; Bates, Tod, Leavey & McVeigh, 2019), and Whitaker et al., (2017) outlines that the most commonly used doping substances amongst sanctioned rugby players were AAS. Moreover, AAS fall under the classification of anabolic agents, and the UKAD consistently report that this classification of substances are the most commonly detected substances within doping control tests (UKAD, 2019; UKAD, 2020). Whilst the classification of anabolic agents also includes a range of additional substances, tentative links can be made to AAS. Thus, this section will focus primarily on the health risks associated with AAS.

It is worth pointing out that clinical trials of AAS use in healthy individuals are limited due to the ethical concerns associated to this kind of research. There are clinical trials investigating the effects of therapeutic dosages of AAS. Notably, however, AAS users administer doses well above these therapeutic levels and would more likely encounter harm than the individuals within controlled trials. What evidence there is can be found through expert opinion, case studies, personal experiences (Evans-Brown et al., 2009; Llewellyn, 2010; Kayser & Broers, 2012; Smit & de Ronde, 2018). Moreover, academic literature tends to be conducted via surveys, is dated and lacks in depth (Mulrooney, van de Ven, McVeigh, Collins, 2019). Survey data is good at fact finding but struggles to attain a deeper level of understanding. What is more, due to the fact that AAS use is heavily stigmatized by the general public and prohibited within sport, some users are not forthcoming about their use. Thus, although evidence of the health risks associated with AAS has improved over the years, there are some limitations to our understanding of harm. Next, I will explore and examine some of the literature

detailing the health risks associated with AAS.

Pope et al., (2014) set out the various adverse effects associated with AAS and allows us to consider the broad range and severity of these health risks. Though schematic in character, it allows for relatively easy evaluation by non-professionals in relation to AAS usage.

Table 1. Adverse effects related with Anabolic Androgenic Steroids

Organ System/Effect	Severity
Cardiovascular	
Dyslipidemia, atherosclerotic disease	++
Cardiomyopathy	++
Cardiac conduction abnormalities	+
Coagulation abnormalities	+
Polycythemia	+
Hypertension	+
Neuroendocrine (males)	
HPT suppression, hypogonadism from AAS withdrawal	++
Gynecomastia	+
Prostatic hypertrophy	+/-
Prostate cancer	+/-
Virilizing effects	
Neuroendocrine (females)	++
Neuropsychiatric	
Major mood disorders: mania, hypomania, depression	++
Aggression, violence	+
AAS dependence	++
Neuronal apoptosis, cognitive deficits	+/-
Hepatic	
Inflammatory and cholestatic effects	+
Peliosis hepatis (rare)	+

Neoplasms (rare)	+
Musculoskeletal	
Premature epiphyseal closure (in adolescents, rare)	+
Tendon rupture	+
Kidney	
Renal failure secondary to rhabdomyolysis	+
Focal segmental glomerulosclerosis	+
Neoplasms (rare)	+/-
Immune Immunosuppressive effects	+/-
Dermatologic	
Acne	+
Striae	+

In order to appreciate their scaling, it is important to note that severity is scored as follows: ++, well-recognized and probably of serious concern; +, well-recognized but either less common or causing less serious morbidity; +/-, possible risks whose relation to AAS use remains poorly understood. Although this table is somewhat dated, it allows us to consider the different types, the diverse nature and severity of harms associated with AAS. More recent developments are identified below and throughout this section.

Evans-Brown and McVeigh (2009) report that there are a range of harms associated with the use of AAS. Harms of AAS can be understood as chronic and acute (Strauss et al., 1985), physical (Friedle, 1993), psychological (Bahrke, 1996) and dependence (Brower, 2002). Research also points towards AAS induced hypogonadism (Kanayama et al., 2015), cardiovascular events (Baggish et al., 2017) and brain impairments (Kanayama et al., 2013). In relation to some of the psychological harms including, dependency, withdrawal, aggression and violence, it is possible that these harms not only threaten the individual, but also the general public. If individuals use AAS and experience emotional irrationality and uncontrollable outbursts, then it is possible that these individuals might not only harm themselves, but also the general public. These harms suggest that AAS use is not just a sporting problem but also a public health concern.

Further evidence of harm points towards a number of reasons why and how these harms are encountered. Route of drug administration, oral or injectable (van de Ven, Zahnow, McVeigh & Winstock, 2020), the possibility of the transmission of bloodborne viruses, HIV, Hepatitis B and C (Hope et al., 2013; Hope et al., 2015; Wells & Van Hout, 2017; Goldman, Pope & Bhasin, 2019), which is something identified as a public health threat (McVeigh et al., 2017). Moreover, infections to injection site (Hope, McVeigh, Marongiu, Evans-Brown, Smith, Kimergård & Ncube, 2015), have also been reported amongst some of the harms encountered by AAS users. Research has also pointed towards the quality of drugs, with counterfeit and poor-quality drugs in circulation which can cause harm to users (Evans-Brown et al., 2009; Friedman, Arad, Amotz, 2016; Brennan, Wells & Van Hout, 2018). Once again, with growing rates of AAS prevalence within the general population, the black-market for counterfeit AAS is only likely to increase. Increasing demands for these substances will continue to drive the production of counterfeit and potentially harmful substances and this is not only a concern for sport but also public health. If recreational athletes use poor quality counterfeit doping substances, then these individuals might be exposed to any number of health risks. If these individuals require hospital treatment, then it is clear to see how these health concerns reach far beyond the sporting arena and far beyond a problem purely that of sport.

It is also possible that AAS users might also attain poor-quality information with regards to the use of these substances (Larance, Degenhardt, Copeland & Dillon 2008), which can also contribute to harm. It has also been noted that the age of users might determine harm, with adolescents at risk (Begley et al., 2016), however, there is limited work within this specific area. With growing rates of prevalence and minors also using AAS (Bates et al., 2019), this also highlights public health concerns. Furthermore, drug use practices have also been associated with harm (Llewellyn, 2010). These behaviours might include the quantities of drugs used, with higher dosages being more harmful (Brower, 2002), the duration these drugs are used for (Mulrooney et al., 2019), the use of multiple substances - known as polypharmacy (Brennan et al., 2011; Dunn, 2014), the number and frequency of drug cycles and whether users utilise post cycle therapy drugs (Griffiths, Henshaw, McKay & Dunn, 2017).

The most recent and relevant review of literature was conducted by Albano, Amico, Cocimano, Liberto, Maglietta, Esposito, Rosi, Di Nunno, Salerno & Montana (2021), and documents further adverse effects associated with AAS.

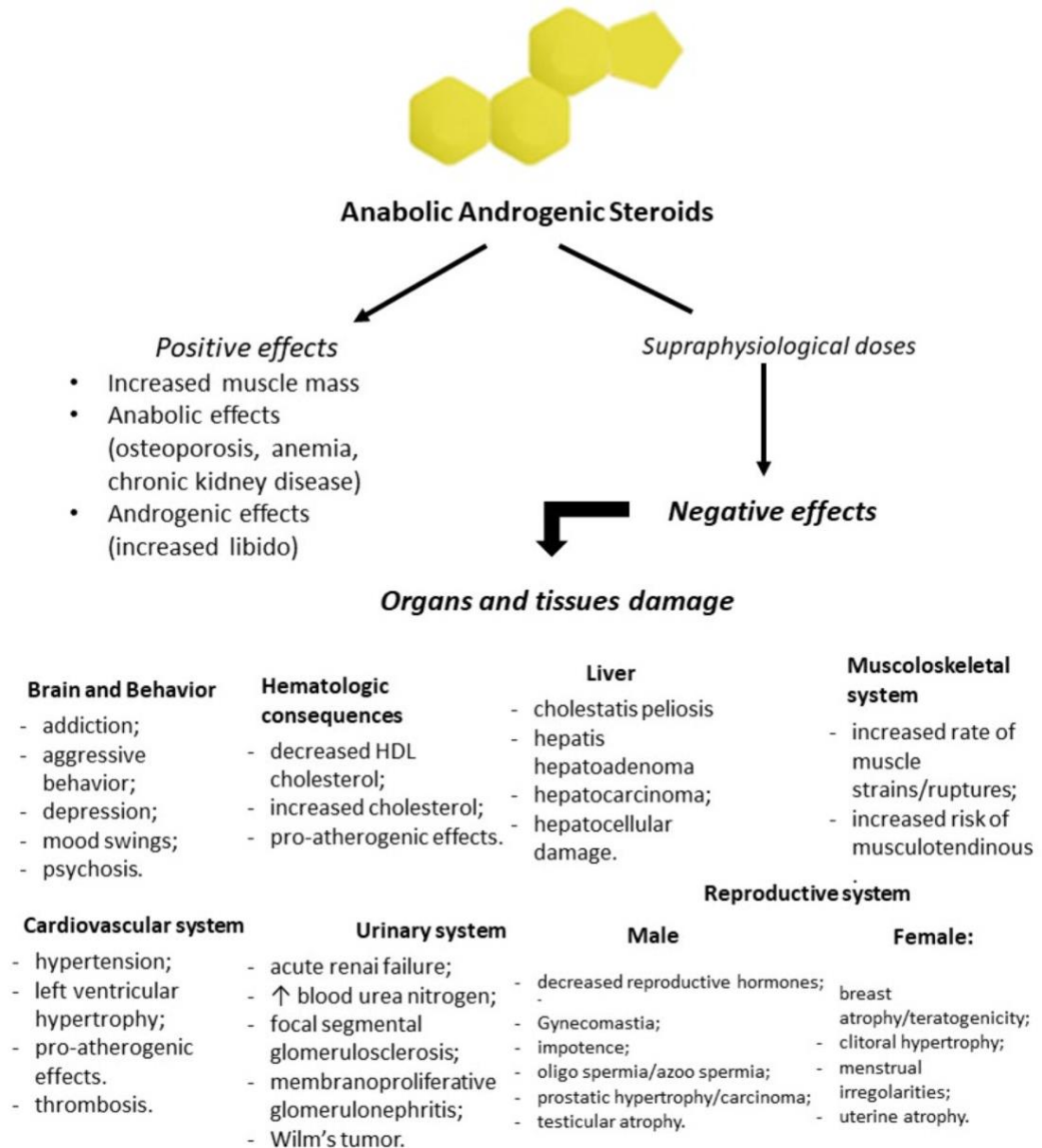


Figure 1. Adverse effects associated with Anabolic Androgenic Steroids

Figure (1) outlines a range of adverse effects associated with AAS. Figure (1) allows us to begin to understand the breadth and diverse nature of the harms associated with AAS. From Figure (1) it is clear that there are a number of harms associated with AAS

and these ought not be ignored. Whether used within recreational sport or the general population, the use of AAS ought to be considered a potential public health threat, as distinct from individuals' motivations or risk-perceptions with respect to usage (which will be considered below).

Whilst the harms associated with doping substances can vary, with genetic predispositions contributing to adverse health effects (Hoffman & Ratmess, 2006), age and gender (Evans-Brown et al., 2009), and being dose dependent (Kimergård & McVeigh, 2014), it is clear that the use of doping substances presents a risk to health (Llewellyn, 2010; Pope et al., 2014; Goldman et al., 2019). Although the WADA (2020) aims to protect doping-free sport and the health of athletes, it is evident that doping continues to persist within sport and more specifically, recreational levels of Welsh rugby (BBC, 2015; Whitaker et al., 2017; UKAD, 2020). As the use of doping substances continue to persist in sport, it is likely that athletes will continue to risk their health and also threaten public health. Notably, however, there are a number of perceived benefits when using doping substances and these should not be overlooked in order to arrive at a balanced evaluation. Within the following section, I briefly present some of the perceived benefits related to the use of AAS and wider doping substances.

2.4.3 Perceived benefits

There is a wealth of evidence that supports a range of perceived benefits related to the use of AAS (Vassallo & Olrich, 2010; Kotzé & Antonopoulos, 2019; Latham, Fraser, Fomiatti, Moore, Sear & Aitken, 2019). It is important to evaluate these perceived benefits when conducting an ethical analysis of policy responses. Without a thorough consideration of all factors, both positive and negative, we risk missing key and insightful details of these behaviours and this would come as a deterrent to the ethical analysis. Within this short section, I briefly examine some of the perceived benefits related to AAS.

Vassallo et al., (2010) reports that AAS users benefited profoundly from a boost of perceived confidence when using AAS. Not only did the study report perceived

benefits, but it also reported an absence of detrimental health outcomes. These factors are important when attempting to establish an ethical response to drug use. Without acknowledging the perceived benefits, our response may overlook what matters for these individuals and fail to respond to these concerns in an appropriate and considerate manner.

In an additional study, Kotzé et al., (2019) reports that perceived benefits are attained in the form of achieving a more aesthetically pleasing body. These benefits are both external and internal. In achieving more muscular physiques, users attain greater perceptions of masculinity and individualism. Latham et al., (2019) also speaks of similar perceived benefits, and suggests AAS users are able to transform their bodies, with AAS use supporting their efforts through training and enhancing recovery. Thus, these accounts paint the use of AAS in a more positive light and we must consider these perceived benefits when we weigh up the various policy responses. It is notable that there is an expanse of literature documenting the harms associated with AAS (Evans-Brown et al., 2009 and Goldman et al., 2019), and this perhaps contributes to the potential demonisation of these substances. Without careful consideration of the perceived benefits and harms, we will fail to grasp the full picture and will be less likely to make meaningful contributions within this ethical analysis.

Due to the significance of the potential health concerns associated with doping like substances and their continued use, I move to explore the need of public health bodies, through harm reduction, to intervene and better protect the health of recreational athletes and the general public.

2.4.4 *Harm reduction*

Within this section, I explore some of the harm reduction strategies established to combat the health risks associated with AAS. Although these initiatives were established for the general population and somewhat contradict with the notion of doping-free sport and ADP, they perhaps better ensure the health of individuals engaging with these risk-taking practices. Below, I detail some of these harm reduction strategies.

Within the UK, a number of initiatives that have been set up to minimize the harms caused by drugs. Most notably, needle and syringe programmes (NSPs). NSPs were first introduced for recreational drug users, however, within some facilities, AAS users have now overtaken recreational drug users who access these facilities (McVeigh et al., 2017). These facilities provide access to clean needles and allow for the safe disposal of used needles. Not only do NSPs provide and dispose of needles, but they also provide some vitally important information to drug users. These interventions are vital to minimize the potential harm of these drugs; however, they require a willingness of users to engage with these services and also focused on injectable AAS. Thus, oral AAS users might be a population overlooked by these harm minimization efforts (van de Ven, Zahnnow, McVeigh & Winstock, 2019). What is more, there are a range of different approaches taken by NSPs across the UK (Kimergård et al., 2014), and this perhaps means some will provide better information and recourses than other NPSs.

A further example of harm reduction strategies is seen through the National Institute for Health Care and Excellence (NICE). The programme is called The Pump Clinic (Specialist Service for Performance and Image Enhancing Drugs), and a description of the service can be seen here:

‘The service is a confidential service / intervention designed to engage with and offer specialist advice and information to users of Performance and Image Enhancing drugs. We offer a basic health screen including Biochemical and Hormonal analysis to help Steroid users to reduce the harm from their drug use. We also offer a full Needle and Syringe Programme with advice on safer injecting, as well as access to confidential Blood Borne Virus testing’ (NICE, 2014).

Once again, these services appear vital in reducing the potential likelihood of harm. If drug users engage with these service and access information and advice concerning the use of these AAS, then these individuals will be more informed about risk-taking practices and perhaps, less likely that users will experience harm. Although these services are designed for the general population and gym users, it is an interesting consideration as to whether harm reduction strategies ought to be extended into

recreational sport. If harm reduction were to be extended into recreational sport, this might better protect the health of recreational athletes and the general public. Whilst harm reduction services function to protect the health of drug users, they can be seen to threaten anti-doping rules, sporting integrity and in some cases, encourage risk-taking practices and encourage problematic norms.

The WADA aims to protect athletes' health (WADA, 2020), however, recreational Welsh rugby players continue to use doping substances (BBC, 2015; Whitaker et al., 2017), and continue to risk their health. Not only do the use of doping substances threaten sporting integrity but doping also threatens public health. Due to the fact that doping is a complex behavior, with a range of socioecological influences encouraging doping substance use (Bates et al., 2019), I argue more ought to be done to protect health. Moreover, existing research outlines that recreational athletes use doping substances without the intention of cheating sport, but for body image (Hanley, Santos & Coomber 2017; Whitaker et al., 2017). Thus, I argue that the WADA ought to consider novel ways to reduce the likelihood of harm and better protect the health of athletes and the general public.

2.5 Aims

Due to the lack of qualitative research examining doping within recreational sport, the apparent struggles associated with the current anti-doping approach and the potential health risks associated with doping, this thesis examines doping in recreational Welsh rugby, an area with high doping prevalence when measured by UKAD sanctions (UKAD, 2020). There are two clear aims within this thesis: (1) explore, understand and examine the doping experiences of recreational Welsh rugby players; (2) ethically consider three policy responses to doping within recreational sport. The three-policy response is adapted from another risk-taking practice; self-harm (i) to prevent it; (ii) to allow it; and (iii) to supervise it (Edwards & Hewitt, 2011). I will present this framework and adapt it to the concern of doping within recreational Welsh rugby. The self-harm framework has been selected due to its sophisticated approach to another ethically challenging risk-taking behavior. The framework considers critical ethical concepts, such as autonomy and paternalism.

The arguments can be analogised and then critically situated within the context of doping within recreational sport. After offering an ethical analysis to each response, I will offer some recommendations constructed through these ethical discussions and interview data.

METHODOLOGY

The purpose of this research investigation was to better understand doping substance use within recreational Welsh rugby and offer an ethical review of three potential policy responses. To first understand the problem, I conducted semi-structured interviews with recreational Welsh rugby players and gym users to better understand the use of doping substances within recreational sport.

To this date, there is limited empirical evidence of doping substance use within competitive recreational sport (Christiansen et al., 2020), and this thesis aimed to shed more light on this area. The research project conducted semi-structured interviews to better understand personal experiences of doping substance use. Here, I explored individual motivations to use doping substances, perceived harms, drug related knowledge (where is this information/knowledge from, are these trusted sources), drug use practices (what drugs are being used/in what quantities/in what form/for how long/where from), and perceptions around the current anti-doping policy.

Due to the broad scope of these discussions, in-depth, semi-structured interviews were conducted with participants, and a thematic analysis was conducted to identify key themes within the data (Guest, MacQueen & Namey, 2011). It is important to note that each individual's experience of drug use is different from the last, and it is the finer details within those responses that hold the insightful information that is required to better understand and respond to those behaviours. Thus, getting as close as I could to these risk-taking practices was vital to ensure I accessed the moral content of the drug use. Chappell (2014) argues that the best way to do ethics is to experience something for yourself, and if you cannot experience it for yourself, you must find the best possible way of doing so. Chappell (2014) writes:

‘If you want to understand what it is like to see red, you need either (and ideally) to see red for yourself, or else to find some way of imaginatively summoning red up. Just likewise, if you want to understand what it is like to be a child or a parent, to hurt or be hurt, to succeed or to fail, to protect or to kill, or to have any of the other paradigm experiences of the moral life, then

you need either to have these experiences for yourself, so as to grasp the phenomenal contents in question directly, or else find a way of getting hold of them by way of the imagination' (Chappell, 2014).

The work of Chappell helped to guide my thinking, both in terms of conducting interviews, the questions I needed to ask and in the defence of conducting interviews. Before I was able to conduct an ethical analysis of policy responses to doping within recreational sport, I first needed to understand these risk-taking practices. To do this, semi-structured interviews were conducted so that I could attain a level of detail required to conduct a good, ethical analysis.

It is important to note that during this research project, both throughout data collection and analysis, I withheld from committing to a particular moral theory. I withheld from committing to a particular theory due to the broad scope of the thesis and notion that it would have taken me away from the moral content of drug use. Over-theorising would have pushed me away from the problem and restricted my ability to conduct a good ethical analysis. Instead, I got close to participants, empathised with them and worked hard to understand their subjective and personal experiences. I wanted to be careful and considerate during data collection and analysis and really get to grips with what was going on in recreational sport. It was important to access the phenomenal content of the problem (Chappell, 2014) and attain a richness within responses. Without rich and insightful details of these risk-taking practices, the moral content of these behaviours would be overlooked, and I would have been less likely to understand these behaviours. Without this level of understanding, I would have been restricted in my ability to conduct a worthwhile ethical analysis.

As a Sport and Exercise Science graduate, I acknowledge that I come from a multi-disciplinary background and as a researcher, I acknowledge that I come from a particular viewpoint. Outside of academia, I am a gym user, work in a gym and I also played rugby until the age of twenty-one. I found these positions useful to engage and relate to these individuals. Over the years, I have acquired a level of knowledge, both academically and informally (through hobbies and passions) that allowed me to discuss more generally around the research area and to better understand what was

going on within these environments. This level of understanding allowed me to discuss more generally with participants, gaining the trust of these individuals and attaining a richness within responses. Nonetheless, I acknowledge the positions I hold and acknowledge that this shapes the research process and impacts the findings of this piece of research - something also identified by Sparkes & Smith (2014), who write, 'professionals are thoroughly inseparable from that which is being studied'.

Developing a rapport with participants was essential to attain a richness and a level of detail required to understand the moral content of doping within recreational sport. I worked hard to empathise and understand these behaviours and ensured that participants felt comfortable throughout the process. Due to the fact that there is limited research of this kind within competitive recreational sport (Christiansen et al., 2020), it was important that I did the participants justice. I spent considerable time during data analysis to present the data as it was described to me. This was important to ensure the data was not misinterpreted and maintained precision and accuracy. The analysis of the data was primarily inductive (Fereday & Muir-Cochrane, 2006) and this meant that the interview data guided the themes throughout the analysis. During the research process, I challenged my own thoughts to ensure that I accessed the moral content of drug use. I made it clear it to participants that I was conducting this piece of research to better understand what is going on and did so with the intention of helping this population. By reiterating the aims and objectives of the research project to the participants, I was able to ensure a level of trust with these individuals and access the finer the details within these personal experiences.

Within the section that follows, I detail and describe the methodology utilised within this research project and highlight the ethical issues I encountered during the process.

3.1 Participants

In total this study interviewed (n=22) participants. Gym users made up (n=9) participants and (n=13) Welsh Rugby Union players took part in this research project. Participants were all male. Rugby players (n=13) played within the Welsh rugby union. Rugby players (n=2) played for semi-professional/championship teams,

and (n=11) played in divisions below this level. No participants were elite athletes. All (n=22) participants were from the South West Wales region. Participants (n=22) were aged between 25 - 40 years old and initiated drug use between the ages of 16 - 27 years old.

The population of recreational level Welsh rugby players was selected due the documented concerns of doping within this specific population (Whitaker et al., 2017; UKAD, 2020). Whilst there is some superficial evidence of doping concerns within recreational Welsh rugby, the evidence is somewhat limited, warranting more careful consideration. Although gym users were recruited as gym users, all of these participants (n=9) were involved in sport outside of the gym. The sports identified by participants, Golf (n=1), MMA (n=2), CrossFit (n=1), Football (n=2) and bodybuilding (n=3).

Gym users were included alongside recreational rugby union players within this investigation partly due to reasons concerning the extant research and partly due to ontological concerns. First, in the literature there are ambiguous definitions concerning how - precisely - a recreational athlete and non-athlete populations should be defined and understood (Christiansen et al., 2020). Moreover, existing evidence supports the claim that both recreational athletes and gym populations use doping substances for body image enhancement (Christiansen et al., 2020; UKAD, 2020). Thus, the boundaries between, or the artificial separation of the two populations, is problematic. While the distinction is analytically clear, in reality there may be overlap or joint membership between the populations. Due to these factors, both gym users and Welsh rugby players were included within this investigation.

3.2 Data Collection

Ethical approval was granted from Swansea University's research ethics committee. Potential interviewees were contacted through a range of personal sources. In my spare time, I attend the gym for fitness and health related reasons, and it is also my workplace. Moreover, until the age of twenty-one, I played rugby for a local rugby club. Utilising these positions, I was able to access a web of existing contacts to

spread word of the research project. Although I am not a user of doping substances, I am incredibly interested in the area and have used a range of permissible nutritional supplements in the past. Thus, I have a level of knowledge that users of doping substances could relate to. My background appeared to facilitate my acceptance within these communities and allowed me to access wider individuals within these environments. By outlining the study details and the aims of this research project, I was better able to distance myself from friendships and maintain a good working relationship as a researcher. To share the details of this study, I utilised a web of contacts. These contacts included friends, gym users, personal trainers, and ex-teammates. Once I had explained the study outline to these contacts, they were able to share the study details with their wider network of contacts. These initial contacts functioned as a bridge between me and the doping users and although I relied heavily of these initial contacts, I made sure that they fully understood what I was trying to do and ensured that they reiterated to any potential participants that their inclusion would be completely anonymous. Once these contacts understood the study details, they were provided with my contact details. To ensure that participation was voluntary and free from coercion, it was left to participants whether they contacted me or not.

In the hope of reaching wider participants, I utilised some of these initial and existing contacts to circulate a message through club teams social media platforms. The messaging platform utilised was 'What's app'. The messaging platform was used to circulate a standardised message within rugby club and team group chats. The standardised message outlined the study details, the aims and the details of research team. The message also stressed the importance of anonymity. Once contact was initiated with potential interviewees, the participants were informed that participation was entirely voluntary, and they would remain completely anonymous throughout the process. Stressing the importance of anonymity was essential as participants did not want any repercussion in relation to anti-doping or reputational damage. Anonymity was reiterated several times to participants throughout the interviews.

The primary source of data collection was conducted through a purposeful sample method (Devers & Frankel, 2000; Emmel, 2013). This method was used due my sporting background, weight training experience and job within a gym. Utilising

existing contacts, a purposeful sampling method appeared to best utilise these positions. As the study progressed, the data collection methods utilised a snowballing sample technique (Noy, 2003). The two sampling techniques complemented each other and allowed me to follow up any additional leads mentioned during the interview process.

When planning data collection, it was decided that both purposeful and snowballing sample techniques would be used instead of being directed by the Welsh Rugby Union (WRU). It is possible that the WRU would have directed me toward clubs with known good practice and players might have been less open and honest within their responses. Moreover, the research team would have had to disclose the WRU's involvement to participants and this would potentially deter participation within the study. By retaining powers within the research process, the research team retained greater autonomy within the data collection process and in doing so, achieved greater objectivity through participant recruitment and data collection. The research team did, however, notify the WRU of the study aims and was granted approval to conduct this research.

After participants granted their approval, semi-structured interviews were conducted. I reiterated the study aims and ensured that the interviewees knew that they were free to withdraw from the study at any point. Before each of the interviews, I made it clear that I wanted to understand doping substance use in its entirety. I reiterated that the more detail and depth the participants could provide, the more meaningful the interview would be. By stressing the importance of detail to participants, it ensured that I attained a greater level of understanding during the interviews.

It is important to note that I withheld from aligning to any particular theoretical framework during this project, as I did not wish to be restricted or led away from drug use and the moral content of these behaviours. Over-theorising through a specific qualitative framework would have meant I became detached from what matters and miss out on rich and insightful details of personal experiences. Not only did I reject assigning to a particular theoretical framework, but I withheld from aligning to a particular moral theory. Again, by allowing myself more flexibility

here, I was able to attain a deeper understanding and achieve more insightful and rich details of the moral content without being restricted to a particular theory.

Instead, the work of Chappell (2014) helped guide and shape my research and thinking. Chappell (2014) details an idea that moves away from one traditional systematic moral theory and details an idea of a wider view, an 'ethical outlook'. Chappell describes the 'ethical outlook' as roomy and generous, without the need of being systematic and rooted to one specific moral theory, such as deontology. This approach does, however, point at the need of being rationally defensible, coherent, sincere, passionate and highlights the importance of engagement and moral reasoning. Chappell (2014) writes,

'ethics is centrally about understanding the distinctive phenomenal contents of life's paradigm experiences and events. Ethics is all about knowing what it's like to be a child or a parent, a friend or a lover, to hurt or be hurt, to succeed or to fail, to sympathise or be sympathised with, to betray or be betrayed, to protect or to kill. So no one who lacks a grip on phenomenal contents like these can hope to understand what ethics is all about; any more than someone who has never experienced the colours can hope to understand what scarlet or sky-blue or canary yellow is all about' (Chappell, 2014).

Above, Chappell explains what it is to do ethics and points towards what truly matters in good ethical understanding. Chappell points out for us to understand what truly matters in a situation or experience; we must first know what it is like. To do this, we must attain the phenomenal content of an experience and only once we begin to understand this phenomenal content, will we be able to comprehend what it is really like for these individuals. Thus, this shaped my decision to conduct semi-structured interviews and get as close to the problem as I could. I decided that if I was going to conduct a good ethical analysis and make worthwhile recommendations within this thesis, I first must understand what is going on in these environments.

Chappell points out for us to best understand a situation, we must experience it and if we cannot experience it, we must find a way that best captures all of the details about that experience. With regards to this research project, this was done through semi-

structured interviews. Semi-structured interviews allowed me to explore experiences with participants and I worked hard to empathise with these individuals. I worked hard at exploring deeper beliefs and pushed participants to gain rich and insightful details of these experiences. As a non-user of doping substances, I cannot truly say what it is like to use doping substances, but the participants included within this study knew subjectively. Thus, to better understand what it is like, I needed to grasp and attain all the phenomenal content from each individual experience. The flexibility permitted within semi-structured interviews allowed me to do this, and the interviews sometimes strayed from the interview schedule. Thoughtful and thorough interviews meant that I was able to attain a richness through these interviews and paint a more detailed account of these subjective experiences. Prior to the interviews, I could not say with any precision what it was like to use doping substances, but the interviews allowed me to explore these subjective experiences and better understand, subjectively, what it is like. Whilst I could have constructed hypothetical scenarios of what it is like to use doping substances within recreational sport, I would have overlooked the insightful details that were only attainable through these interviews or if you had experienced doping substance use for yourself. Thus, the importance of conducting these interviews is clear.

Interviews were semi-structured and included open ended questions (Smith, 1995). The openness allowed me to follow interesting responses and allowed me the flexibility to question areas outside of the main research focus. This flexibility was essential to attain a deeper understanding of what was going on and explore why participants were doing what they were doing. Without the flexibility of semi-structured interviews, the findings would have been restricted, and our understanding would have been limited. The open nature of the interviews was something that was considered incredibly important throughout this process and although this sometimes-meant interviews lasted over 2 hours, it meant that I was able to attain a depth of understanding that would not have been possible without this method.

Interviews were conducted in a range of locations and via different methods. Interviews were conducted face-to-face, over Skype and a number were conducted over the phone. Participants were given the option which method they would like the interview to take place and a large number of participants opted for interviews over

the phone and this appeared to be related to anonymity concerns. Some participants expressed that conducting an interview over the phone meant that they had extra ownership over their identity. Phone interviews meant that no visual contact was made with participants and this appeared to ease concerns around anonymity and better ensure participants would not receive any anti-doping repercussion. Moreover, some participants expressed concerns around employment. For this reason, phone interviews allowed participants some satisfaction around anonymity and the belief that they would not face repercussion in their workplace. Interviews were conducted one-on-one and were voice recorded for later transcription. I decided that one-to-one interviews were the best option so that I could approach sensitive topics without the worry of causing embarrassment or distress to the participants. Being one-to-one with participants allowed me to fully engage with these individuals and allowed me to explore deeper, subjective experience at length. Utilising my sporting background, I was able to connect with these individuals and explore a deeper level of understanding. Although the interviews sometimes appeared like a general conversation, this was when the participants were at their most comfortable and when they truly opened up and revealed the moral content of their experiences. During interviews over the phone, I made notes throughout the interview process, but during face-to-face interviews, I withheld from doing so. I wanted to ensure participants were comfortable and I felt that note taking could take away from this. Interviews lasted between 27 and 134 minutes and the mean length of the interviews was 48 minutes. Once the study and its formalities had been explained to the participants, the interviews were recorded on voice recording devices. Participants were made aware of this and granted their consent (written or oral or both). After the interviews had been recorded, I transcribed the interviews onto Microsoft Word documents. Each transcription was saved as a separate Word document. In total, 80,000 words of interview transcripts were recorded. To ensure methodological rigour, Dr Andrew Bloodworth (first supervisor) ensured the recordings and transcriptions were accurate.

3.3 Data Analysis

Raw data from interview transcripts were uploaded to NVivo 12 and a thematic analysis was conducted. Key themes emerged from the data and this was done via an

inductive method of coding. This meant that themes and codes emerged during the analysis of the data. The inductive method of coding allowed the data to lead the analysis and better maintain an objective approach within this process. Through coding, different themes and patterns emerged from the data, and created separate categories for each of these themes. Themes related to different drug use characteristics (source of drugs and information, drug use practices (cycle length, duration, quantities. Etc.), perceived harms (physical and psychological), perceived risk, knowledge, motivations for drug use and perceptions of anti-doping policy and practice. Through coding, it was simple to compare patterns, similarities and differences and identify the most problematic cases within the data. Coding allowed the data to be broken down from the lengthily interview transcripts, into more manageable sections of text. Themes were given different headings, through a singular title or label (e.g. motivation), grouping together and creating an archive of responses. This allowed for a deeper analysis of the interview data and a more thorough comparison of participant responses.

Within each interview participants' response represented a subjective account of their personal experiences and judgements, the inductive method of coding allowed the analysis a suitably objective framework. Although there is some friction identifying common themes within subjective accounts of doping experiences, coding allowed for comparisons between these responses and permitted a better understanding of these personal experiences. Coding allowed me to analyse the data by comparing similarities and differences, identifying patterns and improving what I knew about these subjective experiences. Whilst there is great importance understanding each individual account, my recommendations are intended for recreational athletes more generally. Thus, there is great importance attaining a broader account of drug use, grouping together themes and identifying problematic aspects within the data. Without the process of coding, I would have been lost in the volume of data and I would have failed to grasp the morally significant aspects of participant responses.

The analysis of data was particularly important as I needed to better understand what doping was like, so that I could make informed policy recommendations. Without the knowledge and understanding of what doping was actually like for the participants, it

would have been easy to overlook what mattered to them, and thus rendered a sound ethical analysis less valid.

During data analysis, I was aware how my position as a researcher was shaped by perceptions, preferences and experiences presented to me and how these different factors influence my position. I was also aware how participants perceptions of their lived reality differed to that of mine, and how particular (perhaps unique) experiences, preferences and perceptions presented to them, shaped their own reality. Thus, the qualitative method of reflexivity ought to be noted here. The process of reflexivity as Parahoo, (2006) describes, notes how as a researcher, we should continually reflect on our personal values and preconceptions and also those of the participant under observation. It was important to recognise how our position can affect the interpretation of responses and to note that as researchers, we make up part of the world under study. Thus, to continually reflect of our position is important. Moreover, I challenged my own beliefs and was aware how my own situatedness influenced my own narrative and analysis.

In an attempt to further objectivise the analysis of the data, Dr Andrew Bloodworth (1st supervisor), engaged independently of me in a review of the data and themes. Dr Bloodworth was able to challenge my primary analysis of the data and we were able to compare and discuss the salience of given themes and also more specific points in the data. The aim of the interviews was to better understand subjective accounts of drug use, so that I could make more informed arguments. Thus, it was important to recognise and challenge my own thoughts and values and to remain as objective as possible throughout this process. Next, I consider the ethical implications of this investigation.

3.4 Ethical considerations

During the research process, several ethical implications were noted and thus require further detail in this section. This short section details these ethical implications and provides a roadmap of solutions that I utilised to overcome these ethical concerns.

The research design and aims of the study were submitted to Swansea University via an ethics application to Swansea University Ethics Committee. Participants granted consent via written communication prior to the interviews taking place. This included informed consent and assent. It was noted that a number of participants (6/22) failed to communicate written consent and thus gave oral consent and assent prior to the interviews commencing. Oral communication was documented, recorded and stored to ensure methodological rigour. Participants in this study were between the ages (25 - 40) and were able to grant consent, however, studies including adolescents or vulnerable participants would require an appropriate person to do so, such as a parent or guardian. Prior to the interviews, participants were notified that they could withdraw from the study at any point in time. If participants felt uncomfortable during any stage in the interview, they were made aware that they had no obligations to finish the interview and could withdraw at any point. Participants were also made aware of appropriate support agencies if they required support, advice or guidance after the interviews had taken place.

3.5.1 Confidentiality and anonymity

Prior to the research commencing, participants were made aware that all identifiable characteristics obtained during the research and data collection process would be removed. By removing all identifiable characteristics from the data, this ensured that participants remained anonymous throughout the research process. Moreover, researchers did not request the names of participants during the interviews as this ensured a layer of confidentiality and anonymity for all participants. All participants were also informed prior to the research commencing that the data being collected could be published in scientific journals. Although this raised some concerns, I reiterated that all identifiable characteristics would be removed, and anonymity and confidentiality would be respected.

Once participants had been identified, information sheets were provided, and participants were given a choice as to whether they wished to participate any further. Information sheets clearly detailed the outline of the research study and ensured that potential participants were fully aware of the study and the purpose of their inclusion. Researchers reiterated to participants that their inclusion within the study

was entirely voluntary. This ensured that participation was free from potential coercion during the recruitment process. Upon making contact with potential participants, I ensured these participants were under no obligation to participate within the study. Once I made initial contact with these individuals and they had my contact details, I withheld from approaching these individuals any further. By ensuring that I did not pursue these individuals any further, I avoided potential feelings of coercion during the recruitment stage of this study.

The interviews were recorded on voice tape devices and raw data was then transferred to laptops and later deleted from these recording devices. The research team removed the original data from the recording devices to ensure participant anonymity and confidentiality was maintained. Laptops were password protected and locked away in a filing cabinet during times of non-use. The filing cabinet belonged to Dr Bloodworth (project supervisor), and only the research team named upon the ethics application had access to this raw data. By maintaining high standards during the handling of data, researchers ensured that the anonymity and confidentiality of participants included within this research project were respected.

A final consideration made sure that suitable locations for interviews were selected during the data collection. Suitable locations were essential to ensure participant' anonymity and confidentiality. It is reasonable to suggest that a poorly chosen interview location might compromise participant anonymity due to the possibility of being spotted, interrupted or overheard by the general public. Take the example of an interview being conducted in a busy café, if the interview was conducted in this type of environment, the researchers would potentially risk exposing participants to the wider population and threaten confidentiality and anonymity. Thus, interviews were conducted in a suitably chosen location which limited any chance of interruption and disturbance. The location of the interviews ensured privacy for the participants and helped maintain basic ethical principles. I also offered participants the option for the interview to be conducted over Skype or phone. Both of these options allowed participants the flexibility to choose a suitable location for themselves and limited the possibility of breaching confidentiality and anonymity.

Having discussed ways in which ethical principles can be safeguarded, the next section will consider the potential justifications for when ethical principles ought to be overridden.

3.5.2 Breaching ethical principles; Justification & pressures

During this research project, basic ethical principles such as confidentiality and anonymity were respected to maintain ethical standards throughout the research. Notably, however, there are cases within research that these ethical principles ought to be breached. This short section examines these circumstances and points towards the possible justifications for breaching ethical principles.

The first possible justification of breaching ethical principles takes note of systematic doping in sport. It is possible that the research team could have uncovered systematic doping at a rugby club. If doping of this nature was uncovered, researchers would have an obligation to ensure participant anonymity and confidentiality, but also have a moral obligation to notify anti-doping authorities if such widespread and systematic doping was uncovered. If such accounts were detailed within the interviews, I would pass on this information to the lead supervisor Dr Bloodworth. Dr Bloodworth would then make an informed decision as to whether this information is taken any further. Dr Bloodworth may choose to consult with second supervisor, Prof Mike McNamee, who together would make a decision as to whether to notify the WRU or ADOs. In such circumstances, it could be decided that a more general account of the information would be passed on, but specific information detailing individuals would be removed. This would potentially navigate anonymity issues but inform the relevant governing bodies of systematic doping scenarios. Although this was a genuine concern for the research team, we did not uncover any systematic doping during the interviews.

A second possible justification for breaching ethical principles such as confidentiality and anonymity considers breaches of criminal law. Due to the nature of the research project, it was possible that individuals might be discovered to be in breach of the law. Thus, the research team would have to consider breaching participant confidentiality and anonymity to bring the appropriate individuals to

justice. During data collection and data analysis, if participants exposed incriminating behaviours which are prosecutable within the court of law, researchers ought to report such acts to the relevant authorities. Whether these admissions expose personal accounts or wider networks of criminality, such as the dealing, transportation or the manufacturing of drugs, participant confidentiality and anonymity ought to be breached. If researchers came across such evidence, lead supervisor (Dr Bloodworth) would be notified. Dr Bloodworth would then assess all the available evidence and determine whether or not, a law has been broken and whether this information ought to be taken any further. If Dr Bloodworth were to establish that a law had been broken, he might pursue a second opinion from Swansea University's ethics committee before the relevant authorities are notified and the evidence is passed on for a professional assessment to be made. By ensuring the correct channels are followed, the research team would be assured that any breaches of participant confidentiality and anonymity would be justified. Within the current investigation, no acts of criminality were uncovered. Thus, this potential issue was not a problem within this investigation.

A further ethical consideration was the possibility of uncovering health concerns associated with use of doping substances. If it was discovered that participants were harming themselves whilst using doping substances, the research team must consider whether they should breach confidentiality and anonymity to protect these individuals from serious harm. Researchers ought to act with the best interests of participants in mind but also respect the fact that these individuals are adults and are acting autonomously. Thus, we provided participants with the relevant support networks and contact details and ensured that these individuals were supported in the best way possible.

In a final consideration, it was noted that the research team could face accusations from athletes, athlete support personnel and the public, regarding the possible obstruction of anti-doping rules. Within this study, researchers had information regarding doping cases but withheld this information from governing bodies and anti-doping authorities to protect participant confidentiality and anonymity. If researchers revealed the details of this information to governing bodies, anti-doping sanctions may well be brought to these individuals. Accordingly, the research team

might be exposed to pressure by withholding personal information and face accusations of covering up and conspiring with cheating athletes. To navigate these pressures, it was important for the research team to maintain its standards and uphold ethical principles. The research team adhered to research guidelines and maintained a sound ethical and scientific investigation. Moreover, researchers provided information sheets of the study aims and objectives to those concerned. These information sheets provided a detailed account of the purpose of the study. By raising awareness, these potential pressures were overcome. It was also notable that none of the research team held a position or were contracted to a sports club and this did away with complicity concerns.

Having presented the methodology used within this investigation, I move on to chapter 4 and present some of the key themes and results from the interviews conducted with Welsh rugby players.

RESULTS

In this section, I present the data from the interviews. The data has been broken down into key themes which surfaced throughout the interviews and are most influential to the later policy discussions. Here, I will establish key themes and include some interview quotations from the transcripts.

One of the aims of this research study was to better understand doping within recreational levels of Welsh rugby. I argue that until we understand what is going on in these environments, we will be less likely to respond in appropriate and meaningful ways. In the sections that follows, I explore and examine these risk-taking practices.

For the purpose of understanding and clarity, it should be noted that participant(s) 1-13, quoted throughout this thesis, are recreational Welsh rugby players. The remaining participant(s) 14-22, are gym users and recreational athletes.

Participants

In total, (n=22) Participants were included within this investigation. Out of 22 participants, 13 were recreational Welsh rugby players, with 2 of the 13 playing for Welsh Championship teams (tier 3 of Welsh rugby), and 11 out of 13 playing below this level. The remaining 9 participants were gym users. Although recruited as gym users, these participants competed in a range of recreational sport. The sports identified by participants were: Golf (n=1); MMA (n=2); CrossFit (n=1); Football (n=2); and bodybuilding (n=3). All 22 participants were male and from the South West Wales region in the UK. The mean age of participants was 29 years old. The youngest participant(s) was 25 and the eldest participant was 40 years old.

Onset of Drug use

The age of doping substance initiation varied between participants. The mean age of drug onset was 21 years of age, the youngest being 16 years of age and the eldest being 27 years of age. According to the WADA Code, a minor is a natural person who had not yet reached 18 years old (WADA, 2020). The fact that individuals considered as minors are using doping substances within recreational sport is morally problematic.

Doping substances reported by participants

During the interviews, participants outlined the use of a number of different doping substances. The most popular substances reported within this study were AAS. Some participants reported the use of multiple substances, whereas others reported only using one substance. Within this section, I will present all of the doping substances detailed during the interviews. These drugs are separated under anabolic androgenic steroids, growth hormone, testosterone/pro-hormones, fat loss agents, anti-estrogens, testosterone stimulating drugs and others (Llewellyn, 2010).

Anabolic Androgenic Steroids: Testosterone, Masteron, Equipoise, Propionate, Cypionate, Enanthate, Anavar, Winstrol, Dianabol, Clenbutrol, Deca Durabolin, Sustanon 250, Tren propionate, Tren Acetate.

Growth Hormone: Human Growth Hormone (HGH)

Testosterone Boosters and Pro-hormones: Animal Stack and SD-Matrix were the brands/products outlined.

Fat Loss Agents: T3's, T4's and ephedrine.

Anti-Estrogens: Nolvadex, Clomid, Aromatase inhibitor.

Testosterone Stimulating Drugs: Human Chorionic Gonadotrophin (HCG)

Other drugs: One participant reported the use of the drug Gamma-Hydroxybutyrate (GHB).

4.1 Motivations to use doping substances

Participants' motivations to use doping substances often shifted overtime and more often than not, included more than one motivation. It was also apparent that the motivations to use doping substances were heavily influenced by a range of external factors. These external factors helped shape perceptions and beliefs and were intertwined with these primary motivations. Below, I present some of the responses giving during the interviews:

‘At first it was a typical 18-year-old lad getting ready to go on the boys holidays, to look good, that was when I first used, I am not too scared to say that, but as I’ve got older and you age, your metabolism slows down and it becomes harder to keep the fat off. It isn’t as easy to keep away from the bad food and that shows, so in more recent times when I have used, it is more about keeping my body in shape and keeping my body healthy’ (P.10).

‘This is just to cut weight and get leaner, cut fat was the main aim. When I used those, it was purely to look good, it wasn’t really rugby related, just to cut up for holidays and stuff like that but I was playing a lot of rugby at the time’ (P.7).

‘Yeh, so size came first, I just wanted to get bigger and then it was the image, that tended to coincide with the summer, I wanted to get down the beach and look good. When I was growing up, I was very skinny, and I went through a stage of eating a lot and training which did start to make me put on weight. When I took it I didn’t really want it to be noticeable, I remember at the time of taking it that I didn’t want people to notice - you see people walking around now and you can tell straight away that they are using stuff - the stuff I was taking wasn’t to make me look like a steroid head, it was like I train hard, I play rugby, it made me look more muscular but natural’ (...) ‘Friends, people that I knew, started with other gym friends, I remember in the gym that I was training in at the time, there were about 3 or 4 men in their early 30’s - late 20’s, I was probably 16, and I became friendly with them and at that time I had started to get bigger anyway but we started chatting, became

more friendly and then they starting to put trust in you and you trust them and you started to talk about what they were taking and you just fall into the trap of I'll just do the same thing. I was young at the time and you look at people and they are bigger and older, and they've got their little click and I just felt like I wanted to be part of it, I thought I'd try it and see whether they were any good' (P.5).

'Yeh, it really was. My confidence was terrible, really bad. I would think people were talking about me, laughing and making jokes, it wasn't nice. I didn't know 100% for sure if people were making fun but in my head, I thought they were. It wasn't easy. When my mates started going out to town or for a night out, I would never go, I would never go to town. I didn't really go out until my 18th birthday; I wasn't interested because I had no confidence whatsoever. I was always thinking about what other people thought of me, what they might say, it wasn't a good time' (...) 'at that age you start going on boys holiday's and stuff like that, you start going away, Magaluf places like that, you don't want to be going there overweight - at that age you don't want to be overweight, standing next to friends and on rugby tours, confidence really takes a hit' (P.9).

'I used them to put on size and get bigger, I thought they would get me to look good, help me get noticed more and help me fit into social groups, I was probably trying to bridge insecurities that I had with myself and I saw them as a quick fix solution to problems I had with myself' (P.4).

'I started using because I got a job as a doorman, that's how I started using them, I felt that needed to have a step above everybody else and everyone who was out drinking. Everyone else I was working with was using steroids so that also influenced me, I wouldn't call it peer pressure because I wanted to do it myself, but I think I wasn't around it then I wouldn't have ended up doing it. I felt like I needed to use steroids at the time, I felt like I needed to compensate for a lack of skill in the job I was doing I guess, if I was black belt in judo I wouldn't have thought about it, but I wasn't, so I thought the bigger and stronger I am, the safer I'll be type of thing' (P.8)

Personal motivations to use doping substances included: Body image, body dissatisfaction, self-consciousness, to get bigger, to put on weight, to put on size, vanity, to look good, aesthetics, to increase muscularity, to get stronger, sexual appeal to women, summer holidays, injuries, general health and longevity, curiosity, taken body as far as possible naturally, recovery, social recognition, moral permissibility, social status and sports performance, to get bigger, faster and stronger. The use of doping substances for performance enhancement was outlined by a very small number of participants and interestingly, these participants played or had ambitions of playing a higher level of rugby.

Environmental factors to use doping substances included: gymnasiums; rugby changing rooms; university; and professions or hobbies (doormen, bodybuilder). Doping substances use was considered widespread throughout these environments, often normalised and considered morally permissible. These beliefs provided the motivation or influence for some participants to use doping substances and some noted that it was a matter of keeping up with others. Other than the perception that drug use was widespread within gyms and in rugby, one participant outlined that age-related factors influenced his decision to dope. At 16 years old and training in gymnasiums with older males who were also using doping substances, this participant felt like he was impressionable at a younger age and he wanted to feel a part of something. Moreover, one participant perceived his duties as a doorman required him to use these substances and another participant perceived that if he wanted to progress as a bodybuilder, he needed to use doping substances to do so.

The motivations to use doping substances were broad and participants often included more than one motivation to use these substances. Although a small number of participants reported the use of the drugs for performance enhancement, in the main, the use of these substances was related to motivations associated to body image concerns. It is also important to note that motivations to use doping substances sometimes shifted overtime, and this is an important factor in understanding this risk-taking practice.

In the following theme, I present some of the drug related risk-taking practices that perhaps contribute to harm.

4.2 Risk-taking practices

Within this short section, I present some of the risk-taking practices that possibly contribute to perceived harms detailed and experienced by recreational athletes.

4.2.1 Mode of Drug administration

During the interviews it is clear that drug users could use oral or injectable substances, or both. Within this short section, I outline these modes of drug administration and the numbers of participants that utilise these modes of administration.

‘Yeh, I would never have never used syringe and needle because I don’t think it is heathy - I did a lot of research before even starting it and I knew that using a needle to penetrate your skin could be dangerous and if there was an air bubble in what you were taking, you could be a lot worse off than if you were taking the steroids through tablet form’ (P.10).

‘I don’t like needles, yeah, I simply don’t like needles. I also thought that if you are injecting stuff into you then that’s definitely cheating and is wrong, it just feels more wrong. If I had a steroid tablet and a steroid injectables I’d look that two very differently even if they are the same thing. If you are injecting stuff into your body I see it as more extreme than taking a simple tablet and swallowing it. With injections you are taking a needle and sticking it into your body and directly putting into your system, whereas, taking steroid tablets just feels like you are taking a supplement almost, so mentally taking a tablet or drinking some powder doesn’t feel like you are doing anything wrong because it’s going down orally but when you inject directly, well it’s a bit extreme. They were just tablets, I have vitamin tablets, it was just another tablet, tablet form is fine’ (P.3).

‘Taking tablets was just a lot easier to do, I didn’t want to inject, I think there was more risk if I was to inject, infections and things like that. I didn’t really know what I was doing, so I think if I went into injectables I could have experienced some problems. To be honest, the idea scared me. To inject, it’s a bit serious. Just taking a tablet, I know it might have been worse on the kidneys, but you weren’t going to get infections or have to think about injecting yourself and possibly fucking it up. I think injecting yourself, there’s stigma around it, it isn’t a nice thought, whereas taking a few tablets each day, it isn’t too bad, is it? I know injecting might be better for you if you get it right, but that wasn’t something I was willing to do’ (P.12).

‘When I got to that point of first jabbing, I was aware of so many people who were doing it and had been doing it for so long, and I knew have had no adverse health effects, that I was already starting to doubt how bad these things were for you’ (P.13).

In terms of drug mode administration, (n=10) participants (45.46%) reported only using oral AAS, (n=11) participants reported using both oral and injectables AAS (50%), and (n=1) participant reported using only injectables (4.54%). Participants who used both oral and injectable AAS often began with one mode of administration and then included the other. Out of the (n=11) participants who used both oral and injectable AAS, (n=8) participants (72.73%) began with the oral administration of AAS. Out of the remaining (n=3) participants (27.27%), (n=1) participant (9.09%) began with a stack (the use of multiple substances in combination with one another) of both oral and injectable AAS and (n=2) participants (18.18%) began with injectables and later moved to include oral AAS.

Whilst no needle sharing was reported within the current investigation, group injecting practices were identified. Group injecting practices meant that some users of doping substances had friends or other users inject doping substances for them. Whilst these individuals outlined that they did not share needles, there remains a potential risk to the health of these users. Below, I present an account from an oral user of doping substances:

‘It was just a personal choice, using needles is just something I wouldn’t like to do. The fact of sticking a needle into yourself doesn’t sound great, does it? And, it is just easier to take a tablet. You don’t think about it, you just put it in your mouth and swallow. It is little hassle’ (P.21).

The mode of drug administration is associated with a range of different health risks and it is important to consider this point within our understanding of harm. A number of participants were led away from injecting due to the perceptions and stigma associated with injecting. These choices were not made through supported scientific evidence, but rather personal choice and preference. Moreover, oral ingestion of doping substances appeared straight forward and less hassle for some individuals, with others suggesting oral ingestion was a far less serious than injecting. This sheds light on these risk-taking practices and outlines why some users select one mode of drug administration over another. If we are better able to determine why the oral ingestion of doping substances are selected over injectables, then perhaps we can make more meaningful recommendations to users, public health and sports organisations.

4.2.2 Source of doping substances and trust

Participants reported acquiring drugs from a number of different sources. Within the section, I outline these sources and point towards some of the reasons why users said they utilised and trusted one particular source over another.

‘Friends of friends but loosely connected through the gym - to be honest I could have taken rat poison for all I knew - that wasn’t through rugby mates, they were outside of that circle. Those lads had taken stuff previously and I knew that, you hear that so and so has taken this, testosterone or something like that, they had good results from it - I considered that pretty trusted, but like I say, it could have been baking powder for all I knew, but you trust those guys, to be honest I didn’t really give it a second thought - I knew them, they looked good, I knew they were using and I wanted some of it - it was as simple as that’ (P.11).

‘Through a supplier, not online. Just someone I knew, it was another gym user who I had known for a long, long time and I had obviously seen him training and hitting a level that I wanted to get to’ (P.2).

‘Yeah, I would trust the guy who was 20 stone and veins popping out everywhere, I think I listened to a lot of people who I probably shouldn’t have when you first start but, but you don’t know any different’ (P.8).

‘I trust the quality of stuff I buy online, but it’s hard to trust someone that you haven’t ever met before. I’m not randomly searching for them, I go to specific forums that forms almost a club like system, I buy from the same source, the same stocklist, I don’t know that person, but they have a reputation on these sites’ (P.13)

Sources of drugs included local suppliers within gyms or who were loosely connected via friends. Other sources included, websites, online forums, supplement shops and rugby changing rooms. Recreational athletes appeared to do little in the way of quality checking these substances and this points to a potential health threat. Alongside the source of doping substances, participants outlined why they choose one source of drugs over another. Attaining doping substances from local suppliers meant that users could speak face-to-face with dealers, offering reassurance and convenience. Moreover, muscular gym users/dealers also provided reassurance that these substances worked and ought to be trusted.

4.2.3 Information and knowledge

Within the current investigation, a number of Welsh rugby players were willing to listen and seek advice from to gym users. Welsh rugby players would not question this information, taking it as fact and were drawn towards more muscular gym users for information and advice. This is worrying when we consider the health risks associated with the use of some doping substances. Within the following section, I evidence these information sources:

‘I never spoke to any professional about it, it was just the people I trained with in gyms, I think I might have read a little bit about it online, but we are talking a little bit. Gym friends were my main source of information’ (P.5).

‘I spoke with friends mainly, one of the boys was keener on it and he did most of the reading and research on it. I think he was the one who probably pushed it the most. There were a few of us who decided to take it, a group of 3 or 4, we were close friends, but one of the boys did the main research into it’ (...) ‘Yeah, to some extent I obviously did, but I think at that age you think you are bullet proof, it wasn’t something I would have thought about for long, you just don’t think anything bad would happen to you. Now, I am much more careful with things I do and that’s in general life. You know, when you are younger you are more stupid, you don’t tend to weigh things up, pro’s and con’s, you only look to the pro’s, that’s how your brain works then’ (P.18).

As highlighted above, there was a feeling that negative health events would not occur to the individual and this was commonplace throughout the interview responses. Participants appeared to acknowledge some of the health risks associated with doping but failed to perceive them to be a real threat to themselves. This relaxed attitude meant that some users were less inclined to commit to thorough research on doping substances and appeared more willing to seek bite size pieces of information from friends and gym users. Although the credibility of this information appears questionable, recreational athletes demonstrated a willingness to listen and adhere to this advice. Relying on dubious sources of information is problematic when we consider the potential health concerns associated with doping and this perhaps sheds light on some of the perceived harms experienced by recreational athletes. Some participants appeared very thorough in their reading and research and others appeared to do very little at all. This appeared to relate to how committed an individual was to the use of the substances and their goals. Rugby players often relied on the advice of gym users and gymnasiums provided a location whereby information and advice were passed between populations (rugby player and gym users). Very few participants attained information from what would be considered as more credible sources, and trust was placed in gym users who were more muscular.

Muscularity appeared to reinforce the credibility of the information individuals provided and information and advice was often shared openly by these individuals within gymnasiums.

4.2.4 *Polypharmacy*

The combination of different drugs is also known as polypharmacy and there are a range of health concerns associated to polypharmacy. Evidence of polypharmacy by recreational athletes can be seen below:

‘Currently I’m taking HGH, Clenbuterol and T-4s’ (P.7)

‘When I started, I was using Testosterone and Decca, Sustanon 250 or an Enanthate 250, with a D-bol’ (...) ‘I’m very hot on my PCT, my post cycle treatment. That will consist of Clomid and HCG’ (...) ‘When I was dieting, I’d use 8 weeks of Tren Propionate, a Tren Acetate and a Winstrol’ (...) ‘I would sometimes do a Clenbutrol with it and I’d take Arimidex’ (P.9).

The use of multiple drugs was commonplace amongst the study population and these individuals appeared to overlook any potential interactions between the simultaneous use of different substances. Whilst polypharmacy is risky enough, a number of recreational athletes were using doping substances before summer holidays or to look good on nights out. If these individuals are consuming alcohol or recreational drugs in combination with doping substances, then this would only exaggerate any potential health risks.

4.2.5 *Substances, quantities and duration*

During the interviews, participants outlined the use of doping substances in different quantities and over different durations. Within the following section, I present some of this evidence and outline how this perhaps contributes to harm. One recreational Welsh rugby player outlines:

‘When I started 2ml Sustanon, so about 500mg of testosterone each week and then after that, my dosages went up to, and this is going to sound crazy, but I

took about 4ml of Sustanon, so about 1000mg of testosterone each week. I think that was my highest dose, possibly around 6ml' (...) 'People would normally start on around 500mg dose of testosterone but the more you get into it, the more you need I suppose, your body become use to it' (P.6).

With regards to Sustanon, Llewellyn, (2010) outlines that individuals typically use doses between 250 - 750mg every 7 to 10 days. Although participant (6) begins AAS use within these dose ranges, his dosages increase up to 1500mg per week. The evidence of risk-taking practices amongst recreational athletes is concerning and perhaps sheds some light of the perceived harms detailed by athletes during this investigation.

Whilst some athletes engage in polypharmacy which possibly contributes to harm, a number of participants used doping substances for an extended period of time and beyond typically expected durations. Evidence of these risk-taking practices are detailed below:

'I used them from about 2 years and then stopped in September (2018). I used them all the way through that period with stopping' (P.1).

'I stayed on steroids for the whole year, I haven't given myself a rest, I was trying something different, I was trying to take little small amounts, not just of testosterone, I was taking a few other things which are pretty toxic but I was thinking if I take it in a smaller amount, micro-dosing, it wouldn't make any damage, it didn't make any damage but it did impact on my blood and I've tried it and I'll never do it again' (P.16).

Evidently, the use of doing substances over an extended period of time exposes individuals to a greater array of risks and this ought to be considered within harm reduction strategies. Some individuals appeared to experiment with substances in pursuit of improved body image and others were concerned with the potential of muscle loss when discontinuing these substances.

4.3 Perceived harms

Although I focus primarily on the harms associated with AAS within the section, several different substances were used by the participants. Thus, I cannot say with any precision whether the perceived harms detailed by athletes was inflicted by AAS or other compounds. Nonetheless, AAS were the most commonly used doping substance within this investigation. Within the following section, I present some of these health concerns highlighted during the interviews.

4.3.1 *Physical Harms*

Recreational athletes reported a number of physical harms that ranged in terms of nature and severity. Here, I present some of these physical harms.

‘Also, towards the end of the cycle, when I was injecting, I built up a lot of scar tissue under my skin on my deltoid. So, when I was injecting, the needle wasn’t penetrating the skin, it became quite painful to inject, I would have to force it in, it really was an unpleasant experience. I really would have to force the needle through the skin, to break through the scar tissue and reach the muscle. Even with a sharp needle, even with quite a bit of force, I was struggling to break through the scar tissue. I’m not sure what I had done, maybe the area wasn’t suitable anymore, I think I had penetrated it so many times that the scar tissue had built up too much. Because I had that episode with my glute, I was too scared to put it in there, to be honest, that is why I stopped. I still have some oil left to inject, I didn’t finish the cycle, I finished it early because I couldn’t bear the thought of forcing the needle through the skin. There was quite a lot of bleeding when I took the needle out, I think my deltoid muscle became quite sensitive and as I was pushing the needle through, my deltoid muscle was jumping, it was as if I was hitting a nerve, it was a really unpleasant feeling’ (...) ‘I had quite bad achene on my back, all across my shoulders and my back, I didn’t like that, that really wasn’t nice’ (P.19).

‘I had a little bit of Gyno [gynecomastia - males breast tissue growth]’ (...) ‘I ended up having an arm infection once’ (P.2).

Above, I have presented some of the physical harms associated with AAS and reported during the interviews. Next, I present some of the psychological harms reported by participants during the interviews.

4.3.2 *Psychological Harms*

A number of psychological harms have been noted within the academic literature and below, I present some of the psychological harms experienced by the participants included within this investigation:

‘After you come off the cycle of steroids, you miss that elevated energy, and you miss that elevated confidence. You don’t feel the same when you come off, you constantly think that you are getting smaller, you start to think that you aren’t as good as you were, you start to think that you are not the same person as you were, and it pushes you towards going back on steroids. It really can mess with your head, it really can seriously mess your head’ (...)

‘When you use them [anabolic steroids] you grow so much faster, you feel so much better, but let me tell you, when you come off, depression kicks in, anxiety starts, insomnia, you can go to some real low and dark places’ (...)

‘when I added more testosterone through steroids, the aggression was incredible, I can’t describe it’ (...) ‘I had a problem with GHB, that came from the gym, someone told me about it and told me that it could help my sleeping. It’s used by body builders, well it can actually be used as a date rape drug but bodybuilders use it because it releases growth hormone during the night, and I started using that because one of the guys in the gym told me that it would help me get to sleep, but I then started using it when I went out partying and I then started using it all of the time, that got on top of me and that caused a lot of big problems in my life. GHB caused me to lose consciousness and I’d be found unconscious everywhere and that really upset my mum more than anything. One thing leads to another and it was a vicious cycle. You take something to get going, you take something to bring you back down, it’s a constant battle that troubles you both mentally and physically’ (P.6).

‘When I was using [anabolic steroids], I was a lot more aggressive, but I wouldn’t realise that until I stopped using [anabolic steroids], I just didn’t notice at the time. I wasn’t aware of the fact that I was more aggressive, I was sharp, and they gave me a false sense of empowerment’ (...) ‘It was like being on a rollercoaster. You feel absolutely great and absolutely great about yourself, I was going to the gym and when I was using steroids, I never struggled once in the gym, constant progression, I wouldn’t ever struggle to eat well, I kept everything in tune, I was focused and motivated in all aspects of training when I was using steroids, but within a couple of days of stopping the steroids I’d really struggle, I struggle to stick to any form of training, any plan, any programme, anything’ (P8).

These accounts detail some of the psychological concerns associated with the use of doping substances. Individuals demonstrate signs of withdrawal, cravings and the addictive nature of these substances, emotional vulnerabilities and depressive tendencies. Moreover, there were signs of aggression amongst some users which presents not only a threat to the individual but also to the wider public. In the final theme to surface during the data analysis, I present participants views of ADP.

4.4 Perception of Anti-Doping Policy

The WADA outlines that it aims to protect the notion of doping-free sport (WADA, 2020). One of the ways ADOs aim to achieve doping-free sport is through the notion of deterrence. Means of deterrence are sought through anti-doping control tests and anti-doping sanctions. The theory is simple, if an athlete wishes to compete within sport, they must accept the possibility that they might face anti-doping control tests. If an athlete is subjected to an anti-doping control test and is found to have committed an ARDV, that athlete would be prohibited from sport. The potential exclusion from sporting competitions is intended to resonate heavily with athletes and deter them from using doping substances. Deterrence, however, rests on the notion that these athletes value participation within sport or perceive it likely that they will face an anti-doping test. Within the following section, I present some concerns with this notion.

During the interviews, recreational athletes perceived it unlikely that they would face anti-doping control tests and perceived there to be ways around these doping control tests. What is more, a number of recreational athletes valued the use of doping substances more highly than sports participation. Thus, the fear of an anti-doping sanction and sporting exclusion did not appear to resonate heavily with these individuals.

‘Personally, I never thought I was going to get tested, so I didn’t really think I was going to get caught. I’m not going to get banned, I’m not going to get tested. I don’t think I have ever fully considered or embraced the consequences because I never thought I’d be tested let alone caught’ (P13).

‘I’ve been in teams when you get told how you are going to get out of tests, you might be there, and you get told that other teams close around you have been tested so we are due a test soon or expect one. That was strange. I guess they wouldn’t really know but the coaches were giving players the heads up’ [...] ‘I’ve been in another team when we were asked if we were taking anything, only one player stepped forward at the time and they were told to stay away from training for a little while’ (P11).

‘Testing wasn’t that regular, we had pre-warnings, if we knew the testers were coming to training, we’d skip training’ (P3).

Neither anti-doping control tests nor anti-doping sanctions were perceived to be a real deterrent when the use of doping substances were considered. Whilst recreational athletes thought it was unlikely that they would be tested, some athletes perceived their use of doping substances to be unrelated to sport performance and is not a concern for sport, nor anti-doping. In some cases, athletes stated that they would rather use doping substances than participate within sport and this sheds greater light on these risk-taking practices and perhaps indicates why ADOs and NADOs will continue to struggle to achieve doping-free sport within recreational sport.

4.5 Summary

Throughout this section I have identified the various harms, both physical and psychological, associated with the use of doping substance within recreational sport. I have shed light on the risk-taking practices that potentially contribute to the harm and identified various motivations to use doping substances. Whilst there are several factors that can influence harm (sex, age, genetic) and are evidenced within the scientific literature (Evans-Brown et al., 2009), these harms ought not be overlooked and are morally problematic both to the users of doping substances and to public health.

The WADA (2020) outline that they aim to protect doping-free sport, sporting integrity and the health of athletes, however, the responses given during the interviews document some of the struggles towards achieving these aims. The nature of the health concerns was significant, and I argue that it is morally problematic to ignore these concerns. Whilst ADP intends to protect the health of athletes through the elimination of doping in sport, continued use of doping substances within recreational sport raises a number of concerns. Due to the significance of the health concerns associated with doping, the high estimated prevalence of doping in sport, the age of some users, with some being minors, the potential of needle sharing within AAS communities and the possible transmission of bloodborne viruses, the potential of harm to the public through aggression and violence and the potential use of counterfeit and unsafe products, I argue that doping is not only a concern for sporting organisations, but also public health bodies. I argue that more must be done to ensure the health of recreational athletes and the risk to public health appears to be widely supported (WHO, 1993; Evans-Brown et al., 2009; McVeigh et al., 2017; UKAD, 2019; UKAD, 2020).

Recreational athletes included within this investigation argued that they would continue to use doping substances regardless of anti-doping efforts or the potential health risks associated to doping substance use. These individuals did not see their use of doping substances as a sporting problem and this was primarily down to the fact that these individuals used doping substances for body image concerns and not

performance enhancement. It was notable, however, that these athletes expressed some desire to better protect their health when using doping substances and called for more appropriate information and advice to reduce the potential risks associated with doping substances.

This notion makes for an interesting topic of discussion, with the notion of harm reduction and anti-doping. On one hand, you have anti-doping who are primarily concerned with doping-free sport and on the other, you have harm reduction who are primarily concerned with the notion of health. The two approaches contrast somewhat, with harm reduction accepting that risk-taking behaviours occur and act to navigate any potential harm. Anti-doping, on the other hand, attempts to prevent doping substance use and deter athletes from engaging with these risk-taking practices altogether. Anti-doping, thus, appear to inhibit harm reduction efforts somewhat and contribute to shame, stigma and distrust. These perceptions are harmful towards the notion of health, with some athletes showing reluctance to engage with healthcare professionals (Evans-Brown et al., 2009).

Having outlined some of the struggles associated to ADP and its aim to protect doping-free sport, sporting integrity and the health of athletes, I set out three proposals in response to the concerns highlighted during the interviews. The proposal is adapted from another morally problematic risk-taking behavior; self-harm (Edwards et al., 2011). The three response are: (1) Prevent it - strengthen current anti-doping efforts; (2) allow it - abandon anti-doping; and (3) supervise it - make provisions for supervised doping. I reject the notion of retaining the status quo due to the serious nature of the health concerns associated with the use of doping substances and the potential public health threat.

Within the subsequent chapters, I will ethically examine what these different approaches might look like. Utilising the framework from healthcare ethics (Edwards et al., 2011) by way of analogy, I adapt this framework to the problem of doping within recreational sport. Adapting this model, I am better able to critically consider what these different policy responses would mean for athletes. This, of course, requires some justification. I have adapted the self-harm framework discussed within medical healthcare ethics due to its conscientious approach to another risk-taking

practice. The framework considers a number of ethical principles, such as autonomy and paternalism, and places great emphasis on the individual's capacity to determine their own choices in a relatively informed way. The framework critically considers each of the different policy options and ethically analyses what these responses mean for the individual involved. The framework lends itself kindly to the discussion of doping within recreational sport and the various options that have circulated within the doping literature. Within the doping literature, there has been much discussion supporting ADP, abandoning ADP and supervising doping. Thus, the framework within medical healthcare ethics: (1) to prevent it; (2) to allow it: and (3) to supervise it, somewhat aligns with the discussions concerning doping in sport.

What is more, Edwards et al., (2011) places great emphasis on the notion of autonomy within the consideration of self-harm. Self-harm is the practice of deliberately cutting oneself to relieve or deal with emotional challenges associated with the complex dynamic of mental illness and subjective wellbeing. Although the individual who is self-harming will experience pain, it is the visualization and sensation of the act that relieves internal emotional pain (Laye-Gindhu & Schonert-Reichl, 2005). During the interviews, some participants acknowledged that doping substances caused harm, however, these individuals subjectively valued the benefits of doping substances above these harms. Participants outlined that they would likely continue to use doping substances in pursuit of their primary goals and with complete disregard to ADP and practice. Accordingly, there appears to be some similarities within the discussion of self-harm and anti-doping. In both cases (self-harm and doping), individuals value the end goal above anything else and will likely continue to engage with these morally problematic behaviors no matter what. Thus, the framework outlined by Edwards et al., (2011) will be adapted within this thesis, providing a well-structured, coherent and thorough ethical framework to analyse doping within recreational Welsh rugby.

In the first of three responses, I critically consider the proposal to strengthen current anti-doping policy.

TO PREVENT DOPING

STRENGTHEN ANTI-DOPING POLICY

5.1 Introduction

As I have highlighted within the results chapter above, ADP appears to struggle in achieving its aims to protect doping-free sport, sporting integrity and the health of recreational athletes (WADA, 2020). Participants outlined the continued use of doping substances when participating in sport and also detailed perceived harms associated to their doping substance use. From the interviews, the most morally problematic notion is the threat to athletes' health. Some of the health concerns discussed within the interviews are identified within wider literature and there are now concerns that doping is a growing public health concern (McVeigh et al., 2017; UKAD, 2019). Due to significance of these health concerns and the ongoing use of doping substances within recreational sport, I propose and examine three different policy responses. The three-policy response are previously utilised within another risk-taking practice; self-harm (Edwards et al., 2011). The policy responses are: (1) to prevent it; (2) to allow it; and (3) to supervise it. I have adapted this model due to its contentious approach to another morally problematic risk-taking practice. In this chapter, I consider the first policy response, to prevent it. To prevent it, I mean, to prevent the use of doping substances within recreational sport. The premise being, if we are able to prevent doping within recreational sport, we are better able to protect the health of athletes, the most morally problematic theme to surface during the interviews. Within this section, I present and examine how we might achieve doping-free sport and examine any ethical concerns with this type of policy response.

Before I go any further with this policy response, to prevent doping, I first must ensure that we have a firm understanding of what I mean, when I discuss to prevent doping. The current ADP response aims to eliminate cheating in sport through the prevention and deterrence of doping (WADA, 2020); however, the current ADP response appears to fall short in achieving this aim. Recreational athletes outlined the

use of doping substances within sport, a number of individuals did not think they would face anti-doping control tests and a number of athletes did not perceive testing or sanctions to be a deterrent. Moreover, as a number of these individuals used doping substances for body image concerns, they did not consider their doping use to be a sporting issue and argued that they would rather use doping substances than participate in sport. The use of doping substances is concerning when considering the literature documenting the potential health risks associated with doping substance use (Evans-Brown et al., 2009; Pope et al., 2014; McVeigh et al., 2015; Goldman et al., 2019) and the interview responses detailing harm. Thus, failure to prevent doping and protect doping-free sport, carries a range of consequences, not just for sporting integrity, but the health of athletes. The significance of these health risks is problematic and some now consider doping to be a growing issue for public health (McVeigh et al., 2017; UKAD; 2019). Due to these concerns, I will consider and examine how we could look to strengthen ADP, better prevent doping and better achieve the WADAs fundamental aims (WADA, 2020), and better protect the health of athletes.

Within this section, I consider three different proposals to strengthen ADP, to better prevent doping and to better protect athlete health. The first proposal considers increasing the number of doping control tests within recreational sport; the second proposal considers increasing the length of anti-doping sanctions; and the third proposal considers the potential criminalisation of doping within recreational sport. Within this chapter, I will explore these proposals and ethically examine what these three proposals would mean for the individuals concerned. Whilst these options are not exhaustive, for example, we could educate athletes, further proposals are beyond the scope of this investigation. Towards the end of this chapter, I offer a short conclusion and reject the policy proposal to prevent doping by strengthening ADP based on a series of ethical concerns. To begin this chapter, I consider the notion of increasing the number of doping control tests within recreational sport.

5.2. Anti-doping in recreational sport; the need for more doping control tests?

As a response to the concerns of doping within recreational sport and the significance of the health risks, I consider whether increasing the number of doping

control tests within recreational sport would act to better deter and prevent doping, strengthen ADP and better protect the health of athletes. My premise, if the number of anti-doping control tests increased, the likelihood of receiving an anti-doping sanction would also increase, better preventing doping and better protecting health. Within the section that follows, I explore what increasing the number of doping control tests might mean for athletes and examine potential ethical concerns with this move.

5.2.1 Current state of play

The total number of doping control tests conducted by UKAD is increasing year after year (UKAD, 2020). With regards to the WRU, in 2015-2016, a total of 110 doping control tests were conducted, (32) in-competition and (78) out-of-competition. In the following year, 2016-17, the total number of doping control tests more than doubled to 352 (56) in-competition and (296) out-of-competition. This figure slightly decreased the year after, in 2017-18, with a total of 304 (48) in-competition and (256) out-of-competition doping control tests conducted. In the year 2018-19, the total number of doping control tests rose to its highest yet, 486, (87) in-competition and (399) out-of-competition (UKAD, 2016; UKAD, 2017; UKAD, 2018; UKAD, 2019). These doping control tests were conducted by the UKAD on behalf of the WRU, but the UKAD withholds information that outlines which level these athletes participate. Whilst the total number of doping control tests is increasing, the WRU currently have around 90,000 registered players (World Rugby, 2019). Based on the latest testing figures, Welsh rugby players would have a very small chance of being tested and although this overlooks the number of tests conducted at elite or recreational levels, anti-doping control tests appear unlikely.

Whilst it is easy to suggest that the total number of doping control tests conducted each year needs to increase, there are a number of practical issues with this move. Doping control tests cost money, on average around £350 per test (Butler, 2017). Increasing the number of anti-doping test would come at a huge expense and does not necessarily mean that there will be an increase in positive tests, nor does it mean that recreational athletes would be less likely to use doping substances. Anti-doping tests have struggled in terms of sensitivity, efficacy and detection (Ayotte et al.,

2017; Bowers et al., 2017), and there are specific drugs such as HGH, whereby testing lacks the ability to determine and distinguish between synthetic and naturally occurring versions of the hormone (Green et al., 2009; Uryasz, 2009). Thus, increasing the number of doping control tests might not be the answer to recreational sports woes.

During the interviews, a number of recreational Welsh rugby players did not think they would face anti-doping control tests. These individuals perceived there to be very few anti-doping tests within rugby and even fewer within recreational levels of Welsh rugby. For that reason, these individuals did not fully consider anti-doping sanctions to be a deterrent because they did not think they would ever physically receive one. One might suggest by increasing the number of anti-doping tests, this would act as a greater deterrent, strengthen ADP, prevent doping and better protect athletes' health. Notably, however, a number of recreational Welsh rugby players perceived there to be ways around anti-doping controls. Some individuals suggested that they had been given the 'heads up' about doping tests and were 'in the know' about testing dates and times. Others spoke about pre-warnings that anti-doping control officers were due to turn up at training or matches. In addition, a small number of players spoke about the types of doping control tests that were more likely and perceived that urine testing was far more common than blood testing. Participant (9) outlines:

'Yes, they can test you but with growth hormone they can't test it through urine, it has to be through blood. But what they say is that to test urine is 'X' amount, but to test blood is 5 times 'X' amount. They don't tend to do blood testing at that level because of the price of testing blood. I think I'm fairly safe in that sense' (P.9).

With this information and the knowledge that the substance HGH was extremely difficult to detect in urine, some individuals were unconcerned about the possibility of anti-doping control tests because they had chosen to use HGH. Finally, some players mentioned that the use of doping substances was more important than participation in sport itself. These individuals appeared very willing to be excluded from sport on the basis that they could use doping substances to achieve body image

ideals or goals, with some suggesting that they would drop out of sport completely if doping controls and testing became a bigger problem. Due to these concerns, I propose that ADOs and NADOs ought to consider increasing the number of doping control tests. If recreational athletes perceive it more likely that they will face an anti-doping control tests and receive an anti-doping sanction, this might better prevent doping, protect the notion of doping-free sport, sporting integrity and the health of athletes. Below, I ethically examine the proposal to increase the number of doping control tests.

5.2.2 Ethical concerns of increasing the number of doping control tests within recreational sport

There are a number of ethical concerns associated to the proposal of increasing anti-doping control tests. Within this short section, I focus upon and examine the notion of privacy. ADP requires athletes to forfeit a degree of privacy when they decide to participate in sport, and I examine whether the level of privacy that must be forfeited when we consider anti-doping control tests can be justified.

5.2.3 Privacy

To begin this section, I must first ensure the definitional boundaries of privacy are understood. Privacy is said to be the condition of having control over information about oneself and the condition is necessary for human dignity, intimacy and the development of varied interpersonal relationships (DeCew, 2018). Privacy is said to allow us the ability to share what we want, when we want. We give great moral value to the term privacy and privacy is said to define one's essence as a human being and it includes dignity, integrity, personal autonomy and independence. Respecting these values is what grounds and unifies the concept of privacy (DeCew, 2018). Having fleshed out some of the definitional boundaries of privacy, I now move to consider how anti-doping control tests impact privacy and what increasing the number of doping control tests would mean for athletes.

To increase the number of anti-doping control tests, we are agreeing that the current doping control procedure is permissible. The procedure requires an athlete to reveal

their genitals, exposing themselves knee-to-bellybutton and offering an uninterrupted view of the passing of urine. An anti-doping control officer of the same sex will observe the process and ensure testing integrity is maintained throughout (WADA, 2020). To increase the number of anti-doping control tests, we are saying that it is permissible to increase the number of individuals who must expose themselves to a stranger and it is permissible to subject athletes to these procedures on multiple occasions. Doping control tests are undeniably invasive, intrusive, violate privacy and with that, threaten human dignity and self-worth. Thus, to increase the number of doping control tests within recreational sport, we are saying that it is justified and permissible to subject individuals to these unpleasant, degrading and intrusive experiences.

It is important to note the two different types of anti-doping tests and how and when they can occur. In-competition doping control tests are the type of drug testing that occurs at a sporting event. Out-of-competition testing are the type of tests that might occur at any point and at any time (WRU, 2019; WADA, 2020). Testing is usually unannounced, can take place at an athlete's home and is extremely intrusive and is an invasion of privacy. The WADA see anti-doping control tests as an essential cog within the ADP and justifies testing on the basis that it acts as a strong deterrent to doping athletes. Although invasive, out-of-competition testing makes up the majority of anti-doping tests (UKAD, 2019; UKAD, 2020). Out-of-competition is necessary due to the fact that there are a number of substances athletes could use, attain some kind of performance enhancement benefit but have small detection windows and washout periods (Ayotte et al., 2017; Bower et al., 2017). Thus, unannounced out-of-competition testing that offers an element of surprise, appears necessary to detect, prevent and deter doping behaviours.

Whilst random anti-doping tests play an important role within anti-doping efforts, target testing has become more of a priority for ADOs, IFs, NGBs and NADOs. Target testing means that specific sports, which have specific characteristics, can be made a target for doping control tests. If a particular sport is perceived to have a doping problem, greater resources will be made available and focused within that area (WADA, 2020). Planning for anti-doping control tests takes into consideration the types of substances that are more likely to be used, at what points during an

athletes career or season, level of sporting participation, sporting performance history, injuries, withdrawal from competition, moving to a remote location, association to a third party (doctor or team mate) with doping history, financial incentives of the competition and reliable information from a third party or intelligence driven investigations (WADA, 2020). This could mean the same athletes are targeted on several different occasions and be subjected to the same invasive testing procedures on each occasion. Anti-doping control tests have the potential to expose athletes to a range on unpleasant emotions and it appears morally questionable how we could justify exposing further individuals to these experiences.

Throughout his career, Lance Armstrong was reported to have been tested a number of times (Austen, 2012) and whilst this is an elite sporting example, it allows us to consider more thoughtfully around the ethical issues associated to doping control tests and concerns and implications for the notion of privacy. Not only do doping control tests impact the life of the athlete, but they also leave an impression on families and friends. ADP appears to have a great degree of control over athletes and this control and intrusion might impact the quality of life for athletes. Out-of-competition testing means that athletes could be subject to anti-doping control tests within their own homes and Elbe & Overbye (2014), outlines that athletes felt like their integrity and privacy had been violated when doping control tests were conducted at their homes. Thus, to increase the number of anti-doping tests within recreational sport would be to increase the number of athletes who are exposed and experience these kinds of feelings. This is concerning when we consider that these are real people we are talking about and the range of emotions these individuals might be subject to. If recreational athletes feel in anyway threatened or pressured, then increasing the number of doping control tests appears morally problematic.

To expose oneself to a doping control officer is unsettling and could undoubtedly trigger a range of emotions for the athlete. Elbe & Overbye (2014) report that athletes who had experienced doping control tests experienced a level of stress during the test, with some individuals reporting that their personal integrity and privacy had been violated. These are concerning findings and it is questionable how we could justify increasing the number of individuals who are put through these traumatic experiences. Elbe et al., (2014) went on to report, team athletes felt that

their privacy had more greatly been implicated than individual sport athletes when they faced anti-doping tests. Whilst the findings were unsure as to why this might be, there was some suggestion around the notion that team athletes were less likely to be tested and it was perhaps a greater shock when they were selected for testing, triggering a greater array of emotions. Although there is some uncertainty behind these claims, the findings allow us to think more carefully around the notion of increasing the number of doping control tests within recreational sport. Due to the fact that the main focus of this thesis is on recreational Welsh rugby players, the findings suggesting that individuals within team sports might be exposed to greater risks (Elbe et al., 2014), is an interesting consideration to make. Although increasing the number of doping control tests within recreational sport might better prevent doping in recreational sport and perhaps better protect health of athletes from the risks associated to doping substances, it comes at the expense of athlete privacy.

In the following section, I examine how an increase in the number of doping control tests might threaten bodily modesty and this ought not be overlooked when considering whether or not, we could justify increasing anti-doping control tests within competitive recreational sport.

5.2.4 Bodily modesty

It is stated that bodily modesty is a form of physical privacy with specific interest to medical ethics. It is stated that if patients are to receive the best care, they must be willing to expose their bodies to healthcare professionals. In order to preserve bodily modesty and privacy, a number of steps are taken to protect these patients. These steps include appropriate rooms for medical examination, appropriately trained professionals, patients treated by a healthcare professional of the same sex, limiting the time of exposure and special modesty garments (Allen, 2016). Within this short section, I will explore and examine how anti-doping control tests attempt to respect athlete bodily modesty and also point towards some potential concerns. Picking up on these concerns, I question whether increasing the number of doping control tests could be justified.

During doping control tests, the athlete would reveal their genitals to a complete stranger so that a urine sample can be taken. Although some means are taken to respect bodily modesty during doping control tests, such as, appropriate rooms offering privacy and a testing official of the same sex (WADA, 2020), these measures are perhaps not always enough to ensure bodily modesty is upheld. Within recreational sport, the facilities to conduct doping control tests might be limited. Within recreational Welsh rugby, some clubs might have very limited access to facilities to ensure that testing is conducted in appropriate locations. If testing locations were not appropriate, it is likely that bodily modesty would be implicated.

Within medical ethics, Allen (2016) writes that patients are only required to expose themselves for short periods of time during medical examination. By ensuring this exposure time is kept to a minimum, bodily modesty is better respected. However, within anti-doping control tests, Elbe et al., (2014) outlines that some athletes have trouble urinating when an anti-doping control tests are conducted. This would mean an athlete might face observation for an extended period of time, threatening the conditions of bodily modesty. Not only would this have implications for bodily modesty, but it would likely trigger a range of emotions for the athlete under visual observation. Moreover, within medical settings, Allen (2016) outlines that garments are sometimes provided to patients to better ensure bodily modesty is respected. These garments aim to provide patients with some protection; however, the same measures cannot be taken within anti-doping control tests. An anti-doping control officer must have an uninterrupted view of the genitals, knee-to-bellybutton (WADA, 2020), and it is due to these requirements, that athletes would be unable to have any type of garment to better protect and preserve bodily modesty. Due to the concerns associated with bodily modesty, it appears questionable how we could defend and justify increasing the number of doping control tests and increasing the number of individuals who are exposed to a loss of bodily modesty.

Allen (2016) also outlines that within certain faiths; bodily modesty is a requirement to uphold faith and tradition. Thus, these considerations are worth noting and perhaps point towards ethical and practical concerns with drug testing within recreational sport. If appropriate measures are not in place to respect tradition and faith, like testers of the same sex or faith, then it is possible that basic principles of bodily

modesty will be violated for these individuals. If bodily modesty and privacy are unattainable during the doping control test process, it appears morally problematic how we could attempt to justify and increase the number of individuals who are exposed to those harms. Within the following section, I consider the notion of bodily integrity and examine what this means for proposal of increasing the number of doping control tests within recreational sport.

5.2.5 Bodily integrity

Allen (2016) writes that mandatory testing offends bodily integrity as it forces individuals into and through unwanted physical and visual inspection. It is suggested that much non-consensual urine and blood testing has occurred in jobs tied to public safety and crime, but in doing so, disrespects individuals' autonomy and bodily integrity. Whilst doping control tests within sport occur with athletes' consent, the quality of that consent can be questioned somewhat. It is possible that not all recreational athletes know of their obligations when it comes to doping control tests and this is problematic when we consider that consent is granted through participation in sport alone. It is also important to raise the point that if an athlete were to refuse an anti-doping control test, they would likely face an anti-doping sanction for doing so. Once again, the quality of consent can be questioned and this might impact individuals, their decision making and their choices. Within this short section, I explore how doping control tests threaten bodily integrity.

Within sport, anti-doping control tests require an athlete to provide a blood/urine sample and failure to do so would account for an ADRV and would mean that the athlete would face an anti-doping sanction. Forcing an athlete to go through this process would violate bodily integrity as these individuals would undergo unwanted visual observation and inspection during the entire passing of the sample. Athletes would likely experience a degree of discomfort both during these observations and in the knowledge that they have little other choice but to go through this process. If these individuals refused an anti-doping control test, they would be committing an ADRV and likely face an anti-doping sanction. Thus, violations of bodily integrity are likely during the drug testing process. Due to these concerns, it appears morally questionable how we could justify and defend additional anti-doping tests which

would increase the number of individuals who go through these intrusions of bodily integrity. Athletes would be exposed to a great deal of discomfort when going through these processes and to feel like you have little other choice but to concede to anti-doping control tests and anti-doping rules is oppressive and degrading. By removing athlete's freedom, control and ownership, bodily integrity appears to be under threat, and it is problematic how we could defend such a move when there are a number of ethical concerns associated with this proposal.

Within the following section, I consider privacy concerns associated to personal data and loss of ownership over that data. Anti-doping control tests require athletes to disclose an expanse of personal information and within the following section, I consider whether the ethical concerns associated to the handling and access of this data is justified.

5.2.6 Personal information

There are also concerns for privacy when we consider the handling of personal information and test results. It is feasible to suggest that an athlete who is selected for an anti-doping test might have a medical condition or illness. These medical conditions may well be sensitive, embarrassing or bring shame to the individuals. Having to disclose this kind of information might raise concerns for those involved and these individuals might fear discrimination or stigma when disclosing this type of information. What is more, some individuals might lose a sense of ownership over personal data and information. If athletes are unsure how information is stored and shared between NADOs, ADOs, NGBs and Ifs, then these individuals might fear that personal information is freely exchanged with little thought or consideration for the individual involved. If these individuals feel like the ownership of this personal data and information is open and widely accessible, then these individuals will likely experience a level of discomfort not knowing where this information might end up. It is also possible that the media might get hold of information and decide to publish articles which disclose personal information. Not only would this threaten privacy, but the information within these stories might bring employers into disrepute. If this was the case, this might give grounds for dismissal. These factors ought not be

overlooked when we consider the proposal of increasing the number of doping control tests within recreational sport.

If the number of anti-doping control tests were to increase, ADOs must have robust systems to support and protect the storage of personal information and data. Within a recent attack of the WADAs Therapeutic Use Exemptions record database, a database concerning the medical data of athletes, medications and medical conditions, the Russian hack-team, '*FancyBears*', gained access to the database and revealed the personal information of a number of athletes (Cox, Bloodworth & McNamee, 2017). The successful hack of this database highlights the potential risks to some athletes and supports concerns that some athletes might have reservations giving away personal information and data. If the number of anti-doping control tests were to increase in recreational sport, the storage of personal data and information would also likely increase. If this data included sensitive and private information that the athlete wishes to protect and keep private, then these individuals would undoubtedly have reservations parting with this kind of personal data. This point ought not be overlooked when considering the proposal of increasing anti-doping control tests within recreational sport.

Having outlined some of the ethical concerns associated to the proposal of increasing the number of anti-doping control tests within recreational sport, I search whether these ethical concerns can be justified to better protect doping-free sport and better protect the health of athletes, two of the fundamental aims of the WADA (2020).

5.2.7 Privacy; a search for justification

Above I have presented and examined how athlete's privacy might be implicated if they were to face increased numbers of anti-doping control tests. Here, I identified various aspects of doping control tests that ought to be considered morally problematic, and I find it difficult to justify how we could increase the number of individuals that would be exposed to these ethical concerns. Within the following section, I explore and examine some of the potential justifications.

Previous work has suggested that we have human rights to privacy and these rights may only be breached if an action or behaviour might cause serious harm to others or if the intervention is for the greater good of others (Houlihan, 2004; Teetzel, 2007). Houlihan (2004) talks about potential breaches of privacy and uses the example of drink drivers. Here, it is suggested that a drink driver would unlikely want to give a blood or urine sample, and the process is undeniably invasive and breaches privacy, however, the intrusion of privacy can be justified on the basis that the outcome of the test benefits society and brings justice to those involved. Further arguments are outlined by DeCew (1994) who suggests that drugs testing in the workplace might be justified on several grounds. Drug testing is said to weed out drug use, to better ensure the safety of others and to maintain public confidence and ensure the trustworthiness and integrity of an operation. Whilst discussion here focuses on employment and the workplace, one can draw similarities to sport.

Within sport, anti-doping tests aim to ensure clean sport by preventing and catching doping substance users. In the hope of eradicating doping, anti-doping tests aim to prevent harm to the user and also other athletes. Moreover, doping control tests aim to protect sporting integrity which would be beneficial for the wider sporting community and instil trust within the public and their perceptions of sport more generally. Serious harm to others is cited amongst one of the justifications to breach privacy (DeCew, 1994), and it is possible that users of doping substances who also play rugby, will inflict harm to others. Harm might occur through increased injury risk and loss of the game. Whilst these harms perhaps justify a loss of privacy through doping control tests, breaches of privacy seem somewhat questionable when we consider some of the practical concerns with anti-doping tests. Some anti-doping tests lack efficacy and are limited in terms of sensitivity, with some tests returning false positives and some doping substances difficult to detect (Bower et al., 2017). If we were to increase the number of doping control tests without improving these flaws within anti-doping control tests, then it is likely that athletes will experience unjustifiable harms and incorrect sanctioning decisions. DeCew (1994) outlines that drug testing in the workplace can be justified on the grounds that it weeds out drug use and suggests that drug testing in the workplace is somewhat successful at achieving these aims. If anti-doping tests prevented and deterred the use of doping substances within sport, then breaches of privacy might seem somewhat justified.

However, when we consider that the majority of recreational Welsh rugby players were not deterred by anti-doping control tests, it appears questionable how we could justify increasing the number of anti-doping tests and exposing these athletes to a range of ethical concerns. If anti-doping tests lack efficacy through detection of doping substances or deterrence, then any associated breaches of privacy during anti-doping tests appear less permissible and morally problematic.

There is also some suggestion that breaches of privacy can be defended and justified on the basis that it is in the public interest (Houlihan, 2004). Although invasive, drug testing within sport aims to better ensure clean sport and sporting integrity. Thus, if an athlete is using doping substances and is winning competitions, sponsorship deals, funding (of which can be public money) and prize money, it is in the interests of the public and wider sporting community, to know that an athlete has been doping. Due to the fact that it is in the public interest to know of these details, breaches of privacy through anti-doping control tests appear morally justified. Whilst I recognise the importance and value of this argument within elite sport, I question whether the same can be said within recreational sport. Within the interviews, some rugby players outlined that they played within some of the lowest levels of Welsh rugby and played in teams which struggled to field 15 players each weekend. Some of these teams would not have training sessions, and individuals would simply turn up on the weekend and play. Moreover, the majority of these individuals were not using doping substances to improve their sports performance, nor were they using these substances to win competitions, prize money or sponsorship deals. These individuals were using doping substances to look good, achieve body image ideals and enhance muscularity. I question what good we would achieve by increasing the number of doping control tests within recreational sport when we are uncertain that this move would better prevent doping, better protect doping-free sport and better protect health. Moreover, as there are uncertainties with the efficacy of this proposal, the ethical concerns associated with anti-doping control tests appear even more problematic. In addition, I question whether it is truly within the public interest to know of doping at this level and for these reasons, I argue that increasing the number of doping control tests and exposing individual to a range of ethical concerns is unjustified.

Further searches for a potential justification to breach privacy might consider the huge sums of money, sponsorship deals and contractual incentives that are on offer in sport. Notably, however, within recreational sport, where participation is largely based upon fun, enjoyment and recreation, invasive anti-doping tests appear less justifiable. Thus, this argument fails to offer adequate grounds to justify breaches of privacy within competitive recreational sport. DeCew (1994) outlines, ‘the key moral issues involve determining when the interests of others are significant enough to outweigh the threats to tests subjects and when the achievable goals outweigh the negative consequences of testing’. Understanding and establishing the moral issues within recreational sport is difficult, however, this understanding appears necessary to determine what truly matters.

Having established some of the privacy concerns associated to anti-doping control tests and highlighted some of the ethical concerns with the proposal of increasing the number of doping control tests, I will now offer a short conclusion.

5.3 Conclusion

At the very beginning of this chapter, I set out that recreational Welsh rugby players used doping substances and experienced adverse health consequences associated with the use of those substances. Due to the significance of these health concerns, I outlined three different policy solutions: (1) to prevent doping; (2) to allow doping; and (3) to supervise doping. Within this first section of the chapter, I have considered the notion of increasing the number of doping control tests within recreational sport as a means to better prevent doping.

Within this section, I have focused on some of the ethical concerns associated with doping control tests and have focused on the notion of privacy. I focused on the notion of privacy because of the moral weight associated to privacy and the associated concerns within drug testing. Previous work states that breaches of privacy can be justified when the intervention protects others from serious harm, benefits the greater good or is the public interest. I argue that doping within recreational sport does not warrant such invasive and burdensome measures. Drug testing through urine requires visual observation and blood testing requires a needle

to puncture the skin. Both of these testing methods carry their own set of ethical concerns but urine tests in particular, strip athletes of their dignity, threatens bodily modesty and integrity. Moreover, urine tests are invasive and intrusive, and athletes might experience a range of unpleasant emotions during the drug testing process.

Previous discussions have outlined that breaches of privacy can be defended on grounds that the interventions are somewhat effective in reducing the target behaviour, that harm would occur without the intervention and that the knowledge or details is in the public interest (DeCew, 1994). It is questionable, however, whether increasing the number of anti-doping control tests would reduce or prevent doping, as a number of rugby players outlined that they would rather use the doping substance than play rugby. Thus, breaches of privacy appear questionable when this first justification is not met. Secondly, it is difficult to determine whether significant harm will occur to others. Whilst recreational Welsh rugby players reported to have experienced personal harm, there appeared to be little causation of harm to others. What is more, if these individuals continued to use doping substances outside of sport, then these individuals would likely continue to experience harm. Finally, I reject that it is in the public interest to know of doping in the lower levels of Welsh rugby. These individuals are participating for fun and using doping substances for personal reasons, body image and body dissatisfaction. In this instance, the use of doping substances has limited impact when the public interest is considered and to say it is in the interest of the public to know these facts, I find it challenging. Thus, the ethical concerns associated to the proposal of increasing the number of anti-doping control tests, outweigh the potential of better protecting the notion of doping-free sport.

Having explored the proposal of increasing the number of doping control tests within recreational sport and outlined a number of ethical concerns associated to this notion, I move on to consider the second proposal to better prevent doping. The second proposal considers whether increasing the length of anti-doping sanctions might better protect the notion of doping-free sport and consequently, better protect the health of athletes. Within the following section, I examine whether this move to strengthen ADP can be ethically justified.

5.4 Increasing anti-doping sanction length

As I have previously mentioned, the current ADP appears to face several challenges within recreational sport. These challenges outline that the use of doping substances continues to persist within recreational levels of Welsh rugby and athletes experience adverse health consequences due to the use of those doping substances. As a consequence of those concerns and the significance of the health risks, I have outlined three proposals to respond to these concerns. Within this section, I explore the notion of preventing doping through strengthening the current ADP. To strengthen ADP, I present and examine three different policy revisions. In this short section, I explore the notion of increasing the length of anti-doping sanctions within recreational sport.

5.4.1 Sanction length

Within elite and recreational sport, the WADA Code specifies that athletes can be sanctioned up-to four years from a first-time doping offence (WADA, 2020). The WADA outline that anti-doping sanctions help to prevent and deter doping within sport and the punitive nature of ADP is necessary to better protect clean sport. Whilst athletes can see reductions in sanction length if they can prove no significant fault and the revised 2021 WADA Code offers greater sanctioning leniency within recreational sport, the length of anti-doping sanctions are still intended to pose a real threat to doping athletes and deter and prevent doping substance use. Notably, however, athletes continue to use doping substances within Welsh rugby, and this is particularly concerning when we consider the health risks associated with the use of doping substances (Evans-Brown et al., 2009; Pope et al., 2014; Goldman et al., 2019). Moreover, a number of Welsh rugby players detailed experiences of harm when using doping substances and for this reason, I have proposed three-policy responses to combat this risk-taking practice. Searching for a response to these concerns, I explore and examine whether increasing anti-doping sanction length could strengthen ADP, better protect the notion of doping-free sport and better protect athletes from significant harm.

During the interviews, very few Welsh rugby players perceived anti-doping sanctions to be a deterrent and this mainly stemmed from the notion that athletes did not ever think they would be tested. Participant 12 explains:

‘The level I was playing at, I didn’t think I’d ever get tested to be honest. I wasn’t worried about that at all. I was playing for a local 2nd team at the time, more so for the social aspect. I didn’t worry about it’ (P.12).

When I pushed these individuals further, a number of rugby players outlined that the use of the doping substances was more important than participation in sport itself. Thus, if these individuals had to make a decision whether to use doping substances or play rugby, a number of these individuals would have chosen the use doping substances over rugby. Participant 2 states:

‘Honestly, I think if it became a big thing people would just avoid the rugby side of things because I don’t think it’s just a problem in rugby, I think it’s a thing in Wales in general, everyone does it and I think people would just prefer to be in really good shape than play rugby’ (...) ‘Yeh, a lot of lower level is a social thing, boys just enjoy it doing it, training well and looking good and then they play a little bit of rugby on the side because they enjoy it. It’s just one of those things that is a huge problem now which is way too late to try and solve’ (P.2).

This boils down to the motivations behind doping substance use and the fact that rugby players included within this investigation were generally not serious sportsmen. These individuals played sport for fun, enjoyment and the social aspect of the game. Thus, exclusion from rugby did not appear as much of a problem as perhaps in elite sport, where participation is based upon winning and livelihoods. Concerns were raised in terms of employment and whether anti-doping sanctions would affect job positions. Moreover, there was some concern with what family members might think if they were to discover that they had been using doping substances. Participant (5) states:

‘I probably realised when I was younger that the chances of you getting tested when you were younger were very slim, but when you are playing at the more senior levels and I think there was a certain period of time when steroid use was very heavy and there were conversations that the regulators were coming in and conducting more testing and I didn’t want to be in that pot because of my parents, I’d be ashamed and if they thought I was doing something like that I felt like they’d probably disown me. My father is so against smoking, drugs, he said he would I’ll batter you if I ever catch you doing something like that, so that puts you off a bit’.

Again though, these individuals appeared less concerned about the sporting exclusion itself, but rather what people would think of them and how they might react.

Having outlined the current position on anti-doping sanctions within recreational sport and how the current sanctions are perceived by recreational Welsh rugby players, I move on to consider whether increasing anti-doping sanction length might better prevent doping and better protect athlete health. Moreover, I consider and ethically examine whether this proposal is proportional to act of doping within recreational sport and examine whether this proposal could be justified.

5.4.2 Ethical concerns with anti-doping sanctions

Within this short section, I consider some of the ethical concerns that arise from the proposal of increasing the length of anti-doping sanctions within recreational sport. I begin by highlighting how the punitive anti-doping approach drives doping behaviours underground and perhaps further risks athletes’ health.

5.4.3 Punitive anti-doping sanctions

Kayser et al., (2007) outlines that the punitive approach by the WADA and ADOs has pushed doping behaviours underground. Pushing doping underground and away from healthcare professionals increases the health risks for the users of these drugs and this is concerning when we consider the health and well-being of recreational

athletes. Although increasing the length of anti-doping sanctions might better prevent the use of doping substances within recreational sport, athletes may continue to use doping substances outside of sport. Moreover, the current anti-doping approach is said to drive doping behaviours underground. If anti-doping strengthened its approach by increasing the length of anti-doping sanctions, it is feasible to suggest that further athletes would be prevented from seeking medical and healthcare advice regarding their use of doping substances. If athletes fail to access necessary and appropriate healthcare support due to the increasing punitive nature of anti-doping sanctions and further athletes were to experience harm, then I argue that this approach is morally questionable and cannot be justified.

One of the most significant points to arise during the interviews was the diverse and serious nature of the harms experienced by recreational Welsh rugby players. These harms were hugely problematic for those implicated, however, the occurrence of harm appeared somewhat preventable. A number of rugby players outlined a basic lack of knowledge regarding the use of doping substances and placed trust in unreliable information outlets. This is concerning when we consider the health of these athletes and the notion that some of these harms could have been avoided. If these athletes had accessed appropriate information and advice, the causation of harm would likely have been avoided, and these individuals might not have suffered as a consequence. By increasing anti-doping sanction length, we risk driving doping behaviours further underground and further from healthcare professionals. Moreover, a number of the rugby players outlined that they would rather use doping substances than participate within sport and that they would continue to use doping substances outside of sport. Accordingly, to increase anti-doping sanction length does not appear to ethically respond to the problem and only moves it elsewhere. If these individuals were to continue to use doping substances outside of sport, then these individuals will likely continue to experience harm and present a risk to public health.

Whilst the current ADP is said to drive doping behaviours underground and away from healthcare professionals (Kayser et al., 2007; Evans-Brown et al., 2009), ADP plays an integral role within efforts to prevent and deter use of doping substances not just within sport but also by the general public. It is notable that the use of many

substances included on the WADAs Prohibited list is not illegal. Thus, outside of organised sport, the general public are freely allowed to use these substances. This is concerning when there is a wealth of scientific evidence documenting some of the harms associated to the use of these substances (Evans-Brown et al., 2009; Pope et al., 2014; Goldman et al., 2019). ADP appears to play an important role in attempting to prevent and deter the use of doping substances, not just within sport but also within the general public. Prohibiting the use of doping substances with sport through anti-doping rules and anti-doping sanctions, helps to shape perceptions and beliefs regarding the use of doping substances. If more individuals perceive it to be impermissible to use doping substances, then perhaps fewer individuals will be likely to use those substances. Thus, increasing the length of anti-doping sanctions might be one way of reinforcing the perceptions of doping to be considered a deviant behaviour and one-way ADOs could act to better protect the health of athletes and the general public. Nonetheless, if increasing the length of anti-doping sanctions inhibits individuals from engaging with healthcare professionals about their use of doping substances, then these individuals will be exposed to otherwise potential and avoidable harm.

Having outlined how anti-doping sanctions might drive doping behaviours underground and away from healthcare professionals, I move on to consider how anti-doping sanctions can bring individuals shame and stigma. By increasing the length of anti-doping sanctions, I question whether this might further exaggerate some of these harmful effects.

5.4.4 Sanctions, shame & stigma

If we agree that increasing the length of anti-doping sanctions is a feasible solution to better protect the notion of doping-free sport and the health of athletes, we must be in agreement that there is a great degree of moral concern associated to doping and more needs to be done to prevent it. I argue that the significance of these concerns comes through the potential health risks associated with the use of doping substances and it is due to these concerns that I have proposed the notion of increasing the length of anti-doping sanctions. The premise, by increasing the length of anti-doping sanctions, we increase means of anti-doping deterrence and prevention. If better

ADP compliance can be achieved through deterrence and prevention, the WADAs aims will be better supported and the health of athletes is also likely to be better protected. Protecting athlete health appears vital when considering the risks associated with doping substance use (Evans-Brown et al., 2009; McVeigh et al., 2015), however, by increasing the length of anti-doping sanctions, we increase the risks and unintended fallout associated to anti-doping sanctions.

Within the academic literature, there is evidence to support that athletes experience shame and stigma when they receive anti-doping sanctions (Hong et al., 2020). Thus, it is feasible to suggest by increasing the length of anti-doping sanctions, we risk exposing athletes to greater harm. Within the following section, I explore the shame and stigma associated to anti-doping sanctions and examine how increasing anti-doping sanction length could exaggerate these effects.

Hong et al., (2020) outlines that anti-doping sanctions bring shame and stigma to those that are caught using doping substances and I argue by increasing the length of anti-doping sanctions, we would increase the likelihood and seriousness of these detrimental experiences. If athletes are more likely to experience negative, emotional and distressing events due to the proposal of increasing the length of anti-doping sanctions, then the ethical defensibility of this proposal ought to be questioned. Nonetheless, if by increasing anti-doping sanction length meant to achieve better ADP compliance through reduced doping substance use and better health protection, then these unintended consequences and ethical concerns must be weighed up. Although the notion of shame can be considered as a potential concern associated with ADP and be presented as an argument not to increase the length anti-doping sanctions, there is an argument which suggests that shame is a somewhat necessary condition within the deterrence and prevention of doping substance use. Bloodworth et al., (2010) reports that athletes felt that the potential of anti-doping sanctions and the associated shame that these sanctions would bring acted towards the deterrence of doping substance use. Thus, although shame is associated with a range of negative connotations, the fear of shame appears to deter and prevent some individuals from using doping substances.

It is reported that some athletes experience a sense of isolation after a doping offence (Hong et al., 2020), and anti-doping sanctions restrict an athlete's ability to engage within a community of team-mates and friends due to the notion of prohibited association and complicity clause (WADA, 2019). If we were to increase anti-doping sanction length within recreational sport, we would restrict an athlete's ability to engage within friendship groups and sporting communities for an extended period of time. This is concerning for those individuals that rely on sporting communities for social interaction and engagement, and this might impact the quality of life for these individuals.

During the interviews, a number of rugby players spoke about the social aspect of the game being more important than sporting performance. Sport gave these individuals something to do in their free time, it gave these individuals some sort of purpose and focus within their lives outside of work. Individuals spoke of the community aspect of the game and outlined that it was something they enjoyed doing. If we were to increase anti-doping sanction length, we would be restricting an individual's ability to engage in sporting communities and wider social circles. Due to the social value of sporting participation within recreational sport, I argue that it is problematic how we could justify extending the period of time that would restrict these social opportunities for these individuals. Anti-doping sanctions ought to be justified and proportional and I argue that the unintended consequences of anti-doping sanctions and the proposal of increasing the length of anti-doping sanctions, is unjustified and morally problematic within recreational sport.

In an additional concern, Hong et al., (2020) outlines that athletes can be cut off from any kind of support after receiving an anti-doping sanction and this leaves athletes in a vulnerable position. If we extend anti-doping sanction length, we further risk athlete welfare, health and well-being. Anti-doping sanctions leave athletes in an emotionally vulnerable position and to impose more significant and weighty sanctions appears problematic. Increasing sanction length would likely increase the risks athletes are exposed to during sanctioning periods and this would likely have a greater impact on the health and well-being of these individuals. I argue that the response to increase the length of anti-doping sanctions would not respond meaningfully towards the harms associated with doping substance use and contribute

to additional harms. Anti-doping sanctions have the ability to cast shame and stigma on athletes, their families and friends. If we were to increase anti-doping sanction length, this might further exaggerate these harmful and unintended consequences. In addition, Hong et al., (2020) reports that athletes felt somewhat socially isolated during anti-doping sanctions. This is concerning when we consider athlete well-being and if we were to increase the length of anti-doping sanctions, this would only increase feelings of isolation and exclusion. Thus, exposing athletes to a greater degree of vulnerability is morally questionable and this ought not be overlooked when considering the proposal of increasing anti-doping sanction length.

Having outlined some of the concerns associated to shame and stigma, I question whether the move towards increasing the length of anti-doping sanction would be justified and proportional.

5.4.5 Justified and proportional

During the interviews, a number of athletes stated they had not received any form of anti-doping education. Due to this lack of knowledge, one rugby player questioned whether the substance that he was using was prohibited or not. Participant 12 outlines:

‘At the time I don’t think the SD-Matrix was banned in sport, it was a new product, that’s why so many were using it that I knew’. (P12).

Lacking the relevant knowledge required to make informed decisions is concerning when we consider anti-doping sanctions and the proposal of increasing the length of anti-doping sanctions. If recreational athletes are unaware of what they are signing up for when they participate in sport, or lack the necessary and relevant knowledge, then these individuals will be more likely to receive anti-doping sanctions. I argue that it is unjustifiable to sanction athletes when they have not received anti-doping education, let alone to consider increasing anti-doping sanction length. If recreational athletes are to be sanctioned in the same manner as elite athletes, then both of these populations need fair and equal access to anti-doping education. If recreational athletes are given less opportunities to access anti-doping education than elite

athletes, then it is likely that recreational athletes will receive a disproportionate number of anti-doping sanctions and for unintended ADRVs.

Whitaker et al., (2017) reports that a number of rugby players who received anti-doping sanctions had not accessed anti-doping education prior to committing an ADRV. Due to this issue, some athletes received anti-doping sanctions for unintentional doping offences. Whitaker et al., (2017) outlines that lack of anti-doping knowledge and education meant that some athletes were hit harder by anti-doping sanctions. If some athletes are truly unaware of anti-doping rules and their responsibilities, then I argue that it is questionable how we could consider extending these periods of ineligibility for these athletes. Moreover, if recreational athletes are unaware of basic anti-doping rules, then these individuals are also unlikely to fully comprehend and acknowledge the severity and impact of anti-doping sanctions. If these athletes do not have the opportunity to consider and weigh up the possible implications of anti-doping sanctions prior to the use of doping substances, then I argue that it is somewhat questionable how we can justify punishing these individuals. Not only would anti-doping sanctions implicate sporting participation, but they might also implicate potential career and employment opportunities outside of sport. Thus, if these points are not considered and weighed up by recreational athletes, then the sanctioning of these individuals appears morally problematic.

Having outlined that a number of Welsh rugby players had not received anti-doping education and a number of Welsh rugby players have inadvertently committed ADRVs (Whitaker et al., 2017), we must also consider whether these athletes would contest anti-doping sanctions. Henning & Dimeo (2014) outline that a number of athletes did not contest doping cases, and the small number that did go through anti-doping appeals failed to have their sanction reversed. Due to the fact that a disproportional number of Welsh rugby players receive anti-doping sanctions (Whitaker et al., 2017), and are perhaps unlikely to contest anti-doping sanctions, a disproportionate number of recreational athletes will receive anti-doping sanctions and be excluded from sport for extended periods of time. When we consider that some athletes might not have received anti-doping education, commit ADRVs, receive anti-doping sanctions and do not contest these sanctions, I argue that is in disproportional and it is unjust to increase the length of anti-doping sanctions. What

is more, increasing the length of anti-doping sanctions appears to do little towards health protection and this is problematic when we consider the health concerns associated with doping substance use (Evans-Brown et al., 2009; Llewellyn, 2010).

5.5 Conclusion

In this section, I have considered the proposal of increasing anti-doping sanction length as a potential solution to strengthen ADP, to prevent doping and to better protect the health of athletes. Whilst increasing anti-doping sanction length might better prevent doping within recreational sport, I argue that this move is ethically indefensible within recreational sport. As I highlighted within the results chapter, the majority of recreational Welsh rugby players used doping substances to enhance their body image and not for sporting performance. These individuals wished to look better, not perform better and argued that they would continue to use doping substances no matter what the anti-doping sanction might be. Thus, the proposal to increase anti-doping sanction length does little to respond to the harms associated with doping substances. If these athletes were using doping substances to intentionally gain an advantage over fellow competitors, to achieve team selection, to win prize money, sponsorship deals or attain funding, then to increase anti-doping sanction length would appear more permissible. Notably, however, these individuals seemed unconcerned with sports performance. Sports participation was about fun, enjoyment and the social aspect. Thus, to increase anti-doping sanction length and to restrict athlete's ability to engage socially, I argue is disproportional. Moreover, when we consider the extent of anti-doping sanctions and the possibility that anti-doping sanctions might drive doping further underground and away from healthcare professionals (Evans-Brown et al., 2009), this is concerning. Anti-doping sanctions leave athletes emotionally vulnerable and I argue that it is unjustified to increase and expose these potential risks to these athletes. If we were to increase the length of anti-doping sanctions, we might expose athletes to unnecessary and exaggerated risks. Finally, some recreational athletes are unaware of their responsibilities when it comes to anti-doping and lack the relevant knowledge of their responsibilities. I argue that it is questionable to sanction these individuals when they have limited knowledge of APD. If these individuals have not received any formal anti-doping education, then these individuals have not had the opportunity to make informed

decisions. Thus, it is morally problematic to sanction these individuals, let alone consider increasing the length of anti-doping sanctions.

Having explored the proposals of increasing anti-doping control tests and extending the length of anti-doping sanctions, I consider a final proposal, the notion of criminalisation. Within the following section, I consider whether the criminalisation of doping within recreational sport could strengthen ADP compliance, protect doping free sport and protect the health of athletes. Here, I explore this notion and ethically examine this proposal.

5.6 Criminalisation of doping within recreational sport

In a final proposal, I consider and examine the notion of criminalisation to strengthen ADP, to prevent doping within recreational sport and better protect the health of athletes. Here, I will explore what this would mean for athletes and I challenge this proposal on two main fronts: (1) that criminal sanctions are not justified, nor proportional to the act of doping and rule breaking within sport and (2) that the criminalisation of doping is overly paternalistic.

5.6.1 Introduction

Currently, doping in sport falls at regulatory crossroads, with a number of countries (Germany, Italy, France, Spain) making it a criminal offence to dope, while others, including the UK and the U.S, pondering over making such a move (Diamond, 2018; Ruiz, 2018). With different countries taking different approaches to the criminalisation of doping in sport, this risks a disjointed anti-doping approach within different countries around the world. Moreover, some countries, including Denmark, have imposed criminal law on recreational athletes and gym users (Christiansen, 2011) and this adds to further anti-doping inconsistencies.

Due to the ongoing use of doping substances within sport, a growing body of literature has begun to examine the potential for the criminalisation of doping in sport (Kornbeck & Kayser, 2018; Sumner, 2017; Henning & Dimeo, 2017; Haas & Healey, 2016; Lowther, 2015, Stephens, 2013; Hoberman, 2011). Within the existing

academic literature, arguments were advanced on a number of grounds. These arguments pointed towards a notion of sports fraud, improving public trust, safeguarding the Spirit of Sport and improving anti-doping deterrence. Nonetheless, these arguments do not come without their critics. In the following section, I outline why doping within competitive recreational sport might be considered for criminalisation and later move to reject this proposal. I begin by exploring the purpose of anti-doping and outline some key concerns.

5.6.2 What is wrong with doping?

The WADA Code outlines that doping is harmful, contributes to unfairness and inequalities between athletes who use doping substances and those who do not and undermines key values within sport (WADA, 2020). Some academics have questioned these justifications, outlining that sport itself is harmful and there are a number of other inequalities accepted within sport. Moreover, it has been argued that drug use within sport helps support and promote many of the key values outlined by the WADA (Hemphill, 2009). Whilst there have been many challenges to ADP and its foundations, ADP aims to promote and protect a fundamental good. Without anti-doping rules in place, we would lose all that is valuable about sport and expose individuals to unnecessary risks. The use of doping substances within sport are undeniably problematic, risking the health of athletes who use doping substances and also the health of fellow competitors. Moreover, doping is coercive and younger athletes who are unable to make informed and independent decisions are potentially at risk and are encouraged to use doping substances. This is morally problematic and justifies their prohibition within sport, however, to suggest that doping ought to be criminalised within recreational sport appears disproportional and unjust.

Having outlined what is wrong with doping within sport, I move to consider what kinds of acts are considered for criminal and legal punishment. Here, I examine whether this criterion supports and justifies the criminalisation of doping in sport.

5.6.3 What constitutes consideration for a criminal act

In the search for some kind of justification to criminalise doping within recreational sport, I think it is first important to understand and explore the types of acts that might be considered for criminalisation and punishment. Duff & Hoskins (2019) write, crimes are, at least, socially proscribed wrongs — kinds of conduct that are condemned as wrong by some purportedly authoritative social norm.

Doping in both elite and recreational sport is considered wrong because it breaks sporting rules. Although some have more liberal attitudes towards drug use in sport, as long as anti-doping rules are being broken, the act of doping ought to be considered wrong. Not only is doping wrong because it breaks sporting rules, but it also risks the health of doping substance users and also fellow athletes (Evans-Brown et al., 2009; UKAD; 2020). What is more, some athletes might be coerced into using doping substances and this is particularly problematic when we consider younger athletes and children. If children are encouraged to use doping substances because of influential sources within a specific community, then this is problematic and warrants some kind of intervention. Due to the fact that doping is wrong and ought to be condemned and discouraged, some have argued that doping in sport ought to be criminalised (Sumner, 2017).

Having outlined what sort of acts ought to be considered for criminalisation and outlined that perhaps doping in sport meets this criterion somewhat, I move to consider what the criminalisation of doping might help achieve in sport.

5.6.4 What the criminalisation of doping would hope to achieve

Within this short section, I explore what criminal punishment aim to achieve and how criminal punishments would achieve these aims.

Duff et al., (2019) outlines that legal punishment involves the imposition of something that is intended to be both burdensome and reprobative (time, money, liberty), on a supposed offender for a supposed crime, by a person or body who claims the authority to do so. Now one might question how criminal punishment might differ from the current anti-doping sanctions, and I wish to point out that anti-

doping sanctions are perhaps little more than an inconvenience to recreational athletes.

During the interviews, a number of Welsh rugby players did not consider anti-doping sanctions to be a real deterrent and outlined that if they were to be caught using doping substances and were excluded from sport, this would not be the end of the world for these individuals. Whilst these individuals enjoyed playing rugby, their livelihoods did not rest on sporting participation and exclusion from sport would merely be a social hinderance for these individuals. Thus, anti-doping sanctions offered very little in means of deterrence, however, it is feasible to suggest that the criminalisation of doping might strengthen this aspect of ADP. If athletes perceived the range of punishments to be greater, it is possible that recreational athletes might think harder and more carefully about these decisions to use doping substances. If ADOs can better achieve anti-doping adherence with the introduction of criminal laws which better prevent doping, meaning fewer athletes experience harm and fewer might be coerced into using doping substances, then some will undoubtedly support a move towards the criminalisation of doping in sport. Whilst the criminalisation of doping appears to offer greater means of deterrence within anti-doping efforts, a UK report into the possible criminalisation of doping suggests that such a move would be disproportional to the act of doping (DCMS, 2017). The DCMS report concerns elite sport and I wish to argue that the criminalisation of doping within competitive recreational sport would be even more disproportional than within elite sport.

Having outlined the types of behaviours and acts that are considered for criminal law and possible punishment, I search for further concerns of such a proposal. I begin by exploring the notion paternalism.

5.6.5 Paternalism

In this short section, I move to reject claims suggesting we ought to criminalise doping within recreational sport based on the notion of paternalism. I argue by restricting an athlete's freedom in this coercive and oppressive manner, we risk inflicting harm to these individuals. I will begin this section by ensuring a firm understanding of paternalism is understood.

According to Dworkin (2020), paternalism ought to be understood as an intervention or interference of someone from another individual, against their will, but defended or motivated on the grounds that the individual will be better off or protected from harm. An example of paternalism can be found within drug laws or the law that you must wear a seatbelt whilst driving. Although an individual might want to use drugs or not wear a seatbelt whilst driving, the intervention or law, means the individual must adhere to those laws. If those laws are broken, and the individual is caught, the individual would likely to receive some kind of punishment. These punishments might be monetary fines or imprisonment. Both types of punishment would be considered detrimental and unwelcome by the individual, however, the law and punishment is justified on the basis that these laws promote and protect the health and well-being of the individual and wider public.

Having outlined the definitional boundaries of paternalism, I consider paternalism in two different lights: (1) paternalism can be used to justify anti-doping and potentially the criminalisation of doping and (2) a view which rejects that we should be intervening at all. I begin by exploring the notion that a paternalistic view could help support and defend the potential criminalisation of doping in recreational sport.

5.6.6 Positive Paternalism

If we accept that doping within sport is morally wrong and is harmful to health, one can begin to see how a paternalistic line might be offered to defend coercive interference such as the criminalisation of doping. If criminal laws were introduced and less athletes used doping substances, this might mean that less athletes experience harms to health. Accordingly, one can begin to understand how coercive and oppressive means such as the criminalisation of doping, might be considered and justified to strengthen ADP and to better protect doping-free sport and health of athletes.

Existing literature highlights the extent of doping within sport and the potential harms caused by the use of doping substances (de Hon et al., 2014; BBC, 2017; Evans-Brown et al., 2009; McVeigh et al., 2015). Due to the high estimated

prevalence of doping, the potential harms associated with the use of doping substances and the limited efficacy of anti-doping and its means of deterrence and prevention, it is clear that novel ways ought to be considered to strengthen ADP and to better protect athletes.

Whilst the criminalisation of doping would provide greater punitive powers to ADOs and NADOs, this does not necessarily mean that recreational athletes will stop using doping substances. During the interviews, a number of Welsh rugby players referred to breaking the law in a number of behaviours. Participant 21 states:

‘No, it depends on the significance. I break the law every day, I drive over 30mph so, if they say you’d be fined if you had them on you then who cares, if they said you’d have 10 years in prison then I’d think about it, maybe change my tone. You weigh up the risks and rewards, if it’s a slap on the wrist, you take that risk. There’s no point of you being jacked and spending 10 years locked in a cell’ (P.21).

Participants sometimes acknowledged that there was a law in place but outlined that the law did little to deter them from engaging in these types of behaviours. Whilst participants acknowledged that these behaviours were wrong and also acknowledged that they might receive some form of punishment if they caught, they decided to do so anyway. These athletes used these examples as reference points and outlined that if doping was to be criminalised, they would continue to use doping substances anyhow.

Although the criminalisation of doping could be defended on paternalistic grounds, in that it aims to protect the health of the athletes, there is some doubt about whether the criminalisation of doping would better protect the notion of doping-free sport and the health of athletes. Due to these uncertainties, the proposal to criminalise doping appears problematic. In the following section, I consider whether the proposal to criminalise doping is overly paternalistic and ought to be abandoned on these grounds.

5.6.7 Negative Paternalism

As I have previously pointed out, the majority of athletes included within this investigation were using doping substances to increase muscularity, improve body image and combat body image dissatisfaction. A number of participants thought that body image related goals were unattainable without the use of doping substances and whilst the use of doping substances inflicted harm to some athletes, a number of athletes reported elevated perceptions of health and mental well-being. The use of doping substances bought some individuals an increased level of satisfaction and a sense of fulfilment within their lives. These are important factors to consider when we explore whether or not we should enforce more serious and weighty punishments for the use of doping substances within recreational sport. These athletes have made a choice to use doping substances and although these actions go against the anti-doping rules, these individuals do not intend to cheat or attain some kind of performance enhancement over fellow competitors. Thus, we must consider the autonomy of these athletes. Questions ought to focus on whether restricting athletes' autonomy by imposing coercive criminal sanctions is fair, justified and proportional when the use of the same substances would be permissible within the general population.

5.6.8 Justified and proportional?

In previous accounts, academics have questioned whether anti-doping sanctions are justified and outline that 4-year doping sanctions for first time doping offences breach human rights (Exner, 2018). Furthermore, Kornbeck (2013) questions the foundations of the criteria for inclusion of substances and methods on the Prohibited List and points towards some potential inconsistencies with the Spirit of Sport clause. Due to these potential inconsistencies, it is argued, that those who receive anti-doping sanctions, will not be treated fairly and consistently. It is possible that some athletes might receive an anti-doping sanction, whereas a different athlete might commit a similar act, but not be punished in the same manner. Acknowledging this point, it is clear to see how inconsistencies might creep into the sanctioning process and threaten the principle of proportionality.

When we consider the criminalisation of doping in recreational sport, we are considering criminalising rule breaking. Although the criminalisation of doping might strengthen ADP and better prevent doping within recreational sport (Sumner, 2017), I argue that such a move is unjust. The criminalisation of doping could include fines or imprisonment and I argue that this move is morally problematic when we think hard about what is going on here. Below, I will explore some of the arguments against the notion of criminalisation of doping within recreational sport.

Anti-doping rules are like any other rule in sport. Consider the example of diving in football. Diving in football is against the rules and might mean an individual goes on to win a penalty or freekick. Now consider that the penalty or freekick is scored and the team goes on to win 1 - nil. Although it would be considered morally wrong to dive and win your team the penalty which wins you the game, we would not consider diving in football to warrant criminal sanctions. I argue the same should stand for doping in recreational sport. Doping in this sense, is a similar act, it is quite simply the act of breaking sporting rules. Whilst we place greater moral significance of different types of rule breaking, this does not justify and warrant criminal action. To criminalise doping, I argue, is disproportional when we also consider the other types of rules that are broken in sport and are not considered in any such depth.

Within elite sport where large sums of money, contracts, team selection and funding are available to the most successful athletes, the criminalisation of doping appears somewhat justifiable on the grounds of sport fraud (Sumner, 2017). Within recreational sport, however, where little is on offer for successful athletes, the criminalisation of doping appears far less justified and proportional. Within the interviews, Welsh rugby players outlined that they chose to play rugby because they enjoyed doing so, it gave these individuals something to do outside of work and provided a good social outlet for these individuals. Participant (10) describes the rugby culture within Wales:

‘It is massive, I think it is probably the biggest sport in Wales and for Wales as a country. As a youngster it is what you aim to be. Growing up I was always holding a rugby ball and it was always something I wanted to do - I think we punch above our weight as a nation and that captures the

imagination. I think the older you get, the more you start to realise that and the more immersed you become in the culture. I think at about 16 and coming into youth rugby it was more social and its social in the sense that you get along with opposing teams, it is like anything else, banter, social, you go to the rugby clubs and have a few beers and you do create a community feel to it' (P.10).

Rugby clubs formed part of the wider community and provided a social hub for many of these individuals. Participation in rugby was about fun, joy and the social aspect of sport and the use of doping substance was related to body image concerns. Thus, I argue that it would be disproportional to impose criminal sanctions of these individuals.

Within a UK Report into the possible criminalisation of doping in sport, it was argued that it would be disproportional to consider such a move (DCMS, 2017). The Report highlights that although doping in sport is a morally problematic concern, it does not justify criminal consideration within the UK. Instead, it suggests that longer periods of sporting illegibility ought to be considered as this would impact the income of athletes and that focus should be directed towards those who traffic, supply and manufacture these substances. Although this is a valid point, it is clearly aimed at elite sport where athletes rely on sporting income towards their livelihoods. Within recreational sport, however, where very few athletes would rely on the income of sporting participation, this point appears less meaningful.

Whilst the criminalisation of doping might better prevent doping behaviours, we must consider that criminal sanctions are coercive and would restrict the autonomy of individuals. Criminal sanctions are intended to cause inconvenience, they are intended to deter specific behaviours and they are intended to be unwelcome and burdensome (Duff et al., 2019). If the punishment of criminal sanctions is not any of these things, then the sanction would do very little in terms of deterrence and fail to prevent the problematic behaviour. If the criminalisation of doping exposed recreational athletes to additional harms, then I argue that this move is unjustifiable based on the fact that I am considering proposals to better protect the health of athletes.

Having outlined some issues related to proportionality and the potential justification of criminalising doping within recreational sport, I move to consider some practical concerns with this proposal.

5.6.9 Practical concerns

When we consider all three proposals that could perhaps strengthen ADP, better protect doping-free sport and better protect athlete health: (1) to increase the number of anti-doping control tests; (2) to increase the length of anti-doping sanctions; and (3) to criminalise doping, we must consider the possibility that recreational athletes sometimes use doping substances unintentionally. Research shows the 40% of ADRVs are committed inadvertently (Hong et al., 2020), and further research suggests that few athletes were truly at fault when ADRVs were committed (de Hon & Bottengurg, 2017). What is more, (Whitaker et al., 2017) reports that a number of Welsh rugby players pleaded some form of innocence within anti-doping hearings, stating the naïve use of supplements and lack of anti-doping knowledge contributed to a positive anti-doping test. It is feasible to suggest that if we were to increase the number of doping control tests within recreational sport, this would increase the probability of inadvertent doping offences. Whether this be through lack of anti-doping knowledge or naivety, this would mean a number of athletes would experience anti-doping sanctions for unintentional doping offences. Moreover, whilst the current sanctioning of these athletes is problematic enough, if we increase sanction length or impose criminal sanctions on doping athletes, this further increases the risk to recreational athletes. Below, I consider some of the examples that might lead an athlete to unintentionally test positive and explore what this would mean for the athlete.

Consider the use of a tainted nutritional supplement. Research has shown legitimate nutritional supplements may contain prohibited substances or ingredients. These ingredients are sometimes not listed on the label and athletes could test positive within an anti-doping control test (Maughan, 2005; Geyer, Parr, Koehler, Mareck, Schänzer & Thevis, 2008). Moreover, consider the use of various medications. It is feasible to suggest that a recreational athlete might have a medical condition and be

prescribed medication to treat that specific condition. If that medication contained a prohibited ingredient, then the athlete might test positive within anti-doping control test. Within elite sport, an athlete would need to be granted a Therapeutic Use Exemption, a certificate that allows athletes to legitimately use a prohibited substance (Cox, Bloodworth & McNamee, 2017; Bloodworth, Cox, McNamee, 2019; WADA, 2020). In addition, there have been cases where athletes have consumed contaminated meat and tested positive within anti-doping control tests (UKAD, 2019; WADA, 2019). Moreover, anti-doping control tests sometimes lack efficacy and have previously reported false positives (Kayser et al., 2007). Finally, there are some specific substances that are difficult to detect and the use of HGH by some athletes has led to some controversies. Anti-doping tests have long struggled to determine between naturally occurring and synthetic versions of HGH. The hormone is not detectable in urine, and blood concentrations of the hormone can be affected by exercise and stress. When HGH is excreted, it is done so in high quantities, causing a spike of HGH concentrations within the blood. These concentrations then slowly drop back down to within normal and then below normal levels. Thus, HGH concentrations vary and are subject to natural change (Saugy, Robinson, Saudan, Baume, Avois & Mangin, 2006). When we consider these factors together, there appears to be a number of potential examples whereby an athlete might face anti-doping charges and be held accountable for unintended ARDVs. Due to these practical concerns, I find it challenging how we could justify increasing the length of anti-doping sanctions or consider criminalising doping.

Having outlined some of the concerns with the proposal of criminalising doping within recreational sport, I will now offer a short conclusion.

5.7 Conclusion

During the interviews, recreational Welsh rugby players outlined that they use doping substances and sometimes experience harm. Due to the significance of these health concerns, I propose three different policy responses: (1) to prevent doping; (2) to allow doping; and (3) to supervise doping. Within this section, I have explored and ethically examined what it would mean to prevent doping. To prevent doping, I have explored the possibility of strengthening ADP. To achieve this, I considered

increasing the number of anti-doping control tests within recreational sport, increasing the length of anti-doping sanctions within recreational sport and the criminalisation of doping within recreational sport.

Although I am willing to concede that each of these moves might improve ADP compliance and better protect the notion of doping-free sport, I argue that each of these three moves are littered with ethical concerns that cannot be justified nor defended. Moreover, I argue that each of the proposals to strengthen ADP risks exposing athletes to additional harm and due to these concerns, I move to reject the proposal, to prevent doping. In addition, due the fact that a number of athletes outlined that they would simply continue to use doping substances outside of sport, this raises further concern. If these individuals continue to use doping substances outside of sport, then these individuals will likely experience the same kinds of health risks outside of sport. In this instance, the health of these individuals would not be better protected, and I argue that this is deeply problematic when we consider the potential and serious nature of the harms associated to the use of doping substances (Evans-Brown et al., 2009; McVeigh et al, 2015). Moreover, these health risks are a clear concern for public health, and I argue that it is morally problematic to ignore such concerns. Having rejected the proposal to strengthen ADP and to prevent doping within recreational sport, I move to consider the second proposal, to allow doping within recreational sport.

ALLOW DOPING:

ABANDON ANTI-DOPING AND ALLOW DOPING

6.1 Introduction

As highlighted within the results chapter, I identify how the WADA struggles to fulfil its fundamental aims to protect doping-free sport, sporting integrity and the health of athletes (WADA, 2020). Due to the significance of the health concerns associated with the use of doping substances (Evans-Brown et al., 2009; Llewellyn, 2010; McVeigh, Bates & Chandler, 2015), I consider three different policy responses to the use of doping substances within recreational sport. As previously pointed out, the three-policy response is adapted from another risk-taking practice: self-harm (Edwards et al., 2011). The three responses are: (1) to prevent it; (2) to allow it; (3) and to supervise it. Edwards et al., (2011) discusses the implications of the three different responses in the context of self-harm and I adapt this framework to respond to the notion of doping within recreational sport.

Within this chapter, I will explore the second policy response, to allow it. Before I take this proposal further, it is important to understand what I mean when I discuss, to allow it. To allow it, I mean to allow doping within recreational sport. This would mean the abolishment ADP and allowing recreational athletes to use doping substances within sport. This approach would not make any provisions to better ensure the health of athletes, it would simply withdraw all responsibilities and allow athletes to use any type of doping substances if they wanted. Within this section, I discuss the notion of allowing doping within recreational sport and ethically examine some of the potential justifications and objections towards this proposal. Here, I will consider and critically analyse what allowing the use of doping substances would mean for recreational athletes and how this might impact elite sport.

Allowing the use of doping substances within sport could be one way of allowing individuals to remain autonomous in their choices and actions. Moreover, allowing

doping does away with coercive nature of anti-doping policy and better ensures athlete privacy is respected. In addition, there is some suggestion that recreational athletes receive a disproportional number of anti-doping sanctions (Whitaker et al., 2017; Johannsen, 2018; Johannsen, 2019), and by allowing doping within recreational sport, this does away with fears around potential injustices. However, if we were to permit doping within recreational sport, this might encourage more individuals to use doping substances and increase the number the individuals who experience harm. Within the following section, I explore the notion of permitting doping within recreational sport and ethically analyse this proposal. I begin by exploring the notion that allowing the use of doping substances within recreational sport allows athletes to be autonomous in their decisions, choice and actions.

6.1 Ethical Concerns

Within this section, I will examine ethical concerns associated with allowing doping within recreational sport. I begin by discussing the notion of autonomy.

6.1.1 Autonomy

To abolish ADP and to allow doping within recreational sport requires good reason and within the first consideration, I examine whether the notion of autonomy can be offered and defended as a sound justification to allow doping within recreational sport.

The first argument in favour of allowing doping within recreational sport concerns the notion of autonomy. The premise here, by allowing doping, we facilitate individuals to act autonomously. In this sense, it is important to note and understand what I mean when we discuss the term autonomy. Christman (2018) outlines that autonomy is the condition to live and make decisions in accordance with one's own motives and free from external forces or influence. Thus, in the context of this argument, if we were to allow doping, we would do away with anti-doping rules that prohibit athletes from using doping substances. Facilitating the notion of autonomy appears important when we consider the responses given during the interviews and the motivations behind the use of doping substances.

Within the current investigation, Welsh rugby players outlined that they mainly used doping substances for body image concerns. The use of doping substances was to correct personal insecurities, to improve body image and boost self-confidence. These individuals believed that the use of doping substances was sometimes the only way to achieve these body image ideals and without these doping substances, these individuals would be worse off and would continue to suffer with personal insecurities and body image dissatisfaction. In a previous study, high levels of body image dissatisfaction had been identified amongst rugby players (Mills et al., 2017) and Kanayama et al., (2020) outlines that body image dissatisfaction might drive individuals to consider the use of AAS. Thus, to allow athletes to use of doping substances within recreational sport, appears to allow individuals to pursue their desires, correct personal insecurities and rectify body image dissatisfaction. By respecting these wishes and desires, we allow for and facilitate the conditions of autonomy and in doing so, enable individuals to achieve a sense of flourishing and fulfilment within their life.

Whilst allowing the use of doping substances within recreational sport might allow individuals to attain greater body image satisfaction and facilitate some of the conditions of autonomy, I question whether this argument can be used to justify and defend the abolishment of ADP. Although the autonomy of athletes might be better respected, abolishing ADP would not better protect the health of athletes. This is problematic when we consider the serious nature of the harms associated with doping substance use (Evans-Brown et al., 2009; Llewellyn, 2010; McVeigh et al., 2015), and the experiences of harm detailed during the interviews.

As highlighted previously, the use of many doping substances included on the WADAs Prohibited List are not illegal and they can be freely used by the general public. This is concerning when we consider the evidence supporting the harms associated with the use of some of doping substances (Evans-Brown et al., 2009; Llewellyn, 2010; McVeigh et al., 2015). Currently, ADP plays an integral role within health promotion efforts, not just within sport but also within the general public. ADP acts to prevent and deter the use of potentially harmful doping substances and it does this through doping control tests, anti-doping sanctions and education (WADA, 2020). If we were to abolish ADP and allow doping within recreational sport,

additional use of doping substances might occur. Not only would the prevalence of doping substance use likely increase, but also the occurrence of harm. Not only does this represent a concern for sport, but it would also represent a public health concern (McVeigh et al., 2017; UKAD, 2019). Thus, to abolish ADP and to allow doping within recreational sport on grounds that it better supports the conditions of autonomy, I find morally problematic and move to reject this claim.

Having examined the notion of autonomy, I move to consider the coercive notion of ADP and outline if anti-doping rules were to be abandoned, so would the concerns around the coercive ADP.

6.1.2 *Coercion*

In this short section, I highlight how the current ADP is coercive and consequently, threatens several ethical principles. Due to this notion, I consider whether the abolishment of anti-doping and to permit doping within recreational sport would do away with these ethical concerns.

The second argument that I examine and critically consider which would allow doping within recreational sport considers that ADP is coercive. Coercion, in this instance, should be understood as a method or approach to force someone not to do something (Anderson, 2017). ADP employs a range of approaches in an attempt to prevent and deter athletes from using doping substances. These include, punitive anti-doping sanctions, up to four-years for a first-time doping offence, with possible reductions within recreational sport down to two-years (WADA, 2020). Within this short section, I explore whether the current ADP and its coercive approach is enough to abandon ADP completely.

During the interviews, athletes demonstrated strong desires to use doping substances. Athletes were highly motivated to use doping substances based around body image concerns and muscularity. A number of athletes perceived that their body image ideals were unattainable without the use of doping substances and felt that the use of doping substances helped them achieve greater self-confidence and body image satisfaction. Notably, however, ADP prohibits individuals from using doping

substances and I argue that restricting the autonomy of these athletes is coercive and inhibits these individuals from pursuing an enhanced satisfaction within their personal life.

Although anti-doping rules can be defended on the grounds of paternalism in that they aim eradicate doping and protect athlete health, the main aim of the WADA Code is to challenge cheating in sport through the use doping substances. The WADA Code restricts individuals from using doing substances and if an athlete breaks anti-doping rules and commits an ADRV, an athlete may face an anti-doping sanction. An anti-doping sanction will range in severity depending on the doping offence committed and will likely be burdensome to the athlete. Both anti-doping rules and the anti-doping sanctions that sometimes follow, are intended to dissuade, deter and prevent the use of doping substances. Whilst it is clear that elite athletes use doping substances to enhance sports performance (Bloodworth et al., 2010), this claim is far less clear within recreational sport (Christiansen et al., 2020). In fact, the participants within the current investigation largely overlooked sports performance completely and were more concerned with body image. Thus, some of these athletes did not think of their use of doping substances as cheating, as enhancing sports performance was not a primary goal. Due to the fact that some participants thought of their drug use unrelated to sports performance, a number of these individuals did not think that they should be restricted from using doping substances. Moreover, as a number of athletes perceived that doping substances improved body image satisfaction and with that, their quality of life, being restricted by sporting rules and ADP did not sit kindly with a number of these individuals. For these participants, ADP can be considered coercive, ADP restricts autonomy as it intends to dissuade and force athletes into not using doping substances. To these individuals, anti-doping rules were perceived as problematic as these individuals were unable to pursue body image ideals, and this ought to be considered within the possible abatement of ADP.

It is also notable that doping control tests are also coercive in that if an athlete were to refuse the doping control test, this would be an ADRV and mean that the athlete would face an anti-doping sanction. This gives an athlete little other choice but to provide a blood/urine sample to the doping control officer. Due to the possibility of

an anti-doping sanction if a doping control test was refused, this aspect of ADP can be considered coercive as it restricts the choice of an athlete and somewhat forces an individual to provide a sample. This is undeniably coercive, ethically problematic, and threatens privacy and autonomy. Again, this ought to be considered when we discuss the possible abandonment of ADP. If doping control tests force athletes into problematic and difficult decisions, then the abandonment of ADP must be weighed up. If ADP were to be abandoned, athletes would be free to use doping substances and face no sporting repercussions for doing so. Athletes would be free from coercion and be able to act autonomously when deciding to use doping substances or not. This appears particularly important when considering some of the perceived benefits of doping substance use and the potential invasion of privacy related to doping control tests. Nonetheless, although current ADP may well have coercive elements, it is intended to protect doping-free sport and the health of athletes. Due to the serious nature of the health concerns associated with the use of doping substances (Evans-Brown et al., 2009; Llewellyn, 2010; McVeigh et al., 2015), I argue that the coercive elements of current ADP are somewhat justified due to their aim to ensure and protect the health of athletes. Justification of ADP can be sought upon paternalistic grounds and although not perfect, ADP intends to protect and promote this fundamental good. Thus, on grounds of coercion alone, I move to reject claims that ADP ought to be abandoned.

In the following section, I consider that if we were to allow doping within recreational sport, we would do away with the concerns around shame and stigma associated with doping substance use. Feelings of shame and stigma have been noted to impact the willingness of individuals to engage with healthcare professionals and within the following section, I question whether the abandonment of ADP would respond to these concerns.

6.1.3 *Sanctions, shame and stigma*

In a recent paper, Hong et al., (2020) reports that anti-doping sanctions have led to a number of unintended consequences, including feelings of depression and suicide amongst those athletes who have been sanctioned. This is concerning for the individuals implicated and with a disproportional number of anti-doping sanctions

within lower levels of Welsh rugby (Whitaker et al., 2017), this further exaggerates these concerns. Not only do anti-doping sanctions prohibit athletes from competing within any type of organised sport, but they also have implications with regards to social shame, stigma and potential loss of income (Bloodworth et al., 2010; Overbye et al., 2015). These unintended consequences are perhaps more concerning than the sporting ban itself and this is worrying when we consider these individuals within wider communities and society. If these individuals feel like they have bought shame to their families and friends, it is possible that these individuals will struggle with self-worth and dignity. Whilst the punitive nature of ADP appears somewhat necessary to better achieve anti-doping compliance, it appears questionable at the expense of athletes' health and well-being. Moreover, with the possibility of media reports publicising doping cases within both elite and competitive recreational sport, this risks the privacy of these individuals (Kayser & Møller, 2020). If the personal information of these individuals is exposed through media reports and is published within the wider community, these individuals might lose a sense of ownership over their personal and private information. Although the 2021 Code makes provisions for public disclosure of recreational athletes, ARDVs and anti-doping sanctions (WADA, 2020), this does not do away with all of these concerns. Shame, stigma and emotional vulnerability will still remain, and this is concerning when we consider the health and wellbeing of athletes. If we were to abolish ADP and allow recreational athletes to use doping substances, then this might do away with damaging perceptions around the use of doping substance and reduce potential shame and stigma.

Kayser et al., (2015) reports that the punitive anti-doping system has contributed to harmful perceptions around the use of doping substances and this contributes to distrust and stigmatization. Moreover, during the interviews, a small number of participants reported that they perceived there to be stigma associated to the use of doping substances. This meant that these individuals did not seek the appropriate medical advice they required. Participant 17 outlies:

‘Well it is illegal - its legal status I felt that I couldn’t ask about it and the way it’s looked at and stigmatized - in hindsight, I would next time just to be safe as you do hear stories. The way its stigmatized, the stereotype you get, I

wouldn't want that label. I would expect a doctor to tell me not to take it, this is what happens to your body - that's why I didn't ask - it's not what I wanted to hear, I just didn't ask. So really, yeah, I got all the information from unofficial sources' (P.17).

This is concerning when we consider the significance of the harms associated with the use of doping substances (Evans-Brown et al., 2009; Llewellyn, 2010; McVeigh et al., 2015). Wider literature has also highlighted the potential of anti-doping to drive the use of doping substances underground and some users demonstrate an unwillingness to engage with healthcare professionals (Brower, 2009; Evans-Brown et al., 2009; Kayser et al., 2015 Havnes & Skogheim, 2019). Thus, the proposal to allow doping, appears to offer some potential here. By allowing doping in recreational sport, this might do away with the associated stigma and distrust and encourage individuals to be more open about their drug use. This might improve doping substance users' willingness to engage with healthcare professionals and reduce the likelihood of health risks (Holm, 2007). Nonetheless, the use of doping substances would likely continue and additional individuals who had previously not considered the use of doping substances might initiate doping substance use. If the use of doping substances became morally accepted within sport and within the general public, it is possible that this growing public health concern (McVeigh et al., 2017; UKAD, 2019), will only increase its intensity.

Although anti-doping sanctions are coercive and might lead to a number of unintended consequences, this ought not mean we abandon ADP altogether. ADP aims to protect the health of athletes (WADA, 2020), and although recreational athletes detailed significant perceived harms during the interviews, this does not justify the abatement of ADP completely. If we were to allow the use of doping substances within recreational sport, I argue that this would risk the potential of additional doping use and additional harms to health. Although not perfect, ADP seeks to promote health and provides valuable contribution to health promotion not just within sport, but also within the general public.

Next, I consider the potential justification that anti-doping ought to be abandoned within recreational sport based on the grounds of privacy concerns.

6.1.4 *Privacy*

Within this short section, I consider how the current ADP threatens athlete privacy and if we were to abolish anti-doping, we would do away with these privacy concerns.

A third argument in favour of the abolishment of anti-doping rules and to permit doping within recreational sport concerns the notion of privacy. For the purpose of this short section, privacy ought to be understood as having control over information about oneself and the condition of privacy is said to be necessary for human dignity, intimacy and the development of varied interpersonal relationships (DeCew, 2018). I argue that anti-doping control tests are invasive, they threaten privacy and this ought to be considered as a potential justification to abolish ADP within recreational sport.

Currently, anti-doping tests are invasive, they require an athlete to expose their genitals to a stranger who has to witness the full passing of urine (WADA, 2020). Testing requirements means that an athlete has to expose themselves, knee to bellybutton, offering an uninterrupted view of the full passing of urine from the genitals. Elbe et al., (2014) highlights that athletes experienced pressure when providing a urine sample and this exposes individuals to potential harms. This is concerning when we consider the conditions of privacy and concerns are exaggerated even further when we also consider that minors can also be subjected to the same testing protocols. Moreover, anti-doping tests can occur in-and-out of competition for both elite and recreational athletes. This is undoubtedly invasive and doping control officers may turn up unannounced at any point (WRU, 2019; WADA, 2020). Undeniably, anti-doping tests breach a number of usually respected ethical principles, and the privacy concerns associated with doping control tests are deeply problematic.

Conceding bodily modesty to doping control officers is a direct threat to personal and bodily integrity and I question whether these invasive anti-doping control tests can be truly justified. Recreational athletes who go through doping control tests will experience a level of discomfort and distress when exposing themselves to a stranger

(Elbe et al., 2014), and it is questionable in what other instances in life would warrant such significant invasions of personal privacy. Here, it is also worth mentioning the extent of which recreational athletes have signed up to ADP. Within recreational sport, there are few formal commitments to ADP and some athletes might be unaware of what they are signing up to when they participate within sport. Through participation, athletes consent to the terms of the WADA Code (WADA, 2020) and consent to various breaches of typically respected ethical principles. The level of understanding within these contractual agreements is problematic and it is questionable whether recreational athletes fully acknowledge their commitments to the WADA Code. If athletes are unaware of these commitments, then it appears somewhat questionable how these individuals could be subjected to such invasive protocols.

If we were to abandon anti-doping within recreational sport and allow athletes to use doping substances, there would be no need for anti-doping control tests. Abolishing ADP and doping control tests would better ensure that personal privacy is respected, and bodily modesty and bodily integrity are upheld. In addition, recreational athletes would not be put through the distress or discomfort of having to reveal their genitals to a complete stranger (Christiansen et al., 2011; Elbe et al., 2014). Whilst these athletes will retain greater privacy, bodily modesty and autonomy, abolishing anti-doping completely and allowing these individuals to freely use doping substances within recreational sport appears morally problematic. Not only does ADP aim to prevent and deter doping substance use within sport and better ensure sporting integrity, but ADP also aims to protect the health of athletes (WADA, 2020). If anti-doping tests deter just one individual from considering the use doping substances within sport, this reduces the likelihood of health risks for that individual. Without anti-doping restrictions in place, more athletes will likely use doping substances and an even greater number might experience adverse health consequences associated with the use of those substances (Evans-Brown et al., 2009; Llewellyn, 2010; McVeigh et al., 2015). Whilst I am willing to concede that doping control tests are invasive and violate privacy, I argue that these harms can be somewhat justified on the grounds of a common good. ADP aims to protect the health of athletes (WADA, 2020) and although recreational athletes reported harm during the interviews, without ADP in place, I argue that additional doping substance use would occur with

the increased likelihood of harm also increasing. Moreover, athletes have a choice as to whether they participate within sport and by choosing to participate, I argue, that these individuals are agreeing to a set of prescribed rules. Thus, privacy concerns associated to doping control tests can be justified on the grounds that athletes have been given an opportunity to participate or not and agreed to these rules and regulations. These rules aim to protect sporting integrity and the health of athletes and without such procedures in place, it is feasible to suggest that greater harms could come to these individuals.

Next, I consider that there are various aspects of ADP which appear to threaten fairness and proportionality. Here I explore these aspects of ADP and questions whether they justify the abolishment of ADP.

6.1.5 Fairness

Within this short section, I consider various aspects of ADP that might contribute to unfairness and injustices between athletes. Considering the principle of fairness in different lights, I suggest how abolishing anti-doping and permitting doping would do away with these concerns.

Over the years, there has been some suggestion that anti-doping sanctions have been inconsistent, and the literature suggests that there have been inconsistencies between the length of anti-doping sanctions imposed on athletes for similar doping offences (Duffy, 2013). Inconsistent application of anti-doping policy, whether this be through interpretation or application, means that some athletes might experience greater anti-doping scrutiny than another athlete. These inconsistencies are problematic and potentially lead to inequalities between different athletes, in different sports and in different countries depending on how ADP is implemented and enforced.

Within New Zealand, there is evidence that the NADO's (DFSNZ) has over-sanctioned recreational athletes, with a number of athletes having been handed anti-doping sanctions for questionable and disputed breaches of anti-doping policy (Johannsen, 2018; Johannsen, 2019). These applications of anti-doping policy can be

questioned, with inconsistent applications of ADP contributing to unfairness and inequality between athletes.

Within Welsh rugby, a disproportional number of recreational Welsh rugby players have received anti-doping sanctions (Whitaker et al., 2017). Whitaker et al., (2017) reports that the majority of athletes plead some kind of innocence, with the naïve use of nutritional supplements being amongst some of the excuses. If different NADO's are implementing ADP differently within different countries and within different sports, this might lead to inconsistencies and unfairness between different athletes. Due to this potential unfairness, the abolishment of ADP appears to do away with any concerns associated to unfairness and proportionality. During the interviews, only a small number of recreational Welsh rugby players stated they had received some kind of formal anti-doping education. This meant that some rugby players lacked the relevant anti-doping knowledge, with some questioning whether they could be subjected to doping control tests and others questioning whether the substances they had used were prohibited or not. Moreover, within the WRU anti-doping protocol document, the WRU outlines that anti-doping education is weighted more heavily towards elite athletes or towards rugby players within rugby academies (WRU, 2019). When we consider that recreational Welsh rugby players receive a disproportional number of anti-doping sanctions, with some claiming these were unintentional breaches of ADP (Whitaker et al, 2017), it is unfair why the WRU would not focus more of its resources on recreational athletes. If athletes have not been given a fair and equal opportunity to access anti-doping information, yet are largely sanctioned in the same manner as elite athletes, then this appears to raise inequalities between the level of sporting participation. If that means more recreational athletes will receive anti-doping sanctions, I find this problematic and argue that this could be offered as a potential justification to abolish ADP.

Finally, Hong et al., (2020) reports that up to 40% of anti-doping sanctions are committed inadvertently and whilst this figure ought to be treated with some caution, it sheds light of the significance of the problem. Whilst ADP acknowledges that an athlete can unintentionally consume doping substances and offers reduced sanction length from 4 to 2 years (WADA, 2020), the burden of proof is left down to the athlete. Now, within elite sport, whereby athletes have teams, sponsors and

significant financial resources, challenging anti-doping sanctions appear less daunting and more likely. The same, however, cannot be said for recreational athletes. It is possible that recreational athletes might find themselves alone in their attempts to prove their innocence and it is possible that they might not have the same financial means and recourses to defend themselves in the same way as elite athletes. This again raises concerns when we consider applications of ADP between level of sports participations and suggests that recreational athlete might be at a disadvantage when compared to elite athlete. This again raises the notion of inequalities between athletes and potential unfairness. If recreational athletes cannot defend themselves in the same manner as elite athletes, then they may well receive weighty and disproportional sanctions when compared to elite athletes.

Whilst the abolishment of ADP might better ensure fairness and proportionality, athletes will continue to use doping substances. This is concerning when we consider the potential health risks associated with the use of those substances (Evans-Brown et al., 2009; Llewellyn, 2010; McVeigh et al., 2015) and the potential threat to public health (McVeigh et al., 2017). What is more, although allowing doping would do away with concerns around inconsistent applications of ADP, unfairness and disproportionality, if recreational athletes had aspirations of playing at a higher level of sport, then allowing the use of doping substances within recreational sport would be problematic. Not only would this represent a potential health risk to these athletes, but it would also threaten sporting integrity and put recreational athletes at an unfair advantage over clean competitors. Thus, abolishing ADP and allowing the use of doping substances within recreational sport does not appear to be an ethical response to doping within recreational sport.

In the next section, I outline some of the health concerns associated with doping and explore how abandoning ADP might better protect health.

6.1.6 *Health*

One of the aims of ADP is to protect and promote the health of athletes (WADA, 2020). Whilst some have challenged this notion, stating that there are many aspects of sport which are unhealthy (Murray, 2017), ADP undoubtedly attempts to better

protect athlete health. Within this short section, I explore the notion that ADP struggles to protect athlete health, and whether this offers justification to abandon ADP within recreational sport.

Within the WADA Code, health is cited amongst the foundational pillars of Code (WADA, 2020), and within the revised 2021 Code, the WADA places even greater emphasis on the notion of health (WADA, 2020). Whilst the WADA and ADP aim to protect athlete health, during the interviews, I noted several aspects of ADP which inhibited the aim of health protection. Current ADP appears to do little to deter doping behaviours or prevent Welsh rugby players from using doping substances. Failure to prevent or deter doping meant that some individuals continued to use doping substances and consequently, experienced adverse health conditions. Due to the failure of ADP to protect health, some might see this as a justification to abandon ADP and to permit doping within recreational sport. Moreover, due to the punitive anti-doping system, it has been argued that some individuals will not seek the appropriate information and advice from healthcare professionals (Evans-Brown et al., 2009). If we were to abolish anti-doping rules, we might increase the engagement of doping substance users with healthcare professionals as there would be less stigma associated with the use of doping substances. By increasing engagement between doping substance users and healthcare professionals, this might better protect the health of doping substance users and this provides some justification towards the abandonment of ADP.

Mulrooney et al., (2019) outlines that the punitive approach from anti-doping organisations has contributed to stigma and distrust within the general public. Also fueled by media reports, these harmful perceptions drive doping substances use underground and away from the healthcare professionals. Within the interviews, some rugby players did not access specific harm reduction services due to the fear of stigmatisation they might receive from the public or healthcare professionals. Not only does the current ADP fail to ensure and protect athlete health, but ADP also inhibits harm reduction services (Evans-Brown et al., 2009). If we were to abolish the punitive anti-doping system, this might combat public distrust and associated stigma around the use of doping substances. Reducing the stigma associated with doping substance use might increase the uptake of harm reduction services and

improve recreational athletes' willingness to engage with healthcare professionals. By better ensuring these steps, the health of these individuals will be better protected, responding directly to the most morally problematic theme to surface during the interviews.

A number of academics have suggested that ADP ought to be abolished, however, these arguments are defended on the grounds that ADP is revised so that the health of individuals is better protected (Savulescu et al., 2004; Kayser et al., 2005; Wiesing, 2011; Kayser et al., 2017). It is suggested that doing away with the current ADP and allowing athletes to use doping substances, we could better control what doping substances are being used and better support athletes through doping experiences. It is argued that this could be achieved by implementing cut-off levels for doping substances and testing for health markers (Kayser et al., 2012; Kayser et al., 2015; Kayser et al., 2017). Whilst these approaches may well better protect athlete health, you will always have athletes who cross boundaries and attempt to push above and beyond those specified cut-off limits (Holm, 2007). It is also important to note that when I suggest allowing doping within recreational sport, I mean in every sense and without supervision. Thus, the arguments which suggest that the health of athletes could be better protected if doping was permitted under medical supervision do not hold here. Doping under medical supervision is something I explore in a third policy response; to supervise it. Accordingly, I reject the argument that abolishing anti-doping and permitting doping within recreational sport could better ensure athlete health.

Having examined and discussed the notion of health, I move on to consider the notion of unfair performance enhancement as a potential justification to abolish ADP and to permit doping within recreational sport. Here, I consider that there are a number of athletes who are able to dope and get away with it, leading to unfairness. Due to this potential unfairness, I question whether abolishing anti-doping within recreational sport responds to these concerns.

6.1.7 Performance Enhancement

Within the current ADP, it is noted that performance enhancement falls amongst one of the more foundational justifications for anti-doping policy within sport (Bloodworth et al., 2017; WADA, 2020). In theory, performance enhancement appears a sound justification to prohibit doping in sport, however, ADP struggles to ensure doping-free sport (de Hon et al., 2014; Ulrich et al., 2018; WADA; 2019; WADA; 2020). Moreover, during the interviews, a number of Welsh rugby players reported that they were able to use doping substances throughout the course of the season and remain undetected and unknown to anti-doping authorities and NADOs. Thus, these individuals were able to attain some kind of performance enhancement over fellow competitors, leading to inequalities and unfairness. In the following section, I examine this argument further.

Within the interviews, it was clear that a number of recreational Welsh rugby players used doping substances within sport and were able to evade anti-doping controls. Whilst the WADA outlines performance enhancement to be one of its central justifications to prohibit the use of doping substances within sport (WADA, 2020), NADO's appear to fail in their responsibilities to deter, detect, prevent and catch all doping athletes. This is evidenced within the prevalence statistics, both in terms of athletes caught doping, at around 1 - 2% (WADA, 2019), and the estimated prevalence statistics of athletes who use doping substances, at 14 - 39% (de Hon et al., 2014; Ulrich et al., 2018). Whilst these estimated prevalence statistics are related to an elite athletic population, they outline some of the struggles to ensure doping-free sport and the fact that a lot more athletes are perhaps using doping substances than those that are caught. Due to the struggles to prevent and detect doping, some athletes are able to attain some form of performance enhancement over competitors who do not use doping substances. This type of performance enhancement would be considered unfair, as not all athletes are using these doping substances. Due to the fact that doping athletes would be at an advantage over clean competitors, the abandonment of ADP might be one way to overcome these concerns. Although the abandonment of ADP might respond to the notion of potential unfairness, it is possible that additional athletes might use doping substances. Once again, this is concerning when we consider the potential and serious nature of the health risks associated with doping substance use (Evans-Brown et al., 2009; Llewellyn, 2010;

McVeigh et al., 2015). Due to these health concerns, allowing doping within recreational sport appears morally problematic.

Within the current investigation, the majority of rugby players were attempting to improve body image, however, there were one or two individuals who mentioned performance enhancement to be amongst their motivations to use doping substances. Moreover, even though the majority of individuals included within this investigation did not intend to enhance their sports performance, the use of doping substances may have indirectly influenced performance. Thus, it is possible that a number of recreational athletes gained a performance advantage over their fellow competitors. Whether it be intentionally or unintentionally, the use of doping substances might contribute performance enhancement and lead to inequalities between athletes who use doping substances and those who have not. For that reason, if anti-doping were to do away with anti-doping controls within recreational sport, we would do away with concerns around performance enhancement, unfairness and inequalities. If all athletes have fair and equal opportunity to use doping substances, any performance enhancement would be considered fair, because all athletes would have fair and equal access to the use of those doping substances and the performance enhancement that might bring. Thus, abandoning ADP and allowing recreational athletes to use doping substances, appears to better eradicate potential inequalities when performance enhancement is considered and provides athletes with equal opportunities to access performance enhancement.

Although performance enhancement through the use of doping substances might lead to inequalities and unfairness between athletes, this does not warrant such sweeping changes to ADP. To permit doping and to allow the use of doping substances within recreational sport, appears morally questionable when we consider the range of potential harms associated with the use of doping substances (Evans-Brown et al., 2009; Llewellyn, 2010; McVeigh et al, 2015). These harms can be serious and sometimes life threatening and to allow individuals to risk their health without support, guidance or access to harm reduction services, appears morally problematic. I argue that sport organisations and public health bodies have a duty of care towards these individuals that engage in these activities and to permit doping and to ignore health concerns, is wrong and ethically indefensible. Moreover, allowing recreational

athletes to use doping substances might increase the number of individuals who consider and use of doping substances. During the interviews, a number of individuals outlined that doping substance use within gyms encouraged personal use and the coercive nature of these environments should not be overlooked or ignored. If we were to abolish anti-doping, a number of individuals might feel the need to use doping substances and experience pressure to keep up with other individuals to use these kinds of substances. Whilst I acknowledge that athletes continue to use doping substances and sometimes experience harm, the abolishment of ADP does not ethically respond to these struggles. Due to the ethical concerns associated to the proposal of allowing doping within recreational sport, I move to reject this policy recommendation. What is more, I argue by allowing doping, we do not respond to the most problematic concern to surface during the interviews, harms to health. By allowing doping, we would likely increase the risk to health and also likely increase the risks associated to public health, something identified as a growing concern within previous literature (McVeigh et al., 2017; UKAD; 2019)

In a final consideration within this chapter, I consider some of the practical concerns associated to ADP which ought to be considered when attempting to justify allowing doping within recreational sport.

6.3 Practical concerns

Within this short section, I consider some of the practical concerns related to the current ADP within recreational sport and consider whether these concerns are significant enough to justify the abolishment of ADP.

First, it is important to point out that some reports suggest that anti-doping tests lack efficacy and sensitivity (Ayotte, Miller & Thevis, 2017; Bowers & Bigard, 2017) and Kayser, Mauron & Miah (2007) suggest that some anti-doping tests for specific substances are inconsistent and have led to a number of false positive anti-doping tests. Not only is this problematic for anti-doping effectiveness, but it can potentially cause damage to an athlete's reputation, health and well-being. If athletes are accused of doping and are unable to prove their innocence, then they will have to live with the consequences of shame, stigma and sporting exclusion. Moreover, even if

these athletes manage to prove their innocence, they will have experienced a period of sporting exclusion and will have to unfairly defend their innocence and reputation.

One specific substance that anti-doping control tests struggle to identify, determine and detect is HGH. Literature highlights that testing lacks the ability to accurately distinguish between synthetic and naturally occurring HGH (Green, Thevis & Trevorrow, 2009; Uryasz, 2009). This was noted by some rugby players during the interviews and these individuals outlined that they used HGH because they knew it was difficult to detect. Participant 9 states:

‘Yes, they can test you but with growth hormone they can’t test it through urine, it has to be through blood. But what they say is that to test urine is ‘X’ amount, but to test blood is 5 times ‘X’ amount. They don’t tend to do blood testing at that level because of the price of testing blood. I think I’m fairly safe in that sense’ (P.9).

If anti-doping control tests lack the efficacy to determine whether an individual has used a specific doping substance or not, then one might argue that this is a good enough justification to abandon ADP altogether. If anti-doping control tests lack the capacity to determine the use of a specific doping substance and individuals use these substances based upon this notion, then there will be continued use, unfairness and inequalities between athletes. Accordingly, some might argue that anti-doping ought to be abandoned because it cannot accurately and consistently determine and detect the use of specific doping substances within sport and without this specificity, anti-doping will fail to protect and ensure doping-free sport.

Within the introductory chapters, I highlight that the estimated prevalence of doping within sport was much higher than the figure that the WADA report is caught doping (de Hon et al., 2015; Ulrich et al., 2018; WADA, 2019; WADA, 2020). Accordingly, this suggests that a greater number of athletes are using doping substances within sport than the number of athletes getting caught. This suggests that ADP is somewhat struggling to achieve its aims to protect doping-free sport and consequently, protect the health of athletes (WADA, 2020). Due to these concerns, the very foundations of ADP can be questioned.

In 2011, the then Director of the WADA, David Howman, stated that only ‘dopey dopers’ were likely to be caught by anti-doping controls and hinted at the inadequacy of doping tests. Howman stated that anti-doping control tests must improve the quality and efficiency of its testing if it wanted to continue its fight against doping (Howman, 2011). Due to these concerns, the potential inadequacies of ADP, and the struggles to ensure doping-free sport, it can be argued that ADP ought to be revised or completely abandoned due to these inadequacies (Kayser et al., 2007).

What is more, some have raised the notion of the rising financial cost of anti-doping. Currently, anti-doping is equally funded by the IOC and World Governments, but as time has gone on, these costs have continued to rise. With the growing emphasis on recreational sport (Backhouse et al., 2014; Christiansen et al., 2020), and the mass numbers that make up recreational sport (Europe Active, 2020), these costs are only likely to increase. If the WADA fails to attain adequate funding and recourses, it will not only fail in its attempts to prevent and catch doping athletes within recreational sport, but ADP will also fail within its main duties to protect and promote sporting integrity within elite sport. Due to these concerns, some might argue that anti-doping ought to be abandoned within recreational sport, with anti-doping efforts focusing exclusively on elite sport, where the outcome of competition is far greater and the rewards that much more significant. Not only will this better ensure sporting integrity within elite sport, but it might also allow public health bodies the leniency they require to reach and engage with recreational athletes in order to better protect the health of these individuals.

Whilst there are some practical concerns and challenges associated to anti-doping tests, efficacy, detection and sensitivity (Ayotte et al., 2017; Bowers et al., 2017), this does not mean we ought to abandon ADP and allow recreational athletes to use doping substances in sport. ADP aims to protect doping-free sport, sporting integrity and the health of athletes (WADA, 2020), and due to the significance of the health concerns reported during the interviews and documented within the literature (Evans-Brown et al., 2009; Llewellyn, 2010; McVeigh et al., 2015; Mullen, Whalley, Schifano & Baker, 2020), health protection appears essential. Although anti-doping struggles to achieve its aims, this ought not mean we allow doping and abandon ADP

completely. If we were to allow doping within recreational sport, a greater number of individuals might use doping substances, and this may well mean that a greater number of athletes would experience adverse health conditions. If the number of individuals that experienced harm whilst using doping substances, a greater number of individuals would require medical treatment which undoubtedly, increases demand and cost within healthcare and treatment for doping substance users. What is more, allowing doping within recreational sport would have a knock-on effect into elite sport which threatens sporting integrity. If recreational athletes were allowed to use doping substances and progress into elite sport, then this would put these individuals at an advantage over elite athletes and also risk the health of these individuals. For these reasons, I move to reject the proposal, to allow doping within recreational sport.

Having outlined some of the ethical concerns associated to the proposal, to allow doping substance use within recreational sport, I offer a short conclusion before considering the third proposal, to supervise doping.

6.4 Conclusion

At the very beginning of this chapter, I made it clear that to abolish ADP and to allow athletes to use doping substances, this meant without supervision, guidance or support. In the subsequent chapter, I examine the proposal of doping under medical supervision, and I separate the two policy proposals within this thesis. Whilst there is some existing literature that argues for the abolishment of ADP, these arguments tend to frame their proposals and allow doping under medical supervision and up to cut-off levels (Savulescu et al., 2004; Kayser et al., 2005; Wiesing, 2011; Kayser et al., 2017). Although these frameworks make some valuable points and potentially reduce harm, they are framed to supervise doping and largely overlook recreational sport. The proposal that I have critically examined within this particular chapter, would be to abolish ADP completely and to allow doping without any form of oversight or intervention.

One of the main arguments to consider the three different policy responses within this thesis: (1) to allow doping; (2) to prevent doping; and (3) to supervise doping,

was the notion of health. A number of recreational Welsh rugby players outlined that they experienced serious adverse health conditions associated with the use of doping substances and these harms aligned with current literature (Evans-Brown et al., 2009; Llewellyn, 2010; McVeigh et al., 2015; Mullen et al., 2020). Although ADP specifies that it aims to promote and protect health (WADA, 2020), and does so to a certain degree, I argue that there are clear struggles towards achieving this aim. Not only are recreational athletes using doping substances, but they are experiencing significant harm and are engaging with a number of risk-taking practices. Due to the significance of these harms and the fact that ADP does little to prevent harm from occurring, I have considered the proposal, to allow doping within recreational sport.

Whilst the WADAs main concern is to eradicate cheating via the use of doping substances within sport, I argue that doping continues to be an issue both in terms of sporting integrity and health. Due to this concern, I took on the proposal to allow doping and explored whether the abandonment of ADP could be justified on the grounds that the current ADP breached a number of usually respected ethical principles. I explored the notion that if we were to allow doping, we would do away with some of the ethical concerns associated to current ADP. Ethical concerns have been associated to invasive anti-doping control tests, threats to privacy, unfair and inconsistent applications of ADP and disproportional anti-doping sanctions. Although some might argue these to be good reasons to abandon ADP, and to allow the use of doping substances within recreational sport, I argue, that this would potentially contribute to further and unjustifiable health risks. Moreover, not only might this pose a risk to the health of athletes, but it might also have wider implications for public health.

Currently, ADP plays an important role not just within sport but also wider society. It is clear that the use of doping substances sometimes triggers adverse health conditions (Llewellyn, 2010; McVeigh et al., 2015; Mullen et al., 2020), however, outside of sport, the use of these substances is not illegal, and the general public can freely use doping substances if they wish to do so. It has been noted that the use of doping substances within sport and the general public is a growing public health concern (McVeigh et al., 2017; UKAD; 2018; UKAD, 2020), and if we were to allow doping within recreational sport, we are only likely to add to these health

concerns. ADP has an important role helping to shape our perceptions and beliefs with regards to the use of doping substances and it is clear that sport and ADP has an important role to play with regards to health promotion. ADP helps guide the thinking of recreational athletes and the general public when we consider the permissibility of doping substances and without ADP in place, more individuals would likely perceive it permissible to use doping substances and initiate their use. This is morally problematic when we consider the significance of harm noted during the interviews and documented within the existing literature (Evans-Brown et al., 2009; Llewellyn, 2010; McVeigh et al., 2015; Mullen, Whalley, Schifano & Baker, 2020). On these grounds, I move to reject the proposal, to allow doping within recreational sport.

Although there are clear concerns associated with ADP and its struggles towards achieving its aims, with the continued use doping substances within elite and recreational sport (de Hon et al., 2014; BBC; 2017; Ulrich et al., 2018), and athletes experiencing harms to health (interview responses), ADP aims to protect a fundamental good. Without ADP in place, I argue that the use of doping substances would increase and so would the potential and likelihood of harm. What is more, the proposal to allow doping, does not respond to the health risks associated with doping and for these reasons, I move to reject this proposal. I argue that the health concerns associated with doping are problematic and to simply ignore these concerns, I find morally indefensible. The health of athletes ought to form the basis of any response and although not perfect, ADP and the WADA Code do aim to protect athlete health. I argue that without health, a number of the other ethical concerns mentioned within this chapter would be made redundant.

Having examined the proposal, to allow doping within recreational sport, I consider the final proposal, to supervise doping. Within the subsequent chapter, I flesh out what I mean when we discuss to supervise doping and consider whether this is an ethical response to the notion of doping within recreational sport.

TO SUPERVISE DOPING;

DOPING UNDER MEDICAL SUPERVISION

7.1 Introduction

In the previous two chapters, I have discussed two separate proposals: (1) to prevent doping by strengthening current ADP; and (2) to allow doping and do away with anti-doping rules. Having examined some of the ethical concerns associated to each of these proposals and rejected these proposals, I move to consider and examine the third proposal, (3) to supervise doping. Within this chapter, I explore what it would mean to supervise doping within recreational sport.

Outlined within the revised WADA 2021 Code, the health of athletes appears to be amongst the main focus of anti-doping efforts alongside sporting integrity (WADA, 2020). The WADA Code outlines the fundamental rationale to be; Anti-doping programs seek to protect the health of Athletes and to provide the opportunity for Athletes to pursue human excellence without the Use of Prohibited Substances and Methods. Anti-doping programs seek to maintain the integrity of sport in terms of respect for rules, other competitors, fair competition, a level playing field, and the value of clean sport to the world (WADA, 2020). Although the WADA sets out this rationale, I argue that the current anti-doping effort struggles to protect doping-free sport and the health of athletes.

Athletes continue to dope within both the elite and recreational levels of sport (Backhouse et al., 2014; de Hon et al., 2014; Ulrich et al., 2018; Christiansen et al., 2020), and this is concerning when we consider the range of harms associated with the use of doping substances (Evans-Brown et al., 2009; Pope et al., 2014; McVeigh et al., 2015; Goldman et al., 2019; Mullen et al., 2020). During the interviews, a number of recreational Welsh rugby players detailed having used doping substances and experienced harm. Many of these harms, however, appear somewhat avoidable. Some harms were associated to a lack of doping substance knowledge, accessing

misinformation from friendship groups, gym users and online forums and the engagement with high-risk drug taking practices; including the use of multiple and high dosages of doping substances. Even when recreational athletes experienced harm, these individuals continued to use doping substances in pursuit of their primary goals, body image. This is concerning when we consider the seriousness of the harms sometimes experienced by athletes, with a small number of participants requiring hospitalisation or specialist treatment. Participant (2) outlines:

‘I ended up having an arm infection once, basically because I was trying to inject myself, I was having someone else do it for me but this person was away at the time so I tried to do it myself and by doing it myself I ended up bruising the area so I couldn’t use that area anymore, so from there I ended up using my shoulder/arm area to use it and from there I ended up getting an arm infection. When I went to the hospital they told me that I obviously should stop but if I wasn’t going to, to use a different area and I had obviously been injecting into my arse so that was where the bruising was so they told me to wait until the bruising and swelling had gone down, then to carry on’ (P.2).

What is more, a number of athletes argued that they would continue to use doping substances outside of sport. Thus, removing these individuals from sport would do little to protect their health.

Whilst the fundamental rationale of the WADA Code sets out that it aims to protect athlete health (WADA, 2020), some key literature notes how anti-doping policy might in fact, inhibit harm minimisation efforts. Due to the punitive anti-doping system, some athletes are reluctant to seek medical support or advice due to the fear of anti-doping reprisal (Kayser et al., 2007; Evans-Brown et al., 2009). What is more, due to the anti-doping fight against doping, and the reporting of doping by the media, this has fueled mistrust, stigma and shame within the general public. These factors drive doping substance use underground, encouraging more secretive and potentially harmful behaviors (Evans-Brown et al., 2009; Mulrooney et al., 2019). It is also notable that anti-doping cannot be seen to tolerate doping as this might send out mixed messages (Christiansen et al., 2020). Thus, it is difficult for anti-doping to protect the health of athletes and calls have been made for anti-doping to be revised

and to support doping under medical supervision (Savulescu, Foddy & Clayton, 2004; Holm, 2007; Kayser et al., 2007).

Within the academic literature, much ink has been split over discussions concerning a prohibitionist view, those in favour of anti-doping and by those who wish to abandon anti-doping completely. Both of these views appear to fall short, however, a third view is raised. This third view takes a liberal stance towards doping and is set out a number of different frameworks by various academics. These frameworks outline that doping could take place under medical supervision and physicians' guidance (Kayser, Maun & Miah, 2005; Holm, 2007; Wiesing, 2011), and that we should test for health markers and not for drugs (Savulescu, Foddy & Clayton, 2004). Moreover, there are claims to shorten the Prohibited List, making it more pragmatic and health focused and to have cut off levels for drugs use (Kayser & Brower, 2012; Kayser & Brower, 2015; Kayser & Tollener, 2017). In a final study, Angelo & Tamburrini (2010) suggest that doping substances users ought to be offered support and counselling in relation to each athlete's personal background and move away from the current punitive sanctioning regime. Whilst these arguments set out a more liberal stance to the use of doping substances within sport, they largely maintain an elite sporting focus and largely do away with anti-doping rules. Due to the focus on health within the WADA Code rationale (WADA, 2020), this chapter explores the notion of supervised doping.

Due to the ongoing use of doping substances within sport (de Hon et al., 2014; BBC; 2017 Ulrich et al., 2018), and the potential harms associated with the use of doping substances (Evans-Brown et al., 2009; Llewellyn, 2010; McVeigh et al., 2015; Mullen et al., 2020), this chapter will explore what doping under medical supervision might look like and hope to achieve. First, I will explore what doping under medical supervision might look like.

7.2 What would supervised doping look like?

The notion of supervised doping within sport has surfaced previously and has been offered as a solution to combat some inequalities caused by doping substances and to prevent any potential health risks caused by doping substances. Various supervised

doping models have been suggested, all of which tend to break away from the current ADP. These frameworks largely see the use of doping substances normalised within sport and accepted up to cut off levels. Within the following section, I examine some of these arguments and pick out some ethical concerns.

The debate whether doping should or should not be prohibited in sport, has long been the focus of many discussions. These discussions lay out a number of different arguments and some academics suggest that if we were to permit doping, we could essentially supervise drug use and limit the harm to these individuals (Kayser, Mauron & Miah, 2005; Holm, 2007; Kirkwood, 2009; Kayser et al., 2012; Wiesing, 2011; Savulescu, 2015). Notably, however, due to the fact that these arguments are more concerned with the notion of whether doping should or should not be prohibited within sport, they often overlook the details of policy responses that would essentially protect athletes' health. Moreover, these arguments are often focused on elite sport and assume the position that the use of doping substances are related to performance enhancement. By focusing on performance enhancement, the health of athletes remains largely overlooked and we make little progress towards protecting athletes' health.

Within the first argument that I consider and explore within this section, Kayser et al., (2005) outlines:

‘rather than drive doping underground, use of drugs should be permitted under medical supervision [...] Furthermore, legalisation of doping, we believe, would encourage more sensible, informed use of drugs in amateur sport, leading to an overall decline in the rate of health problems associated with doping. Finally, by allowing medically supervised doping, the drugs used could be assessed for a clearer view of what is dangerous and what is not’.

Although several useful points are made here, there is limited detail in terms of policy framework, how this approach would look and how this approach would look to navigate avoidable harms associated with doping. Suggestions are made to medically supervise doping, but we are left guessing what this supervision might

look like. Would doctors provide, assist and administer doping substances or would they provide information to athletes so that they can go away and dope more safely? For good ethical analysis, these details must be laid out and presented so that we can work through the nuances within these policy responses and ethically analyse what these policies would mean for the athletes involved. The proposal is also based and defended on a number of assumptions, most of which have little supporting evidence. Without this supporting evidence, such sweeping claims ought only to be offered tentatively and ought not be guide such sweeping proposals.

Within the current investigation, a number of rugby players reported an unwillingness to engage with medical professionals. Instead of engaging with healthcare professionals, Welsh rugby players relied on friendship networks, gym users and online forums for advice and information. The combination of these risk-taking factors increases the potential likelihood of harm, however, Kayser et al (2005) argues that doping under medical supervision encourages athletes to engage with healthcare workers. It is argued that this engagement would improve our understanding of doping substance use and harms and this would better promote the health of these individuals. Although Kayser et al., (2005) points towards further positive outcomes of the proposal, suggesting there would be an overall decline of health problems if doping was supervised, this argument perhaps does not account for a potential and great increase in the number of athletes who might take up the use doping substances if policy were to change. If doping was to be permitted under medical supervision, the potential numbers of athletes that decide to use doping substances could grow exponentially, leading to an inevitable increase in the number of athletes that experience health concerns. This is concerning when we consider the harms outlined during the interviews and the range and seriousness of harms documented within the literature (Evans-Brown et al., 2009; Llewellyn, 2010; McVeigh et al., 2015; Mullen et al., 2020). It would be a monumental task to oversee and supervise mass numbers of athletes through doping supervision and I question whether this proposal is truly attainable. Conducting mass medical supervision of doping in sport would come a great cost and reach far beyond the scope of sport and anti-doping. It is doubtful whether public health bodies would be willing to fund such a proposal and again, I question the feasibility of such a proposal. In addition, Kayser et al., (2005) suggests that doping under medical supervision would do away

with the concerns around invasive anti-doping controls. Whilst this might be true in terms of the whereabouts policy and some anti-doping control tests, it is still likely that athletes would have to forfeit a degree of privacy so that doping substance use and the health of athletes can be appropriately monitored and assessed. Thus, privacy concerns would likely remain. Supervised doping would require significant medical intervention and supervision, and without such oversight, athletes would likely continue to experience harm.

In an additional proposal, Holm (2007) outlines that doping under medical supervision would allow for any harms associated with doping substance use to be detected more quickly and as a consequence of this early detection, these harms can be more effectively treated and managed. Whilst early detection and treatment would greatly benefit the athlete, this would rely on a willingness of the athlete to engage with healthcare professionals, something highlighted as a barrier to harm reduction strategies (Evans-Brown et al., 2009). This proposal would require a number of medical examinations to establish and determine any deviation from normal health markers. Consequently, this poses its own set of ethical challenges and would require an athlete to forfeit aspects of privacy so that these tests can be conducted. What is more, health checks might need to be ongoing and require athletes to undertake medical examination prior, during and post drug use. Due to the possibility that these health checks would be invasive and threaten bodily modesty, these ethical concerns ought not be overlooked (Allen, 2016).

Another proposal towards supervised doping, Savulescu (2015) provides a more detailed account on safer doping in sport. Savulescu states:

‘the problem with anabolic steroids is that they are obtained illegally, and then self-administered in secret by athletes who are not trained to identify overuse or to scale their dose appropriately. Like many behind-the-counter drugs, steroids can be taken safely but it is not safe enough to take them on your own. It would be much safer to take steroids for performance enhancement if they could be administered and monitored by a doctor. If we focus on physiological doping, doping within the normal range, we know that it is safe. It is the routine practice of medicine to detect deviations from

normal, so there is an arsenal of methods to reliably enforce such an approach. This would release limited resources for testing unsafe or exogenous substances. For those reasons, the legal shackles ought to be removed from steroid growth hormone use, and put in the hands of the prescription system. Athletes would be able to obtain steroids from their doctor on request. However, the moral and legal responsibility for the athlete's health would be passed from the athlete, who after all is no expert on modern medicine, to the doctor. Any doctor that overprescribed steroids, or who prescribed any unreasonably dangerous drug, would be struck off the medical register' Savulescu (2015).

This response outlines a more detailed argument of what a supervised doping might look like within sport. Under doctor supervision, doping substances would be provided and administered to athletes under strict guidelines. Whilst Savulescu details some of the necessary framework to better protect athletes' health, the argument is framed within an elite sporting context and is more concerned with the notion of fairness. I argue that health ought to be considered as the central and defining principle within the proposals to supervise doping, as the risks to health are the most morally problematic aspects of doping in sport. What is more, doping under doctor's supervision gives health professionals greater authority over athletes and there will undoubtedly be the risk of rogue doctors willing to push the boundaries and prescribe doping substances above and beyond recommended dosages. When we also consider that some doctors work for or within teams, this adds to these concerns. Within sport, both at the elite and recreational level, there are performance expectations from team sponsors, managerial staff, fans and the athletes (Anderson & Gerrard, 2005). If these outlets impose any pressure on the medical professionals, then these individuals might find themselves in challenging positions and feel pressured into prescribing more of a doping substance than necessary (Holm, 2007). In addition, by restricting the quantities of doping substances that are prescribed by doctors, some athletes might also attempt to attain further doping substances from additional and perhaps untrusted sources. Unlike the doping substances that would be prescribed by doctors, additional substances might come from unregulated sources, are potentially manufactured to poor quality and lack pharmaceutical standards (Evans-Brown et al., 2009; Llewellyn, 2010; Sagoe et al., 2015; Friedman et al.,

2016). Thus, the use of additional doping substances would pose a real and serious health risk to users and would not be navigated within this type of supervised doping framework. Due to the fact that additional doping substances would likely be attained without the doctor's knowledge or approval, then it is possible that any adverse health conditions encountered by these athletes might be wrongly related to the doping substances prescribed by the doctor. In a previous argument, Kayser et al (2005) outlines that a supervised doping model would increase what we know about the use of doping substances and the potential harms, however, if athletes were to attain and use additional doping substances outside of a doctor's oversight and control, then the reliability of this data would be tarnished.

In a more comprehensive move towards supervised doping, Kayser & Tolleneer (2017), suggest that anti-doping rules should be relaxed towards acceptable health risks, with athletes' health monitored. Here, it is argued that doping tests would remain, but using pragmatic evidence-based cut-off levels to control risk and the potential harm of doping substances. The authors suggest that the three criteria for inclusion of a substance or methods on the Prohibited List ought to be revised, with the health argument maintained and withdrawal of the spirit of sport and performance enhancement. It is suggested that the Prohibited List is shortened, removing substance after substance and monitoring health along the way. It is argued that by simplifying the PL, this would bring greater clarity and the use of the substances on the PL should be monitored to cut-off levels and reasonable risk. The relaxation of anti-doping rules makes for an interesting consideration; however, I question whether this move would encourage more athletes to use doping substances. Whilst I argue that it is morally defensible to protect and ensure the health of athletes who have already and previously decided to use doping substances, I argue that there is a moral difference between supporting athletes who have already made the decision to use doping substances and supporting athletes who have been encouraged to use doping substances due to a shift in anti-doping's position and the relaxation of anti-doping rules. To encourage further athletes to consider or initiate the use of doping substances who had previously not thought about doping, is morally wrong and is a weakness of this type of policy response. I find this morally problematic and this is where I wish to distinguish and separate between arguments of doping under medical supervision and the potential of harm reduction.

Although I agree that we ought to protect the health of individuals who use doping substances, we ought not encourage doping substances use, nor should we shift our way of thinking towards the idea of doping to be a morally permissible behavior. Doping under medical supervision gives off the wrong message, it encourages doping, and I find this shift particularly challenging when we consider minors. If individuals who are not yet able to make informed decisions, are encouraged to make rash decisions to use doping substances, then the health of these individuals will likely suffer as a consequence. What is more, I question whether we have the appropriate scientific evidence base, to monitor and manage acceptable health risks. What might be acceptable for one individual, might be harmful and detrimental to another. Without the appropriate scientific evidence to support and inform decision making, then it is likely that the health of individuals will suffer as a consequence of these ill-informed decisions.

Finally, Kayser et al., (2017) suggests that the criteria for substances and methods inclusion on the Prohibited List ought to be shortened. Here, it is argued that performance enhancement ought to be removed from the criteria and by suggesting this proposal, Kayser and colleagues must be in agreement that performance enhancement through doping substances is permissible within sport. Once again, I argue this to be morally problematic and outline that this could lead to further inequalities between athletes. Unless all athletes decide to use doping substances, there will be performance inequalities between those athletes that decide to use doping substances and those athletes who decide not to use doping substances. If athletes know that doping substances positively influence performance and also know that most athletes are using these substances, then this leaves athletes with little other choice but to also use doping substances. Once again, I find this to be morally problematic as it forces athletes into making a decision whether or not to use doping substances. If athletes perceive that all other athletes are using doping substances and the only way to remain competitive and to keep up with others is to use these substances, then this forces athletes into making irrational decisions that could potentially come as a detriment to their health. The coercive nature of this supervised doping framework model must be noted here and ought not to be overlooked within this ethical analysis. If athletes experience or perceive there to be

any pressure to use doping substances because of the relaxation of anti-doping rules through this supervised doping framework, then I argue this to be morally problematic and indefensible.

In a final proposal towards supervised doping, Angelo & Tamburrini (2010) lay out a framework that positions doping substance use within general sport healthcare and suggests that we ought to consider each athlete's personal background when it comes to doping. It is argued that doping should be considered as a medical problem rather than a sporting one and that preventative programmes ought to be developed and implemented through person-tailored counselling and eventually treatment, rather than severe sanctions. Although this approach is elite sport focused and doping is considered primarily for performance enhancement, the proposal to consider dopers as patients and not athletes, is interesting. Acknowledging individual doping experiences is extremely important and this point will be something I explore and consider later in this chapter.

During the interviews, a number of Welsh rugby players detailed personal insecurities with the way they looked and highlighted body image concerns. These individuals often went to the gym, lifted weights and used doping substances to treat and manage these feelings. Participant (9) states:

‘Yeh, it really was. My confidence was terrible, really bad. I would think people were talking about me, it wasn't nice. It wasn't easy. When my mates started going out to town or for a night out, I would never go, I would never go to town. I didn't really go out until my 18th birthday; I wasn't interested because I had no confidence whatsoever. I was always thinking about what other people thought of me, what they might say, it wasn't a good time' (...)
‘When I was 15-16 years old, I was very over-weight, I was a very, very big boy and my mates were in better shape than I was. I started using the gym when I was 18 and I started using anabolic's at around 18-19 years old. My shape started to change then, I went from being very over-weight to being in good shape' (P.9).

The use of doping substances was sometimes to combat these negative feelings and I argue that we must consider these individuals and their use of doping substances in a different light to doping within elite sport. Instead of casting shame or stigma on these individuals through punitive anti-doping sanctions, these individuals ought to be treated with greater consideration, compassion and care. This is exactly what Angelo et al., (2010) argues for and by doing so, promotes the health and well-being of athletes. By supporting athletes, offering them advice or counseling, we respond directly to the emotional vulnerabilities of these athletes and respond with greater compassion and understanding. Hong et al., (2020) has previously highlighted the emotional damage caused by punitive anti-doping sanctions, and the proposal to supervise doping would do away with anti-doping sanctions and the associated ethical concerns. By responding to athletes in this manner, offering a thoughtful and compassionate hand, I argue that athletes will feel better understood, appreciated and valued. What is more, by moving away from punitive anti-doping sanctions, this might encourage athletes to be more open about their doping substance use and access the appropriate advice and information they sometimes require. The punitive nature of current ADP has been identified to drive doping behaviors underground and away from medical professionals (Kayser et al., 2007; Evans-Brown et al., 2009) and this potentially exaggerates harm. Thus, this supervised doping model looks to navigate this concern and encourages an openness amongst doping substance users.

Within each of these supervised doping frameworks, in the main, the proposals do away with anti-doping rules and allow athletes to use doping substances within sport under medical supervision. Whilst these proposals lay out an argument for doctors to supervise doping, athletes will continue to push boundaries and attempt to use doping substances above and beyond prescribed limits. Within elite sport, where the aim is to win, athletes will always continue to seek an advantage over fellow competitors. Although doctors would supervise doping substances use, athletes would continue to seek an advantage and perhaps use different substances, from different sources and in greater quantities. The quality of these substances cannot be guaranteed, and the health risks will be likely to persist. Due to the notion that athletes use doping substances to achieve some kind of performance advantage over fellow competitors, they will likely continue to use doping substances in ways to beat fellow competitors. Murray (2017) highlights this:

‘as far as I know, people who use heroin and other narcotics are trying to get high – but they are not competing with one another to see who can get the highest. The way to win a high jump or pole vault event is, of course, precisely to get higher than anyone else. A drug addict needs only enough of his or her preferred substance to get to that individual’s desired state, no more. What matters in athletic competitions is who can go fastest, highest, or farthest. If one drug, or some combination of drugs, provides an advantage, then as long as some athletes are using them, other competitors must do the same or else give up what could well be a decisive edge’ (Murray, 2017).

I argue that this quote helps spell out why supervised doping would fail to prevent harm amongst doping substance users. Consider a harm reduction strategy that focuses on recreational drug use within the general population. Recreational drug users who engage with this type of programme are not in competition with other drug users. For this reason, harm reduction appears more likely as these individuals would be more willing to listen to advice and information provided by health care professionals. Whilst these individuals might go away and use additional drugs for themselves, these individuals would not go away thinking they need to get higher than the person next to them. Thus, harm reduction advice and information might be better received than what it might be within a sporting population. When we consider supervised doping and a proposed harm reduction strategy, it is notable that athletes are in competition within one another. Although recreational athletes are not necessarily in competition related to sports performance, they might be in competition with other gym users to become more muscular and stronger. Thus, although doctors would supervise and oversee doping substance use, once these athletes leave medical supervision, they might experiment and use additional doping substances, to attain a greater performance benefit than the one permitted by doctors. Thus, I argue that the type of supervised doping detailed in the frameworks above would struggle to protect the health of athletes.

Above, I have laid out some of the reasons as to why I wish to distance myself from doping under medical supervision. Although I argue that more must be done to protect and promote athlete health, to do away with anti-doping completely, I argue,

creates more concerns that it solves. Athletes will continue to use substances outside of medical supervision, some doping behaviors will continue to be secretive and harmful, we do not have the relevant scientific knowledge to accurately determine whether a specific substance is harmful or not, doctors will likely be exposed to pressure, and athletes will continue to be subjected to invasive drug supervision controls. Thus, I distance myself from these sweeping claims and argue that there is value within anti-doping and anti-doping rules.

ADP aims to protect athletes' rights to compete in doping-free sport, promote health and fairness and prevent doping (WADA, 2020), and I argue that these aims are worth fighting for and align somewhat with a harm reduction approach within public health. Harm reduction strategies would aim to promote and protect health. What is more, these strategies would seek to prevent harm and ideally, encourage the discontinuation of drug use. Whilst prevention is not a primary aim of harm reduction, drug prevention and discontinuation are amongst some of its aims (HRI, 2020). Thus, anti-doping rules appear to align somewhat with elements of harm reduction, and I will now offer a short defense of anti-doping rules before moving to explore harm reduction proposals within public health.

7.3 Anti-doping Rules; A fight worth fighting for

Above, I have presented and laid out some of the proposals to medically supervise doping. In the main, these proposals are based on the notion that athletes continue to use doping substances and sometimes experience harm. Further points are raised which highlight the invasive nature of doping controls and threats to privacy, and the punitive nature of anti-doping sanctions and the insufficient justification for those sanctions. Although supervised doping proposals offer a range of policy responses, they generally move away from anti-doping rules and permit doping under medical supervision (Holm; 2007; Kayser et al., 2007; Savulescu, 2015). Whilst some of these proposals argue that doping under supervision would eradicate potential inequalities and reduce the likelihood of harm, I challenge these approaches. I argue that these proposals would fail to protect athlete health and could possibly contribute to further harm. I find this particularly concerning when we consider the harms to health highlighted during the interviews and documented within the academic

literature (Evans-brown et al., 2009; Llewellyn, 2010; McVeigh et al., 2015; Mullen, Whalley, Schifano & Baker, 2020).

Although there are some concerns associated within the application of ADP within recreational sport (wherein ADP fundamentally applies the same administrative and legal machinery for both elite and recreational sports populations), ADP - especially in the latest revision of the WADA Code – is significantly motivated by a generic idea of health protection. By preventing, deterring and offering education to athletes, ADP ought to be considered as a public health protection measure. Without ADP in place, we could reasonably predict a rise in the use of doping substances and a possible increase in the harms associated with the use of doping substances.

Referring back to the doping prevalence literature (de Hon et al., 2014), it is clear that that doping exists in sport, however, it is easy to overlook and be drawn away from the fact that ADP deters and prevents some athletes from using doping substances. Not only does this apply to elite sport populations, but it also holds within recreational sport ones too. Existing literature documents that ADP can dissuade some athletes from using doping substances (Overbye, Knudsen & Pfister, 2013) and this is particularly important when we consider the use of *some* doping substances to be a public health threat.

Not only does ADP act towards the prevention and deterrence of doping substances within sport but it also has the ability to reinforce ethical norms, values and behaviors, officially endorsed by the policy making institution. Though any selection of values and norms is open to debate, the nature of these benefits ought not be overlooked as mere preferences of a given institution. Sport, generally, and ADP more specifically, have significant moral value, with the potential to instill positive values, develop life skills and encourage good, ethical decision making (WADA, 2020). Though any set of norms and values may be challenged, these are relatively uncontentious. Values are not mere cognitions. Rather they may be positive traits worthy of admiration and respect. Equally, values have emotional dimensions that contribute to ethical salience: a state of being and behaviors that are seen and felt to be and contribute to a social good. Actions against values are said to be undesirable (McFee, 2004), and the use of doping substances where it contradicts the

aforementioned values, may lead to undesirable effects and ought not be permitted within sport.

Sport has the potential to contribute positively to an individual's ethical development. Through ethical teaching and guidance, one can develop an ethical skill set that contributes to the development of ethical and responsible people (Cleret, 2015). Moreover, within the WADA Code, the Spirit of Sport outlines health to be one of the key values of sport. It is argued that sport was typically considered to get people healthy and if an individual was unhealthy, they would struggle with sporting participation - sport is seen to make people healthier (Cleret, 2015). However, when we consider the use of doping substances and the possible health risks associated with the use of those substances (Evans-Brown et al., 2009; McVeigh et al., 2015; Goldman et al., 2019; Mullen et al., 2020), doping would be seen as contradictory to health and may be justifiably prohibited within sport.

Some of the arguments outlined above are somewhat evident within the inclusion the Spirit of Sport clause (WADA, 2021). WADA (2021) state the Spirit of Sport to be:

‘Anti-doping programs are founded on the intrinsic value of sport. This intrinsic value is often referred to as “the spirit of sport”: the ethical pursuit of human excellence through the dedicated perfection of each *Athlete's* natural talents. Anti-doping programs seek to protect the health of *Athletes* and to provide the opportunity for *Athletes* to pursue human excellence without the *Use of Prohibited Substances and Prohibited Methods*. Anti-doping programs seek to maintain the integrity of sport in terms of respect for rules, other competitors, fair competition, a level playing field, and the value of clean sport to the world. The spirit of sport is the celebration of the human spirit, body and mind. It is the essence of Olympism and is reflected in the values we find in and through sport, including:

- Health
- Ethics, fair play and honesty
- *Athletes' rights as set forth in the Code*
- Excellence in performance

- Character and *Education*
- Fun and joy
- Teamwork
- Dedication and commitment
- Respect for rules and laws
- Respect for self and other *Participants*
- Courage
- Community and solidarity

The spirit of sport is expressed in how we play true. Doping is fundamentally contrary to the spirit of sport' (WADA, 2021).

Whilst some have criticised the Spirit of Sport suggesting it to be too broad (Savulescu, Foddy & Clayton, 2004), others have defended its inclusion (McNamee, 2012; Loland & McNamee 2019), arguing it to be one of the fundamental pillars of sport. ADP protects the notion of the Spirit of Sport and its associated values. Protecting these values appear particularly important when we consider recreational sport. Within recreational sport, where participation is fundamentally about recreation, fun and participation, the values outlined within the Spirit of Sport appear worth fighting for and protecting. The values outlined above are admirable and hold great ethical potential. They underpin sports potential as an ethical training vehicle and without ADP in place, many of these values would be threatened. It is arguable that many of the values outlined within the Spirit of Sport clause align more favourably with recreational sport, where less emphasis is placed on winning. Thus, ADP appears to facilitate a fundamental good and this potential should not be overlooked nor underestimated.

In addition, in elite sport where some athletes are considered role models, we can reasonably suggest that these individuals have the potential to shape and influence the lives of others and in particular, the lives of children. If we were to allow doping, it appears reasonable to suggest that more individuals would use doping substances, some of which could be children. As some children idolise their heroes, they might consider doping to be the thing to do if they saw their heroes using these substances. Thus, ADP ought to be considered a vital barrier to disrupt potential harmful norms

and behaviours from gaining greater currency. Whilst the notion of role modelling within recreational sport is rarely commented upon, this is not to say that the use of doping substances would not influence others. Bates et al., (2019) reports that a range of socioecological factors might influence doping and Backhouse, Griffiths & McKenna, (2018) speaks of a dopogenic environment. The dopogenic environment is an important consideration as there are a number of factors that are said to influence one's decision to use doping substances. Some of these factors include influential others, surroundings and opportunities. Accordingly, we can draw some similarities between these influential factors and begin to understand how ADP attempts to disrupt these influential factors and dissuade doping within sport.

Moreover, if we were to do away with ADP within recreational sport, there would be clear concerns to sporting integrity within elite sport. ADP is said to protect the notion of a level-playing field and fairness, an argument which holds for both elite and recreational sport. Sport should be considered as a pathway through which athletes are able to progress and develop. The pathway allows athletes to develop their playing careers and offers individuals the chance to progress through lower levels (recreational sport), into higher levels (elite sport). If we were to allow doping within recreational sport, this would be a direct threat to sporting integrity within elite sport. Recreational athletes could feasibly use doping substances, secure some performance enhancement or advantage, and make progress toward elite sport. Without ADP in place for both elite and recreational athletes, there would be a greater risk of unfairness between the two populations. Whilst some have argued that there are already a number of factors that contribute to unfairness within sport, for example, genetic or socio-economic advantages (Savulescu et al., 2004), this does not justify the abandonment of ADP. ADP better protects the notion of fairness and, whilst I concede that there are a range of other factors that contribute to unfairness between athletes, this is not reach to the conclusion that ADP is not a justifiable goal.

With regards to fairness and level playing fields, Savulescu et al., (2004) agrees if we were to allow everyone to use doping substances, then we would level the playing the field. Although such a proposal has the apparent merit of producing equality of opportunity, preventing no one from any particular pharmacological route to performance enhancement, it overlooks some of the ethical concerns that arise with

respect to the full range of values listed in the Spirit of Sport by WADA. It is feasible to suggest that some individuals, of whom maybe children, may feel it necessary to use doping substances to keep up with others. Some of these individuals will not consider the long-term effects of doping substances and completely overlook some of the health risks. Due to the ethical concerns associated with this proposal, I reject this move and again, support ADP within both elite and recreational sport.

If we were to allow athletes to use doping substances under medical supervision, I argue that this would potentially risk athletes' health further and pose additional risks and harm to other athletes. I argue that allowing doping under medical supervision would encourage further athletes to dope and this raises concerns when we consider minors. Moreover, doping under medical supervision will not do away with the issue of individuals attempting to use doping substances outside of medical supervision and above those levels deemed safe and acceptable. Thus, the use of some doping substance, even when medically supervised, will present a range of health risks to the users of these substances.

Within the revised WADA Code, it is clear that the health of athletes is the amongst the most significant justifications for anti-doping (WADA, 2020). The revised Code places greater emphasis on the notion of health and whilst anti-doping has its challenges, the WADA Code aims to protect health and fairness and prevent doping (WADA, 2020). Due to the fact that the WADA Code aims to protect athlete health, I argue that anti-doping ought to retain its position. This is particularly important when we consider that rugby union is a sport built around power, strength and collision management. Thus, when we consider that there are a number of doping substances that could positively influence power, strength, muscular size and the body weight, there are some clear concerns to health. Increasing power, strength and weight to unnatural levels through the use of doping substances, we could reasonably predict an increase in injuries through impact and collisions.

A body of literature has already begun to document the increased rates of concussion amongst rugby players (see, for example, Gardner, Iverson, Williams, Baker & Stanwell, 2014) and it is feasible to suggest that the doping substances might exaggerate these concerns. Whilst we draw some tentative conclusions here, there

appears to be good reason to support and maintain ADP within both elite and recreational sport. Whilst some argue that there are several aspects of sport considered to be unhealthy, for example, boxing and brain injuries, this ought not to mean we are obligated to prohibit boxing. The same holds with anti-doping. Just because anti-doping has its flaws, this ought not mean we do away with anti-doping rules. Anti-doping aims to promote athletes' health (WADA, 2020). Due to this fundamental good, I argue that anti-doping ought to retain its position within sport and this is where I separate my argument from these supervised doping frameworks presented above. In the final chapter, I will lay out and argue for a blended model of anti-doping and harm reduction, detail its components and defend how this approach is different to supervised doping.

As I have highlighted above, the revised WADA Code places greater emphasis on the notion of health (WADA, 2020), and I argue that the health of athletes is even more pressing within recreational sport. Within recreational sport, where many individuals participate for recreation, fun, enjoyment and for the potential health benefits, health protection and promotion appear essential to allow these desires to flourish. Unlike within elite sport, whereby sporting participation is grounded upon winning, performance, employment and livelihoods, recreational athletes choose to participate through personal desires. Thus, the rationale and aim of the WADA Code to promote athlete health (WADA, 2020), appears something worth protecting and fighting for.

It is also notable how ADP helps shape perceptions and beliefs with regards to the use of doping substances. ADP makes it somewhat morally problematic to use doping substances and this is not only useful within sport, but also within the general public. These perceptions and beliefs are important when we consider that the use of doping substances is not illegal within the general public and individuals may use doping substances if they wish to do so. The use of doping substances within sport and in the general public is concerning when we consider the health risks associated with the use of doping substances (Evans-Brown et al., 2009; Llewellyn, 2010; McVeigh et al., 2015; Mullen et al., 2020), something identified as a growing public health concern (McVeigh et al., 2017; UKAD, 2019; UKAD, 2020). Due to these health concerns, ADP plays an important role in the prevention and deterrence of doping

substance use. By portraying the use of doping substances in a morally problematic light, this discourages use within sport and also within general the public. Although this point offers some justification towards retaining ADP, Evans-Brown et al., (2009) highlights that ADP perhaps inhibits harm reduction efforts. Thus, this is an important consideration and should not be overlooked within the defense of ADP.

Having outlined a short defense of anti-doping and moved to reject the proposals of doping under medical supervision, I move to consider harm reduction strategies set out within public health contexts. I argue that it is important to consider wider public health led proposals due to the wealth of scientific research supporting their design, implementation and efficacy. What is more, harm reduction interventions are designed to promote health and minimise negative health implications (HRI, 2020), something that is also grounded within the anti-doping rationale (WADA, 2020). The potential crossover of harm reduction and anti-doping is evident here, and I will explore this notion further. After presenting and ethically examining a range of public health led interventions, I will flesh out and present what a harm reduction and anti-doping model might look like.

7.4 Public health and harm reduction

Currently, there appears to be disjointed attempts to minimise the harms associated to PED/iPED use across the UK. The majority of harm minimisation advice tends to be through Needle and Syringe Programmes (NSPs), and different NSPs have adopted different strategies across the UK to combat harm (Kimergård et al., 2014). Within the following section, I outline the UK response to minimise the harms associated to PED/iPED use and also look towards wider harm reduction strategies. Whilst NSPs have not been setup as a response to doping within sport, there are several valuable aspects that we ought to consider expanding and strengthening for the direct purpose of doping within recreational sport. Within the following section, I present this approach and highlight how NSPs could be used alongside recreational sport and ADP.

Harm Reduction International (2020) outlines that there is no universally agreed definition of public health harm reduction, but state:

‘Harm reduction refers to policies, programmes and practices that aim to minimise negative health, social and legal impacts associated with drug use, drug policies and drug laws. Harm reduction is grounded in justice and human rights - it focuses on positive change and on working with people without judgement, coercion, discrimination, or requiring that they stop using drugs as a precondition of support. Harm reduction encompasses a range of health and social services and practices that apply to illicit and licit drugs. These include, but are not limited to, drug consumption rooms, needle and syringe programmes, non-abstinence-based housing and employment initiatives, drug checking, overdose prevention and reversal, psychosocial support, and the provision of information on safer drug use. Approaches such as these are cost-effective, evidence-based and have a positive impact on individual and community health’.

Whilst harm reduction would not necessarily mean that an individual would stop using drugs, this would be an ideal scenario for a harm reduction strategy. In the main, harm reduction aims to protect health and better ensure individuals do not experience adverse health risks. I argue that similarities can be drawn between these aims and to the rationale of the WADA Code and anti-doping (WADA, 2020). Within the following section, I outline PED/iPED harm reduction and wider behaviours including alcohol, tobacco and self-harm.

7.4.1 The UK and PEDs/iPEDs

The National Institute for Health Care and Excellence (NICE) provide guidelines for health promotion in relation to PED/iPED use (NICE, 2014). NICE (2014) outline:

‘the Pump Clinic is a confidential service / intervention designed to engage with and offer specialist advice and information to users of Performance and Image Enhancing drugs. The Pump Clinic offers a basic health screen including Biochemical and Hormonal analysis to help Steroid users to reduce the harm from their drug use. They also offer a full Needle and Syringe Programme with advice on safer injecting, as well as access to confidential

Blood Borne Virus testing. This service directly aligns with Recommendation 10 in the NICE guidance: Provide equipment and advice to people who inject image and performance-enhancing drugs. These include: Are provided at times and in places that meet the needs of people who inject image-and-performance-enhancing drugs. (For example, offer services outside normal working hours, or provide outreach or detached services in gyms.) Provide the equipment, information and advice needed to support these users. Are provided by trained staff. Provide specialist advice about image-and-performance-enhancing drugs; specialist advice about the side effects of these drugs; advice on alternatives (for example, nutrition and physical training can be used as an alternative to anabolic steroids); information about, and referral to, sexual and mental health services; information about, and referral to, specialist image-and performance-enhancing drugs clinics, if these exist locally' (NICE, 2014).

Although the NICE (2014) guidelines are comprehensive, they rely on the willingness of individuals to engage with these services. These guidelines are also weighted more heavily towards users who inject PEDs/iPEDs. Consequently, this overlooks a population of PED/iPED users that only use oral substances (Mulrooney et al., 2019). Within the current investigation, Welsh rugby players were more likely to use oral doping substances over injectables. Consequently, this would mean that Welsh rugby players were likely to miss out on these services that the Pump Clinic provide and potentially experience harm as a consequence.

It was notable that a small number of rugby players acknowledged the importance of NSPs, with some individuals accessing their services. However, a number of participants did not know these services existed and a number of participants reported barriers to using and accessing NSPs. These barriers included: fear of shame and stigma due to the close association to other drugs and drug users, such as heroin use; a perceived lack of knowledge by medical professionals and lack of trust. These barriers are important to consider when attempting to improve harm reduction efficacy and better protect athlete health. Protecting athlete health appears vital when we consider there to be little other evidence to support harm reduction and prevention services within PED/iPED using communities (Bates et al., 2021), and the

range of harms associated to the use of doping substances (Evans-Brown et al., 2009; Llewellyn, 2010; McVeigh, 2015; Mullen et al., 2020). Nonetheless, NSPs appear to play a vital role to help navigate some of the avoidable harms associated with doping substances and in a final chapter, I will build upon the NICE (2014) guidelines and offer a framework that could be employed alongside recreational sport.

Within the following section, I make reference to wider public health policies, before providing a tailored framework to supervise doping within competitive recreational sport.

7.4.2 Wider Public Health Initiatives

Kennedy, Karamouzian & Kerr, (2017) outline that psychoactive drug use remains a major global public health concern and, in particular, is a key driver of HIV/AIDS. In an effort to mitigate these challenges, supervised drug consumption facilities (SCFs) have been established. SCFs are healthcare facilities that provide sterile equipment and a safe and hygienic space for people who use drugs to consume pre-obtained illicit drugs under the supervision of nurses or other trained staff. These services have been proven to mitigate overdose-related harms, unsafe drug use behaviours, facilitate the uptake of addiction treatment and are cost effective. Whilst the focus of this thesis was to consider an ethical response to the use of doping substances within recreational sport; the efficacy of these harm reduction interventions should not be overlooked. I argue that efficacy of an intervention comes into the consideration when attempting to ethically justify the intervention. If the intervention is ineffective and exposes an individual to harm, for example, through mandatory drug testing, then an invasion of privacy forfeited through the drug testing procedures would be unlikely to be justified. On the other hand, if an intervention is effective and protects the health of an individual and others, then this invasion of privacy appears more permissible as it promotes a wider good. Proven efficacy of harm reduction supports the notion that drug related interventions can reduce the likelihood of harm to both the individual and wider public. Understanding which components of harm reduction contribute to positive outcomes is necessary to shape future interventions and better protect the health of an individual.

In an additional study, Measham (2019) outlines the intervention of drug checking (drug safety testing, pill testing, street drug analysis) at music festivals. The intervention allows the general public to submit substances for content analysis. Although there are several different drug interventions models in operation at festivals, drug safety testing rests at the core of these interventions. Testing identifies the chemical compound within each substance and directly informs the individual and/or wider stakeholders of the contents of that substance. These services have been successful in reducing harm to recreational drug users at festivals by detecting unsafe drugs, by identifying the quantities of active compounds in a specific drug (extremely high and dangerous levels of potency) and also identifying if the substance is what it was sold as. The service also provides important and up-to-date drug related information and advice that can easily be shared within the festival and online. The services also offer the safe disposal of drugs and also medical support and assistance for drug users at festivals (Measham, 2019). Drug testing at music events and festivals has received support by some MPs and wide support from festival organisers and leading experts (BBC, 2018; Busby, 2018). These individuals argue that drug related deaths at festivals are avoidable. If these individuals have access to drug testing, correct information and advice, this minimises some of the risks associated to this type drug use. What is more, information provision might also prevent individuals from using the drugs altogether (BBC, 2018; Busby, 2018). Whilst these policies intend to protect the health of individuals, they do not come without their critics. A number of individuals have suggested that drug testing at festivals gives off the ‘green light’ impression and make it permissible to use these substances.

Interestingly, both of the harm reduction interventions presented above raise an important point between legality and harm minimisation. When we consider the criminal law, possession and consumption of these types of recreational drugs would be considered a criminal act and is illegal. Notably, however, these harm reduction services navigate legal boundaries by agreeing with the police, police-negotiated ‘tolerance zones’ (Measham, 2019). Within these agreed tolerance zones, drug users are granted immunity from criminal laws associated to the possession of these drugs in order so that the drugs can be tested for safety. Within the UK, some police forces have endorsed drug testing interventions due to the possibility that these services can

save lives and protect the health of individuals (Busby, 2018). Due to the legal status of these drugs and the possible repercussions that come with breaking the law, drug users are less willing to engage with healthcare professionals due to the fear of possible repercussions. This drives drug use behaviours underground and some users risk their health. It is argued that many of these health risks are avoidable and harm reduction services respond to this notion. Individuals are likely to find a way to use drugs no matter what the law states, however, if users can be educated and informed as to what they are doing, then this potentially saves lives, avoids harm or even prevents drug use altogether. Thus, the significance of these interventions is clear to see, and I wish to draw upon the notion of criminal law and sporting rules.

When we consider drug use in sport, we are talking about anti-doping rules, however, when we consider recreational drug use within society, we are talking about criminal law. If criminal law can accept the relaxation of its laws to facilitate harm reduction services to better protect the health of drug users, ought sport and anti-doping not do the same? If recreational athletes use doping substances and risk their health in the process, I argue that there is a moral obligation to protect the health of these individuals. I argue that sport and anti-doping ought to consider a more flexible approach towards doping within recreational sport so that the health of athletes are better protected. There are clear struggles to ensure doping-free sport (de Hon et al., 2014; BBC, 2017; Ulrich et al., 2018), and the risks associated with the use of doping substances are significant and serious (Evans-Brown et al., 2009; Llewellyn, 2010; McVeigh et al., 2015; Mullen et al., 2020). Due to the fact that the recreational athletes detailed having experienced significant harm during the interviews, I argue that a more flexible anti-doping approach ought to be considered.

In a final harm reduction intervention, I look at supervised self-harm and explore what this type of intervention could contribute to a notion of harm reduction within competitive recreational sport. Edwards and Hewitt (2011) consider the behavior of self-harm and the notion of self-harm supervision. This intervention provides individuals that would usually self-harm outside of hospital, with emotional and practical support to harm themselves within a safer context. This would include the provision of knives and razors to enable the individual to self-harm under the supervision of a nurse. This kind of intervention appears somewhat successful in the

avoidance of life-threatening harm, whilst facilitating and respecting the fulfilment, desires and need of that patient. Like the drug taking behaviours outlined above, the desire of the individual to self-harm is not to kill themselves, but to achieve some form of altered mental state. Self-harm brings satisfaction and relief to the individual, through both physical pain and the visualization of harm. This contributes to psychological relief for the individual (NICE, 2004). Whilst controversial, the supervision of self-harm helps navigate avoidable life-threatening harm whilst respecting the autonomy of these individuals.

Somehow, these harm reduction strategies appear to squeeze moral boundaries and twist what we think we know is right or wrong about something. Harm reduction initiatives respond to behaviours that many consider to be harmful, wrong, shameful and burdensome. Opposition question whether taking a tolerant approach sends out the wrong message, but within all of the examples, the intervention aims to protect the health and well-being of the individual. Individuals do not intend to take a fatal overdose of a party drug at a festival, the same way as an individual who self-harms does not intend to kill themselves. The same can be said for recreational athletes who use doping substances. Recreational athletes do not intend to harm themselves when using doping substances, they are in pursuit of the desirable effects of those substances. In all of these behaviours, there is a significant risk to health, however, with the proper information, advice and assistance, these harms appear largely avoidable. This is an important notion to consider when individuals are likely to engage with these risk-taking practices no matter what the law or rules state. Due to the fact that these individuals are likely to continue engaging with these behaviors, harm reduction strategies appear best placed to respect the autonomy of the individual and best protect health.

Having presented and examined some of doping literature and wider public health harm reduction strategies, I will now offer a conclusion before offering a response to how anti-doping and harm reduction could work together within recreational sport. Within the following chapter, I outline how anti-doping and harm minimisation could coexist and outline a framework to position this argument. Utilising the interview data and building upon the NICE (2014) guidelines, I outline what this harm reduction framework might look like and detail its components.

7.5 Conclusion

Above, I have detailed arguments that explore the notion of doping under medical supervision. Whilst some of these proposals set out some interesting arguments, I distance myself from the claims that do away with anti-doping rules. I argue that there is value in retaining anti-doping and this is outlined through the WADAs fundamental rationale to prevent and deter doping and protect athlete health (WADA, 2020).

The revised 2021 WADA Code reiterates the importance of health and argues that anti-doping aims to promote athlete health (WADA, 2020). Whilst anti-doping has its flaws and Welsh rugby players continue to use doping substances and experience harm, the argument I present is grounded in the notion of health. Thus, anti-doping appears to fit with what I argue for alongside harm reduction. Health protection is a shared aim across both of these strategies, and I argue that anti-doping and harm reduction could co-exist within recreational sport. The argument that I explore within the following section retains the position of anti-doping but argues for a harm reduction model to run alongside recreational sport to better protect athlete health.

Within the anti-doping literature, proposals are made which would see sweeping changes to ADP. These arguments largely accept the use of doping substances within sport and provide frameworks under the conditions that athletes can use doping substances. These conditions outline that doping substances can be used under medical supervision or up to cut-off levels and testing should monitor the health of these athletes (Kayser, Mauron & Miah, 2005; Kirkwood, 2009; Kayser et al., 2012; Wiesing, 2011; Savulescu, 2015). Whilst these frameworks might better protect athlete health, I find it challenging how such sweeping changes could ever be made to sport and ADP. I argue that there is insufficient scientific evidence to support claims suggesting doping would be safe up to cut off levels and I raise concerns that not enough is known about the short- and long-term health effects of doping substance use. Moreover, I argue that athletes would continue to use substances outside of doctors' supervision, even if the proposal was to medically supervise doping. Holm (2007) also raises concerns with doping under medical supervision and

challenges whether some of the claims made are robust. What is more, doping under medical supervision would likely change the way sport is played and have wider ethical implications. Ethical concerns could arise through coercion, whereby athletes who perhaps did not previously consider the use of doping substances, decide or shift towards these behaviours because others are doing so. I argue it is unethical to force these individuals into making these decisions and for this reason, I wish to separate what I am about to argue.

What I set out and argue for is a much more cautious approach. It builds upon some of the considerations within the supervised doping literature and also within the public health led harm reduction interventions. What I argue for would only require minor tweaks to ADP and these tweaks are related more tightly to the sanctioning process. In the main, anti-doping rules would remain and the use of doping substances would remain prohibited, however, I argue that athletes require greater support services and better health promotion. In the following section, I set out this framework and examine what this would mean for athletes, athlete health and recreational sport more generally.

A PROPOSAL; ANTI-DOPING AND HARM REDUCTION

A SEARCH FOR COMMON GROUND

8.1 Introduction

I begin this section with three clear statements from the interview data: (1) doping substance use is evident within recreational Welsh rugby; (2) some Welsh rugby players using doping substances experience harm; and (3) in the main, Welsh rugby players use doping substance for body image concerns rather than for performance enhancement. In response to these three main points, I present a proposal which would see anti-doping policy and harm reduction collaborate to better ensure the health of recreational athletes.

Having rejected the three policy responses: (1) to prevent doping; (2) to allow doping; and (3) to supervise doping, I move to offer a separate proposal. This proposal suggests that anti-doping organisations and public health bodies collaborate with one another. Although ADP has its faults, it aims to promote and protect a fundamental good. Without ADP in place, more athletes might use or consider the use of doping substances and in doing so, risk their health. For this reason, I argue that ADP must retain its position within sport but consider a number of tweaks to better protect athlete health.

To better protect health, I argue that anti-doping organisations must collaborate and allow public health bodies to work with recreational athletes to reduce harm. The interview responses outline that athletes continue to use doping substance with little regard to anti-doping policy or the health risks associated to doping substance use. Nonetheless, recreational athletes called for greater support, information and advice when the use of doping substances are considered. Due to these concerns, a collaboration between anti-doping organisations and public health bodies appears the most appropriate response. This response would raise awareness of the health risks

and offer athletes advice and information to better protect health. Although it is argued that anti-doping policy is said to have driven doping behaviours underground and perhaps inhibits harm reduction efforts (Evans-Brown et al., 2009), ADP ought to be considered one of the essential barriers to prevent and deter doping. What is more, due to the public health concerns associated to doping substance use (risk and transmission of bloodborne viruses, the age of some users - minors, growing prevalence, the risk of harmful counterfeit products and the potential health concerns - body image dissatisfaction, depression, dependency and withdrawal), I argue that more must be done to ensure the health of athletes and the general public.

Within the following section, I explore how this proposal could work and outline why public health bodies ought to lead harm reduction. I argue that sport specific harm reduction units must establish themselves separately from more traditional NSP due to associated stigma with psychoactive drugs and, instead, provide harm reduction specific to recreational sport and gym users within Wales. These services could, for example, build upon the positive work detailed within the 'Pump Clinic' and increase efficacy through the application of the typology model (Vinther et al., 2020).

Whilst a number of specialist harm reduction services exist within the UK, these specialist services vary greatly in nature and delivery (Kimergård & McVeigh, 2014) and van der Ven et al., (2020) reports that oral AAS users are a population at risk of being overlooked within NSP. Nonetheless, Bates, McVeigh & Leavey, (2021) outline that the UK has successfully delivered harm reduction to individuals who inject AAS, but these services ought to be considered a bare minimum when harm reduction efforts are considered. Although positive strides have been made within harm reduction efforts in recent years (Bates et al., 2021), there are currently no harm reduction services designed specifically for recreational athletes. Thus, when we consider these claims, the interview data and some of the identified drug use characteristics, it appears fundamental to establish specialist harm reduction for recreational athletes and gym users within Wales.

Within the following section, I propose a harm reduction framework for recreational athletes and gym users within Wales, with a specific focus on Welsh rugby players

and gym users. Moreover, I specify how ADP and harm reduction might co-exist, outline the requirements of these specialist services and detail why public health bodies should lead harm reduction for recreational athletes and gym users.

8.2 How might anti-doping and harm reduction co-exist

Above I have pointed towards some of the reasons as to why public health bodies are better positioned to provide harm reduction information and advice to athletes, rather than the WADA or ADP. Within the following section, I will present how this approach might work and explore what considerations would need to be made.

Although I am discussing harm reduction in a general sense, I argue for a model similar to that outlined by the Pump Clinic (NICE, 2014). The Pump Clinic was set up for iPED users and I extend this model to respond to the problem of doping within recreational sport. I adapt this framework and apply to the population of recreational athletes and gym users within Wales. Later in this chapter, utilising the Pump Clinic model, I offer some suggestions that respond directly to the participants responses during the interviews. But first, I set out how ADP and harm reduction might look.

To begin, it is important to understand that I set out this argument for ADP and harm reduction to co-exist, however, the two different approaches remain somewhat independent from one another. In the main, I argue that these two bodies ought to remain independent from one another due to their different aims but look to establish a relationship built upon health protection. Both the WADA and harm reduction strategies seek to protect health; however, harm reduction strategies are able to provide information and advice that potentially contradicts the anti-doping message and aim of doping-free sport (WADA, 2020). This is the major difference between the two different strategies, and I will set out an argument to how these two separate strategies might come together to better protect health. I have previously defended the inclusion of ADP, arguing that without ADP, we could reasonably predict an increase in doping substance use and with that, an increase in the number of people who experience adverse health conditions. What is more, I argue that ADP helps to protect sports potential as an ethical training vehicle and without ADP in place, we would begin to lose (at least part of) what is valuable about sport. Thus, for these

reasons, I have argued that ADP ought to retain its position within recreational sport and we ought to consider sport specific harm reduction to better protect athlete health.

For the purpose of understanding, I will consider three main actors when I discuss ADP within section. The three key actors are: The WADA (who outline the Code - rules and polices that need to be implemented by NADOs and IFs); the UKAD (a NADO who adopts the Code, rules and polices and oversees that National governing bodies implement the Code); and the WRU (A National Governing Body, who must adopt and oversee the WADA Code and its implementation with Welsh rugby union). These three actors are fundamental within this argument and I will outline how each of these actors play a vital role to ensure the fundamental aims of ADP. Having outlined what I mean when I discuss ADP, I now move to consider Public Health bodies and who that entails. In its simplest form, when I discuss public health, I mean: The World Health Organization (An international Organisation which coordinates global public health concerns); and governments, both national and local (Public Health Wales) and the health care services they provide. Below, I outline this organisational mapping framework:

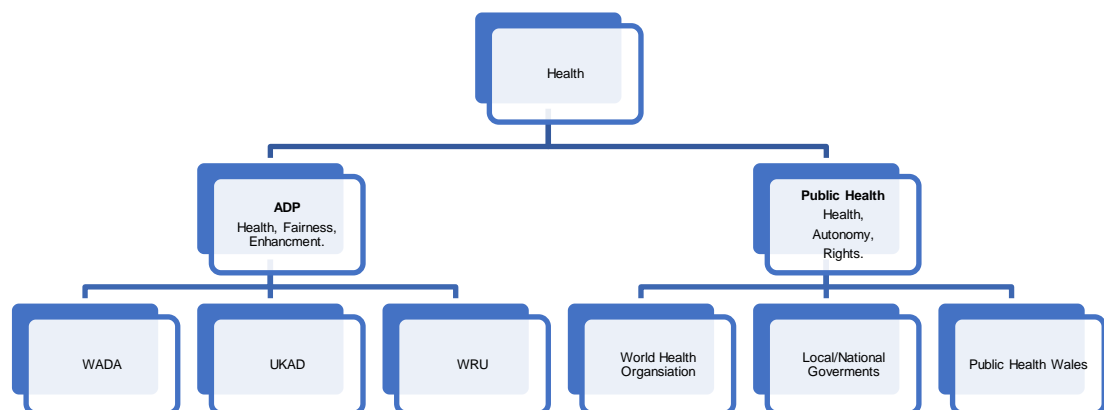


Fig 2. Anti-Doping and Public Health mapping framework

Both ADP and public health bodies seek to protect and promote health (HRI; 2020; WADA, 2020), however, they do so in different ways. When we consider ADP, the

main way to protect and promote health is through ADP adherence, the testing and sanctioning of athletes and through anti-doping educational sessions. Although anti-doping educational sessions can promote and better protect athlete health, only a small number of participants included within the current investigation outlined that they had received any form of formal anti-doping education. What is more, few rugby players perceived ADP to be a real deterrent, continued to use doping substances and risked their health in the process. Although these individuals outlined an unwillingness to stop using doping substances, they did, however, outline a need for advice and information to reduce the likelihood of harm. Thus, there is a clear need for public health bodies to provide up-to-date information and advice to protect athlete health and reduce the potential health risks associated with doping substances. Whilst the provision of information would better protect the health of athletes, it would be contrary to the notion of doping-free sport and undermine one of the fundamental rationales for the WADA Code (WADA, 2020). On the other hand, public health bodies, who are distinctively separate from ADP and sport, can provide information, advice and equipment to athletes who use doping substances. A harm reduction intervention led by public health bodies, such as The Pump Clinic (NICE, 2014), are distanced from anti-doping rules and this enables them to provide harm reduction advice that might otherwise seem contrary to ADP, anti-doping rules and the fundamental aim of the WADA Code (WADA, 2020). By retaining autonomy from ADP and the WADA Code, harm reduction advice can respond directly to concerns highlighted during the interviews and better protect health.

It is possible that some might question how the approach I am arguing for differs from what is currently available. It is evident that ADP and harm reduction services currently exist (NICE, 2014; WADA, 2020), and Welsh rugby players could feasibly access harm reduction services if they wished to do so. Although athletes can access harm reduction services, there are a number of notable barriers inhibiting services. Within the UK, harm reduction services vary greatly in nature and delivery (Kimergård et al., 2014). Moreover, fear of anti-doping reprisal and the associated stigma with psychoactive drugs are also notable barriers to efficient harm reduction (Evans-Brown et al., 2009). What is more, specialist harm reduction services such as the Pump Clinic (2014), are rare and have been established for specific populations that are perhaps not suitable for recreational athletes. The Pump Clinic was designed

to protect the health of iPED users, and it is possible that the information and advice included within those services might be inappropriate for recreational athletes and Welsh rugby players. Nevertheless, whilst Bates et al., (2021) state the UK has been somewhat successful in harm reduction for injectable AAS users, Van de Ven et al., (2019) outlines that the current harm reduction strategy is not inclusive: it overlooks a population of oral drug users. The proposal that I am arguing for is something specific to doping substance use within recreational sport, a service that would shadow ADP and provide recreational athletes and gym users within Wales, specific information and advice to reduce harm. Specificity could be achieved through the application of the typology model (Vinther et al., 2020) and see ADP and public health bodies collaborate to better protect health. In this chapter, I will provide the details behind this argument and the framework for harm reduction units to target recreational athletes and function alongside ADP.

Although public health bodies and ADOs are two distinctively separate bodies, I argue that public health bodies ought to work alongside ADOs to better protect health. This could be made possible if public health bodies established harm reduction units to work in conjunction with sport and ADOs to combat adverse health conditions related with doping substance use. Whilst ADOs will not be able to fully support harm reduction strategies due to the fear of mixed messages, something raised by Christiansen et al., (2020), ADOs must recognise that the current anti-doping system fails to prevent doping (de Hon et al., 2014; BBC, 2017; Ulrich et al., 2018), and fails protect athlete health (documented throughout the interviews with recreational Welsh rugby players). This is concerning when we consider the fundamental rationale for the revised WADA 2021 Code outlines that it aims to promote and protect athlete health (WADA, 2020). Thus, to facilitate this proposal and better protect athlete health, ADOs could offer Public Health bodies some flexibility to implement and ensure harm reduction strategies target athletes within recreational sport. The two bodies would remain separate but share some common ground. Both harm reduction and anti-doping would rather individuals did not use doping substances, however, harm reduction strategies accept that some individuals will continue to use doping substances and respond by attempting to reduce harm and protect health.

For ADOs and public health bodies to better protect the health of athletes and the general public, the two different approaches must find some way to co-exist. One area I identify that might bring ADP and harm reduction together within recreational Welsh rugby, considers the WRU Anti-Doping Protocol document. Within the WRU anti-doping protocol document, it is outlined that each rugby club will have an anti-doping officer who delivers educational material to their club (WRU, 2019). I argue that the WRU ought to consider additional services which point towards public health and harm reduction services. This would allow the WRU to distance themselves from more general discussions regarding whether doping should be prohibited or not, and focus on what truly matters, the health of the individual. By doing this, the WRU could maintain its commitment towards doping-free sport, uphold its duty of care towards athletes and better ensure that public health bodies and harm reduction strategies receive the support they need.

During the interviews, a number of recreational rugby players did not know harm reduction services existed. Thus, if clubs provided the details of these services within its anti-doping protocol document, this might raise awareness that these types of services exist and better protect the health of athletes in the process. If athletes are set on using doping substances no matter what the anti-doping rule or sanction might be, then these individuals should have access to the best possible information and advice to reduce the likelihood of harm. If athletes are presented with all the possible information with regards to doping substance use, they can make informed decisions and might think differently about using these substances.

As outlined within the Pump Clinic (NICE, 2014), harm reduction strategies could provide workshops, open days and encourage individuals to engage and seek advice about the use of doping like substances. Moreover, like within music festivals and the pre-agreed negotiated drug tolerance zones between the police and festival organizers (Measham, 2019), I argue something similar ought to be considered and established within recreational sport. Public health bodies and ADOs could establish and agree doping substance tolerance zones. These tolerance zones would allow recreational athletes to access harm reduction services without the fear of anti-doping reprisal. These tolerance zones should be specific to population but would require further research to establish these frameworks and boundaries.

During the interviews, rugby players outlined that there were some locations (Gymnasiums and University), and time points (off-season), which meant that they were more likely to use of doping substances. Public health bodies could target specific locations and at specific time points as part of these pre-agreed and established tolerance zones with ADOs. Not only would this help navigate some of the tension between the two distinct bodies and their aims, but it would also better protect the health of athletes who are not willing to stop using doping substances. I argue that the relaxation of anti-doping rules ought to be considered during the off-season, allowing public health bodies the flexibility they require to implement harm reduction for recreational athletes. Participants argued that they would likely continue to use doping substances no matter what the anti-doping rules say. In response to this finding, we ought to better ensure the health of these individuals. If the application of ADP was relaxed during the off-season, harm reduction strategies could target these specific points. Lack of engagement with harm reduction services is something previously identified by Evans-Brown et al., (2009), who suggests that the punitive anti-doping approach has spilled over into public health domain and has complicated harm reduction efforts. It is suggested that harm reduction strategies are limited by negative and harmful perceptions of drug use which have surfaced through anti-doping efforts, the media and public distrust (Mulrooney et al., 2019). By relaxing anti-doping rules during specific and pre-agreed points within a season, this might improve athlete uptake and engagement with harm reduction services and better protect the health of athletes.

Having set out how anti-doping organisations and public health bodies could coexist and allow harm reduction to shadow and run alongside recreational sport; I defend why public health bodies ought to have the main responsibility to protect the health of recreational athletes rather ADOs .

8.3 Why public health should deliver harm reduction

Within previous chapter responses, I explored the notion: (1) to prevent doping (2) to allow doping; and (3) to supervise doping. I move to reject each of these proposals based upon ethical concerns and the notion that the health concerns associated with

doping substances would likely persist. In this final proposal, I argue that specialist harm reduction units ought to be established for recreational athletes and gym users within Wales and should run alongside ADP. At the outset, some might be concerned as to how this approach might look and question whether this response is too idealistic. Above, I laid out a framework to how these two separate approaches ought to concede some ground and in doing so, better protect the health of recreational athletes. Moreover, I defend why public health bodies are better positioned to provide harm reduction strategies to recreational athletes rather than ADOs. In the main, I argue that the use of doping substances within recreational sport is a growing issue for public health and one which is increasingly moving beyond that of a problem exclusively for sport, ADOs and ADP. Within the following section, I set out some of the key arguments to support this stance.

Although I acknowledge the growing efforts and emphasis of athlete health within the WADA Code (WADA, 2020), I argue that the current anti-doping model struggles to achieve this aim. And whilst the WADAs most fundamental goal is to eradicate cheating via the use of doping substances, it is clear that doping continues at both recreational and elite levels of sport. Within the current investigation, a number of recreational athletes detailed personal experiences of harm and this suggests that the current ADP is having little effect for these individuals. Next, I set out the key arguments in support of public health bodies to lead harm reduction alongside ADP.

Firstly, although the revised 2021 WADA Code outlines health to be amongst its fundamental aims (WADA, 2020), I argue that the primary aim of ADP is to ensure doping-free sport and sporting integrity. As the primary aim of ADP is to ensure doping-free sport, I argue that ADP will be unable to protect athlete health unless ADP can guarantee doping-free sport. From the interview responses and wider academic literature, it is clear doping continues to persist within sport (de Hon et al., 2014; BBC, 2017; Ulrich et al., 2018) and due to this notion, I argue that ADP will not fully be able to protect health. As long as doping continues, the health risks will remain. Whilst ADP can promote health through education, I am uncertain whether the WADA, NADOs and ADOs, could provide the type of information required by doping athletes. Moreover, in an attempt to achieve doping-free sport, ADP has

pushed messages of doping to be considered wrong, deviant and immoral, but in doing so, has seen the use of doping substances demonized (Smith & Stewart, 2015). Further mistrust of doping has surfaced through the media's portrayal of doping (Mulrooney et al., 2019), and there is significant shame and stigma associated to doping. In an attempt to achieve doping-free sport, ADP has driven doping substance use underground away from health care professionals (Kayser et al., 2007; Evans-Brown et al., 2009). This is concerning when we consider the harms associated to the use of doping substances and the health of athletes (Evans-Brown et al., 2009; Llewellyn, 2010; McVeigh et al., 2015; Goldman et al., 2019; Mullen et al., 2020). Although the zero-tolerance anti-doping approach appears somewhat necessary within anti-doping efforts and in the hope to achieve doping-free sport, it has left some athletes unsure who to turn to for advice and information. Evans-Brown et al., (2009) outlines that some individuals are unsure who to turn to for advice and information and rely heavily on friendship networks and online forums for advice and information, leaving these individuals feeling marginalised. This is concerning when we consider the health of these individuals and suggests how ADOs and ADP would struggle to protect athlete health and deliver harm reduction initiatives. Unless the WADA were to change its approach towards the use of doping substances in sport, I argue that public health bodies, who do not have the aim to ensure doping-free sport, ought to intervene and lead health protection for recreational athletes and gym users within Wales. Nonetheless, this is not to say we do away within ADP and anti-doping rules. I argue that specialist harm reduction units would be there to shadow ADP and better protect the health of recreational athletes who decide to flout anti-doping rules. It is clear that individuals are going to continue to use doping substances no matter what and for that reason, I argue that there is need to better ensure it is done safely, with specialist harm reduction units to be considered as essential health support vehicles that are designed to protect the health of recreational athletes that flout the rules.

Secondly, over the years, doping within sport has trickled down from an elite sporting problem, to recreational sport, gyms, colleges and high schools. The use of doping substances has fast become a problem not just for sport but also wider society and communities around the globe (UKAD, 2019; UKAD, 2020). Due to the scale of the issue, the potential societal influence (Bates et al., 2019), and the porous

boundaries of competitive recreational sport, recreational sport, fitness, wider society and the general public, I argue that public health bodies ought to provide specialist harm reduction services in Wales for recreational athletes and gym users. The WADA have openly stated that doping is not only a sporting issue but also one that concerns public health, a move also supported by the World Health Organization and UKAD (WHO, 1993; WADA, 2014; UKAD, 2019). Moreover, there is a growing body of literature that suggests that doping substance use is a public health concern (Ahmadi, Ljungqvist & Svedsäter, 2016; McVeigh et al., 2017; Kanayama et al., 2018; UKAD; 2020). With literature also suggesting that younger individuals and minors are also using doping substances (Bates et al., 2019), this is concerning and provides further justification as to why this is not an issue exclusive to sport, but also public health.

It was notable that very few participants outlined that they used doping substances for the purpose of performance enhancement, with a number of the recreational athletes included within this investigation using doping substances to improve body image. A concern that is also recognized by UKAD (UKAD, 2019; UKAD, 2020). Wider claims also suggests that doping is perhaps a societal issue within Wales (Sapstead, 2016), a problem reaching far beyond sports boundaries. Thus, doping is not just an issue for sport and ADOs, but it is an issue within society more generally.

Bates et al., (2019) identifies a number of socioecological influences associated to doping substance use and these influence reach far beyond the sporting arena. For this reason, public health bodies appear better placed than ADOs, with more appropriate recourses and expertise within health promotion to combat health concerns and better protect these individuals from harm. Also, worth pointing out is the risk of bloodborne viruses (Hope et al., 2015; McVeigh et al., 2017; Wells et al., 2017; Goldman et al., 2019), and the possibility of harmful counterfeit doping substances (Evans-Brown et al., 2009; Llewellyn, 2010; Sagoe et al., 2015; Friedman, Arad & Amotz, 2016). The risks of bloodborne virus presents a risk not just within using communities but also to the general public (McVeigh et al., 2017). The individuals included within the current investigation outlined that the use of doping substances was sometimes related to summer holidays or to look good on nights out. If these individuals contracted bloodborne viruses through needle sharing

practices and also engaged with sexual activities, there is a possible risk of virus transmission. This outlines that the use of doping substances in recreational sport is not just a sporting problem, but it is also a clear concern for public health. In addition, the health of athletes is also put at risk due to the possible use of counterfeit doping substances (Evans-Brown et al., 2009; Friedman, Arad & Amotz, 2016). These substances present an array of risks to the health of users and this ought not be overlooked. If these substances are used in combination with other substances or alcohol, there are a number of potentially harmful and unknown chemical interactions. Dunn et al., (2016) reports that doping substances used in combination with other substances has been associated to acts and feelings of aggression and violence. Feelings of aggression were noted during the interviews and if recreational athletes were to act upon these feelings and perceived themselves to have limited control of these emotions, then there is a potential risk not just to athletes but also the general public. Once again, this provides strong justification why doping in recreational sport is not a problem exclusive to sport but also public health.

Thirdly, harm reduction is generally designed for individuals who are not yet willing to give up the problem risk-taking behavior (HRI, 2020). In the case of doping substances, a harm reduction approach would provide information and advice to athletes that would better ensure the safe use of doping substances. This might include information about the types of substances that ought to be used, the quantities of those substances and the provision of drug related equipment (needles and syringes). A harm reduction approach would look to mitigate the harms associated with the use of doping substances and in doing so, better protect the health of the individual. In the main, the primary concern of harm reduction is to protect the health and welfare of individuals. This point is particularly important when we consider that the recreational Welsh rugby players included within this investigation were unwilling to stop using doping substances. Although these individuals demonstrated an unwillingness to stop doping, they outlined a willingness to engage with information and advice to reduce the likelihood of harm. Therefore, harm reduction through public health bodies, and independent from anti-doping rules, appear better placed to respond to the needs of athletes and better protect the health of these individuals.

Whether athletes were unwilling to discontinue doping substance use due to body image concerns or through perceived withdrawal issues and dependency, this is concerning. Some individuals thought they would lose muscle if they were to discontinue the use of doping substances and others noted that their health, focus and lifestyle benefited from their use of doping substances and feared if they were to discontinue the use of doping substances, these perceived benefits would fall apart. For a number of athletes, the use of doping substances bought about a sense of flourishing and without the use of doping substances, some athletes perceived that the quality of life that was made possible through the use of doping substances would be unattainable. Whether this demonstrates shades of dependency or withdrawal, this appears to be a concern for public health. If recreational athletes perceive themselves to have withdrawal issues or signs of dependency or addiction, something identified in wider academic literature (Brower, 2002; Maravelias et al., 2005; Kanayama et al., 2009; Evans-Brown et al., 2009; Llewellyn, 2010; Havnes et al., 2019), then there appears to be growing concerns related to the health of these individuals and a growing need for public health bodies to manage and respond to this problem.

In a final point, one must consider the position of ADP, and the notion that it would be unable to provide the same type of information and advice that would be provided by public health bodies through harm reduction. If ADOs provided information that included the safer use of doping substances or safer quantities of a substance, it would convey the wrong message and risk undermining its fundamental aim to ensure doping-free sport. The fear of mixed messages between anti-doping and harm reduction efforts was something identified within a European report of 32 NADOs (Christiansen et al., 2020). If ADOs and NADOs were to provide information regarding the safer use of doping substances, NADOs and ADOs would send mixed signals to athletes. Thus, harm reduction in a traditional sense, appears incompatible with the current aim of the WADA Code to ensure doping-free sport. Accordingly, an independent body, which can provide specialist harm reduction, appears better positioned, to provide appropriate, sound and necessary information and advice. Retaining ADP with the aim to ensure doping-free sport, acts towards health protection and promotion, as it does deter some individuals from using doping substances. Moreover, the revised 2021 WADA Code outlines that anti-doping education is based upon raising awareness, informing, to commutate, to instill

values, develop life skills and enhance decision making capabilities to reduce intentional and unintentional ADRVs (WADA, 2020). Thus, ADP has the potential to promote health through educational interaction. By keeping harm reduction separate from ADP, this navigates the potential of mixed messages and better supports the health of recreational athletes.

Although anti-doping has shifted its focus in more recent time, and now appears more concerned with athlete health (WADA, 2020), the primary goal of anti-doping is to ensure doping-free sport. Thus, ADOs and NADOs are restricted in their attempts to protect and promote athlete health. On the other hand, free from anti-doping rules, public health bodies have greater autonomy when it comes to the type of information it can provide. Due to this freedom, public health bodies can provide harm reduction information and advice, more appropriately tailored towards athletes and their needs. Moreover, due to growing concern of doping within recreational sport and the use of doping substances spilling over into wider society and the general public, there appears to be growing concerns towards public health (McVeigh et al., 2017; UKAD, 2019). Due to the significance of the harms associated with doping substance use (Evans-Brown et al., 2009; Llewellyn, 2010; McVeigh et al., 2015; Mullen et al., 2020), I argue that it is vital that specialist harm reduction is delivered by public health bodies in Wales, to combat the health risks threatening recreational athletes and gym users. It is clear that individuals will continue to use doping substances and there is evidence to support that harm reduction strategies are somewhat successful in reducing harm from risk-taking practices (NICE, 2014; Bates et al., 2021). Thus, public health bodies appear better placed to provide specialist services and protect the health of these individuals.

Having presented some of the arguments for public health bodies to lead specialist harm reduction for recreational athletes and gym users in Wales, I move to consider some of the tweaks that the WADA ought to consider that would accommodate this proposal and better protect athlete health.

8.4 Anti-Doping considerations

Within this short section, I will stipulate some recommendations that the WADA ought to consider to better protect the health of recreational athletes.

8.4.1 *Length of Anti-doping Sanctions*

Within the revised 2021 WADA Code, there is greater sanctioning leniency for recreational athletes, with sanction reductions possible from a 4-year period of ineligibility, down to 2-years (WADA, 2020). Although I argue this is a positive step that better safeguards athlete health and well-being, I recommend that further amendments ought to be considered. I question whether the current length of anti-doping sanctions is justified and proportional and highlight the fact the majority of Welsh rugby players included within this investigation used doping substances for body image, rather than performance. The sanctioning of recreational athletes should be proportional, and I suggest that further anti-doping sanction leniency ought to be considered within recreational sport to accommodate this proposal.

The majority of Welsh rugby players included within this investigation did not use doping substances for performance enhancement, doping substances were used for body image concerns. Whilst I am willing to concede that the use of doping substances for body image are not restricted to these primary motivations and could potentially spill over and influence sports performance, this is not the intention. These athletes do not use doping substances to cheat, attain prize money, sponsorship deals or contracts. Motivations were based upon and grounded in body image dissatisfaction. Thus, I argue that the relaxation of anti-doping sanctions ought to be considered and assessed on a case-by-case basis. This consideration would determine the substances used and attempt to distinguish between performance enhancement and image enhancement motivations. This might be achieved through the identification of specific doping substances used and level of sporting participation. If a known doping substance with great performance enhancing potential was used and detected, then an athlete would be offered less leniency within sanctioning process. However, if the use of a doping substance was clearly driven towards aesthetics, then these athletes ought to be treated with greater leniency. Athletes treated more leniently within recreational sport would be documented and these individuals would be restricted from progressing into elite sport or forfeit any right to progress further,

until an appropriate and proportional anti-doping sanction had been served. This would maintain and ensure fairness within the sanctioning of athletes and ensure that recreational athletes who used doping substances for performance enhancement, were appropriately and consistently sanctioned. Clearly, there are some concerns around sporting integrity, and this ought not be overlooked when we consider this kind of proposal. It is possible that some athletes might attain some form of performance enhancement from the use of doping substances and this would be a challenge to this type of proposal.

With the proposal for a more relaxed anti-doping sanctioning process within recreational sport, I stress the notion that the majority of recreational athletes included within this investigation were more concerned about their body image, rather than sports performance. These body image concerns are deeply rooted within some individuals, with personal insecurities about the way they look, personal identity battles, the fact that some individuals are seeking social recognition and attention and the respect of others. Participant (1) states:

‘I was massively out of shape before using, I didn’t like the way I looked, I was about 20 stone and just fat. I couldn’t cut that naturally. (P.1)

In addition, some individuals encountered traumatic experiences through their younger years, such as bullying, and these experiences helped to shape outlooks, perceptions and beliefs. In these cases, the use of doping substances was an attempt to rectify and combat these body image concerns. For this reason, the use of doping substances within this specific context ought to be looked at differently to the use of doping substances within elite sport, where the use of doping substances is more often related to performance goals (Backhouse et al., 2007; Scarpino et al. 1990; Laure et al., 1995; Bloodworth et al., 2010; Lenntillon-Kaestner et al., 2010; Kirby et al., 2011). Distinguishing between these motivations is important and I argue that these considerations ought to be weighed up and fully examined when athletes are sanctioned. I argue that lengthy sanctions are unjustified here, are disproportional and potentially lead to additional harms. Moreover, by imposing anti-doping sanctions on recreational athletes and restricting these individuals from participating within sport and engaging within social circles might lead to additional harms. Hong

et al., (2020) outlines that anti-doping sanctions left athletes emotionally vulnerable and I argue that exposing athletes to known harms is morally problematic.

Building upon the work of Angelo & Tamburrini (2010), the relaxation of the sanctioning process ought to be grounded and defended on the basis of health and therapy. Within the proposal outlined by Angelo et al., (2010), it is argued that more ought to be done to help athletes and their drug use ought to be considered in a doctor/patient manner. This is where I argue that the use of doping substances, within this specific context, ought to be considered under a therapeutic light. Some Welsh rugby players appeared emotionally driven to use doping substances and perceived there to be little option but to use these substances to combat body image concerns. Participant (10) outlines:

‘Well I was small compared to everyone else my age, I was much smaller, it was something I had noticed early on and something that bothered me when I was in school, that was the big drive, I wanted to get bigger, I wanted to get stronger’ (...) ‘I always had doubts that I would get any bigger, I could see other boys my age getting bigger and I didn’t seem to be changing. It really did get to me and you question yourself. Even at that young age I remember thinking why I wasn’t as big as my friends’ (P.10).

The use of these substances was seen as a way out for some Welsh rugby players and a way to level out and correct personal insecurities. For some athletes, the use of doping substances bought a sense of fulfilment to the lives of these individuals and enabled athletes to achieve a greater sense of happiness within themselves and with who they were. Participant (10) claims:

‘What I saw was results a lot quicker, I made progress over weeks which would normally take me months or years. It works, it really does. You progress twice as fast, if not faster. It benefits me and it benefits my mindset, it really does make me feel better about myself when I am using, both because of the physical and mental manner. I found them almost uplifting, the energy, the motivation, they enhance your mindset’ (P.10)

‘You feel a lot better, you get a lot stronger, you can train more, your progression is so much better, you feel better in yourself. Because you are taking something, you want to go to the gym, you have less excuses, you go to the gym because in the back of your mind you know you are taking something and would be wasting it if you didn’t go to the gym. If you are not taking something and you miss a session, you are less bothered, there’s less riding on it. Taking these things helps you focus; it gives you goals and helps you train more. It helped in a number of aspects, it limited how much I went out drinking, it gave me motivation to train more, it made me eat healthier. When I was using, it increased a number of aspects of my training’ (P.12).

If we can shift our thinking and understand that some recreational athletes perhaps have personal insecurities and emotional vulnerabilities about the way they look and perceive their bodies, and the use of doping substances is to correct these feelings, then perhaps we can begin to think of these substances differently and away from sporting performance. If we can shift our thinking away from dopers as deviants, and for anti-doping not to heavily sanction these individuals, I argue that this could better promote and protect the health of these individuals. Whilst this approach might better help us understand and be more compassionate towards doping substances use and how we view these risk-taking practices, it is possible that more lenient views towards doping might encourage additional doping substance use. This would be an objection to this argument and provides good reason not to consider doping under a different light.

Kanayama et al., (2020) outlines that body image dissatisfaction might drive individuals to consider the use of anabolic steroids and Mills et al., (2017) claims there to be high levels of body image dissatisfaction amongst rugby players. Acknowledging these points, and the interview responses which outline that some rugby players had significant concerns about the way they looked and perceived themselves, I draw some tentative links to body dysmorphic disorder (BDD). BDD is something recognised within the DSM-5 (2013) and concerns individuals who are excessively concerned about their physical appearance. Individuals who suffer with BDD often struggle with significant emotional distress with regards to the way they look (DSM-5, 2013), and it is stated that muscle dysmorphia is a form of body image

disorder (Harrison, Pope, Jag & Shalender, 2017). Having outlined that some body image concerns can be medically diagnosed, and it is possible that some athletes are potentially suffering with body image concerns and are emotionally vulnerable with the way they look; I argue that anti-doping ought to be more lenient towards these individuals. Punitive and lengthy sanctions might expose these individuals to additional risks, and I argue that the current sanctioning of these individuals is disproportional and unjust. Moreover, if body image concerns can be medically diagnosed or assessed, then perhaps these tools of assessment could also be used within ADP and within the sanctioning process. If medical diagnosis can identify and recognise a specific medical condition, then these individuals ought to be offered greater leniency, with long, punitive sanctions appearing unjust and morally problematic. By removing these individuals from sport, we risk inflicting further harm and this ought not be overlooked or ignored.

It is also notable that the use of some doping substances can include dependency and withdrawal symptoms. From the interviews, it was noted that the most commonly used doping substances were anabolic steroids, and this echoes trends seen within wider literature (Evans-Brown et al., 2009; Bates et al., 2019; Bates et al., 2019). A number of harms have been associated with anabolic steroids (Mullen et al., 2020), but something I wish to highlight here is the development of anabolic steroid dependency. Participant (16) describes these feelings:

‘I have used cycles depending on which kinds of steroids I take, but it normally ranges between 8-12 weeks on and then ideally it would be best to give yourself the same amount of time off, but a lot of steroid users just can’t wait because it becomes more like a mental addiction. It is not a physical addiction, it’s a mental addiction. Because when you look at yourself every day in the mirror, you think you are getting smaller. You can even step on the scales and be exactly the same weight but in your head, you’ll look smaller’ (P.16).

Here, this recreational athlete gives an insight into his feelings and perceptions that might see an athlete become dependent on doping substances. Through the use of doping substances, individuals gain muscularity, lose body fat and improve their

physical appearance. These effects of doping substances meant that some athletes achieved more aesthetically pleasing physiques, and these were the perceived and intended outcomes of many of the athletes included within this investigation. Whilst these were the perceived and intended benefits of the use of doping substances, some athletes appeared to fear losing muscularity when they stopped using doping substances. This fear drove some individuals to engage in higher risk-taking activities and experimented with doping substances over extended periods of time. Participant (16) continues:

‘I stayed on steroids for the whole year, I haven’t given myself a rest. I was trying something different, I was trying to take little, small amounts, not just of testosterone, I was taking a few other things which are pretty toxic, but I was thinking if I take it in a smaller amount, micro-dosing, it wouldn’t make any damage. It didn’t make any damage, but it did impact on my blood and I’ve tried it and I’ll never do it again. So apart from that, my health is perfect’ (P.16).

Due to the fear of losing muscularity, this individual experimented with his drug use and remained on doping substances for an extended period of time. Although this individual acknowledged more normal and commonly run drug cycling periods, this individual was willing to push boundaries, and engage with experimental risk-taking drug practices. In pursuit of the desired outcomes of doping substances and in fear of losing muscularity, this individual demonstrated shades of dependency. Literature highlights that anabolic steroid users can become dependent on anabolic steroids (Evans-Brown et al., 2009; Llewellyn, 2010), and users may encounter withdrawal symptoms when they discontinue anabolic steroids (Brower, 2002; Maravelias et al., 2005; Kanayama et al., 2009; Havnes et al., 2019). These experiences can be extremely concerning for those involved and we ought to navigate these harms by providing the appropriate care and treatment for these individuals. Again, this is why it is important to shift our way of thinking about the use of these substances and provide the relevant and necessary support services required by these individuals. Failure to acknowledge and respond to these concerns is unjust and morally problematic. These individuals require the appropriate support to better ensure health and without the appropriate support and guidance, individuals will likely continue to

harm themselves and engage in these risk-taking practices. Once again, if we accept that doping is likely to persist in sport and is unlikely to be eradicated by ADP and view doping under a different light, one which acknowledges that doping substances are sometimes not used for performance enhancement, but for body image, then we can begin to shift our outlook on the sanctioning of these individuals. If recreational athletes demonstrate dependency or withdrawal symptoms, punitive anti-doping sanctions appear immoral and indefensible. Instead, these individuals ought to be treated with compassion and understanding, and in doing so, the health of these individuals is more likely to be protected.

I suggest that the WADA ought to consider sanctioning recreational athletes differently and consider an approach similar to that of rehab or educational sessions. Attendance of these classes could offer reduced sanctioning length and operate similar to a drivers' speed awareness course. If an athlete has attended or engaged with harm reduction services prior to anti-doping attention, these athletes could be offered additional support or leniency when sanctioning is considered. If the WADA was to consider a more relaxed approach to the sanctioning of recreational athletes, on a case-by-case basis, this could better protect the health and well-being of athletes known to be using doping substances for body image concerns.

For this to take place, there must be recognition of the problem, and this recognition must first come through the WRU. The WRU must actively acknowledge the use of doping substances and although they can remain in favour of anti-doping, they must recognise doping and voice concerns about the possible health risks associated with the use of doping substances. If the WRU recognises the use of doping substances and also raises concerns about the potential health risks associated with the use of doping substances, this might encourage a greater sense of openness, encourage athletes to seek the appropriate advice and better protect the health of athletes. Athletes included within this investigation were not deterred by anti-doping rules, tests or sanctions and stated they would continue to use doping substances no matter what. For these reasons and the seriousness of the health concerns associated with doping (Evans-Brown et al., 2009; Llewellyn, 2010; McVeigh et al., 2015; Mullen et al., 2020), the WRU must acknowledge these concerns and seek to better protect the health of athletes.

In a final point, I explore the notion that some individuals described participation in rugby to be a huge part of the local community and these individuals felt that rugby teams formed part of an extended family. Participants detailed how rugby gave them something to do and it was something they enjoyed doing with friends. Recreational Welsh rugby players detailed a culture within Wales and described that rugby played a vital part of their lives and within the local community. These individuals outlined rugby to have a central role within towns and communities and described a sense of belonging within these environments. Rugby clubs were described as a social hub for some of the participants, allowing these individuals to escape from everyday life. Whilst these individuals outlined that they would not want to lose a game of rugby, they outlined that participation was far more driven towards these social elements. Participant (11) describes the rugby culture:

‘Growing up that is all my friends did, if you didn’t play rugby you wouldn’t really have done anything else. Everyone played a sport of some kind, but my group of friends were rugby, so if I didn’t go and play rugby on a Saturday, you would just be sitting in the house. Once you did get down there, you would stay after the game, you meet new friends then, it is very social, depending on how the team played. When I was playing you would go down to West Wales, boys when you met when you were 7, you would still be meeting at 16 and then even now I am still in contact with them, I still play with and against some of them, it is like one big community’ (P.11).

Due to the perceived social benefits of sport evident and described here, I argue that anti-doping sanctions would restrict this social good and would potentially impact the health and well-being of these individuals. Due to these concerns, I argue that greater sanctioning leniency ought to be considered within recreational sport and that ADP ought to acknowledge and consider the differing motivations for sporting participation and drug use. Without this level of understanding, we will likely overlook what matters and risk tarnishing all athletes with the same brush.

The WADA Code intends to catch and prevent doping athletes who intentionally flout the rules with the intention of cheating and deception (WADA, 2020). Notably,

however, very few athletes included within this investigation were using doping substances with the intention to cheat or attain some kind of performance advantage over fellow competitors. Thus, for the health of recreational athletes, I argue that we must attempt to break down the moral boundaries of whether doping should or should not be prohibited and somewhat accept that doping is going to continue within recreational sport. Once we begin to acknowledge that doping will continue within recreational sport and understand some of the reasons as to why, we can begin to make provisions to better protect health. As these individuals are likely to continue using doping substances and risk their health, I argue that lengthy sanctions are disproportional, morally problematic and would restrict the quality of life for these individuals. What is more, just because these athletes might receive an anti-doping sanction, this would not mean these individuals would stop using doping substances outside of sport. Thus, these individuals will continue to engage in risk-taking practices, and I argue that harm reduction units, that would shadow ADP, would be the most appropriate response to doping concerns within recreational sport.

Having outlined and argued for greater sanctioning leniency within recreational sport, I argue that more support services ought to be made available for the athletes that receive anti-doping sanctions.

8.4.2 Support for sanctioned recreational athletes

If we cannot agree that anti-doping sanctions ought to be more lenient towards recreational athletes, I argue that ADP must better support sanctioned recreational athletes. Hong et al., (2020) argues that athletes feel like they are cut off after receiving an anti-doping sanction and I argue that the WADA, ADOs and NADOs must better protect athletes within these positions. It is argued that anti-doping sanctions leave athletes emotionally vulnerable and this is concerning. The WADA Code outlines that it aims to protect and promote athlete health (WADA, 2020), and I argue that without the supporting networks in place, whether an athlete has committed an ADRV or not, athletes ought to have a safety net to better ensure and protect health if they were to receive an anti-doping sanction.

Although the athletes included within this investigation did not experience anti-doping sanctions personally, this does not mean we should ignore the possibility that others might. Whitaker et al., (2017) outlines that a disproportionate number of anti-doping sanctions were issued to lower-level Welsh rugby players and this raises some ethical concerns. If recreational athletes are receiving a number of anti-doping sanctions and we consider the potential damage that receiving an anti-doping sanction might cause (Hong et al., 2020), then it is evident that more must be done to protect and support these individuals. Although the revised 2021 WADA Code outlines that recreational athletes who receive anti-doping sanctions ought not be publicly disclosed (WADA, 2020), this does not do away with the fact that the media might attain information of doping cases and report these cases on their platforms (Doel, 2019). Some media reports single out individuals, publicly naming these athletes and report some of the specific details concerning that ADRV (Woolford, 2020). Not only would this infringe privacy, but it exposes these athletes to additional distress, shame and stigma. This particularly concerning and I argue that more ought to be done to protect athletes from these negative experiences.

It is notable that the media has great influence over the general public and has the ability to shape the way the public considers or perceives a specific behavior. Over the years, the media has got hold of doping cases and portrayed these cases in a hugely negative and problematic light. This has influenced public distrust and cast feelings of stigma and shame towards these behaviors. Branding athletes as cheats has a range of negative connotations and this can potentially impact an athlete far beyond the sporting arena. Moreover, as we have previously discussed, public mistrust, shame and stigma associated to doping can potentially drive doping underground and further risk the health of athletes (Kayser et al., 2007; Evans-Brown et al., 2009). Instead of branding these individuals with burdensome titles of ‘dopers’, which is associated to have a range of adverse consequences for athletes (Hong et al., 2020), we ought to offer support and guidance to these athletes and in doing so, better protect their health and well-being. By looking at the use of doping substances differently, we can begin to breakdown possible stigma and encourage users to engage with healthcare professionals, something previously identified as a barrier within harm reduction services (Brower, 2009; Evans-Brown et al., 2009; Havnes & Skogheim, 2019). What is more, if we begin to shift our way of thinking

about the use of doping substances within recreational sport away from performance enhancement and towards a therapeutic light, then we can begin to consider and justify improved support services for these athletes. Without the relevant support services in place, I argue that recreational athletes will likely be exposed to a level of unjustifiable risk which will continue to threaten the health of these individuals.

At the beginning of this section, I outlined that the revised 2021 WADA Code outlines that amongst its fundamental rationale, it aims to promote and protect athlete health (WADA, 2020). Whilst I argue that this aim ought to be offered as the main defense for ADP, I have identified two areas of current ADP that ought to be considered for revision to better protect and promote athlete health. Having presented some recommendations to better promote and protect athlete health, I move to consider how harm reduction might also be offered to better ensure the notion of health. Below, I consider some of the main concerns to emerge throughout the interview data and detail how harm reduction units could be tailored within recreational Welsh rugby to shadow ADP and better protect health.

8.5 Harm reduction framework for recreational athletes and gym users in Wales

Having outlined some of the considerations that the WADA ought to consider to better protect athlete health, I move on to explore and present what specialist harm reduction units ought to consider. These suggestions are again, developed through the interview data and I identify some specific risk-taking practices that ought to be considered to better protect the health of recreational athletes.

During the interviews, various harms were identified, described and were associated with the use of doping substances. The perceived harms identified during the interviews were significant and were consistent with current literature (Evans-Brown et al., 2009; Llewellyn, 2010; Pope et al., 2014; McVeigh et al., 2017; Goldman; 2019; Mullen et al., 2020). Although I cannot pinpoint the exact behaviours that triggered the onset of harm, with genetic predispositions possibly contributing to adverse health effects (Hoffman & Ratmess, 2006), and age and lifestyle factors (Evans-Brown et al., 2009), I have identified a number of high-risk practices.

Utilising some of the existing literature that spans the harms associated with the use of AAS and the interview data, I construct a specialist harm reduction framework to address these risk-taking practices. Within this section, I detail what this framework would include and move to examine this framework.

To begin this section, it is important to note that I have adapted the harm reduction strategy outlined by the Pump Clinic (NICE, 2014). As I have previously pointed to, the Pump Clinic was established to reduce potential harm to iPED users and within this section, I adapt this model and reposition it within a recreational sports setting. I have adapted this model due to some of the reported benefits (NICE, 2014) and the notion that harm reduction has been somewhat successful in reducing harm to injecting AAS users. Within the following section(s), I detail the components of a specialist harm reduction strategy that is intended to protect the health of recreational athletes and gym users within Wales, with specific focus on Welsh rugby players. In the first section, I consider the types of information and advice that ought to be provided to recreational athletes and gym users within Wales.

8.5.1 Information and advice

During the interviews, Welsh rugby players outlined several different outlets for information and advice in relation to the use of doping substances. These included friendship networks, gym users and the internet via online forums. The majority of these information sources were unreliable, untrustworthy and were based upon previous user experiences. Participant (6) claims:

‘I got that from the gym I was training in at the time and spoke to a few people in there about how much to take, when to take it and how to use it, that’s when I started injecting and it all started from that point, at about 18 years old’ (P.6)

Participant (9) echoes a similar stance:

‘The shops, the boys from the gym, you would pick little bits up from different people and places. You would look at people and think well he’s in

good shape, I'll ask him what he's using. I'd look at those guys in good shape and think they obviously know what they are doing and think they obviously know more than someone who isn't in as good shape as them' (P.9).

The participants included within this investigation appeared willing to accept information from questionable sources and did little to challenge or seek more appropriate information or advice. This is concerning when we consider the potential harms associated with doping substance use and Larance et al (2008), outlines that an over-reliance on friendship networks for information and advice meant that misinformation is often shared amongst AAS communities. Moreover, Richardson et al., (2019) outlines that self-proclaimed experts share misinformation, contributing to harm and also inhibit AAS users from seeking more appropriate advice and information. These information outlets were largely unsupported by scientific evidence and increase the likelihood of harm within AAS using communities. Participant (5) explains:

'To be honest, I probably didn't do a lot of thinking back then, it was more to do with the circle I was in, the type of people that I was around and you would see somebody who might be a year or a couple of years older, that are bigger, that are in great shape, and rightly or wrongly they were involved in enhancement things that could help you look good and feel better and you the start to hear the talks of yeah, you don't get as many aches and pains and that was when I started to gravitate towards the thought of someone is offering me something here that's going to help me. I don't really know much about it but I'm going to do it because they look good and if I can look like them then I'm going to follow suit - they don't tell you about any of the risk at the time, it's all dressed up' (P.5)

Throughout the interviews, it was clear that recreational athletes were willing to listen to the advice of gym users. Mixing within these gyms, where drug use is perhaps more permissible, recreational athletes and gym users shared information and advice related to doping substances. Not only did participant (5) rely on gym users for information and advice but he also appeared to be heavily influenced by the individuals and these environments. The lack of knowledge and willingness to listen

to uninformed individuals is concerning and I argue harm reduction units ought to target these specific locations. In response to the sharing of misinformation and an over-reliance on friendship networks for advice and information, specialist harm reduction units ought to provide information and advice to recreational athletes and gym users within Wales, to minimise the likelihood of harm. Specialist harm reduction units would shadow ADP and better protect the health of recreational athletes who continue to flout the rules. This advice would include supported and referenced information and direct individuals to important guidelines to reduce the likelihood of harm. In response to information sharing within gymnasiums between recreational athletes and gym users, I argue that gym assistants should be trained to provide information and direct individuals to the appropriate channels. This is also something mentioned by Harvey et al., (2020) and could prove useful outlet to combat the spread of harmful misinformation within these environments. These strategies would encourage doping substance users to engage with harm reduction services and ensure that the information they seek and utilise is accurate, reliable and trusted.

During the interview's, participants outlined a range of drug use practices which demonstrated that individuals were willing to experiment with their bodies to achieve a particular goal. These personal experiments meant that users often used different drugs, in different quantities, for different periods of time and without breaks.

Participant (1) explains:

‘I used them from about 2 years and then stopped in September (2018) I used them all the way through that period with stopping’ (P.1).

This response outlines that there is a clear need for specialist harm reduction units to specify to recreational athletes and gym users within Wales, of the possible harms associated with these kinds of drug related practices. With regards to specific drug use advice, information should provide details of the substances individuals could use, the more typical quantities of those specific drugs, for what durations and stipulate more typical cycle lengths and break periods. Llewelyn (2010) details some more typically seen AAS use practices and access to this type of information might better prevent harm.

Further information should also outline Post Cycle Therapy (PCT) details, the drugs that are more commonly used, what to expect and any early warning signs. Griffiths, Henshaw, McKay & Dunn (2017), outline that running a PCT might help AAS users adjust, bringing hormones back within more typically expected ranges, by safely discontinuing AAS use. Thus, recreational athletes and gym users should be made aware of these strategies and be informed as to what they are and what they entail. Whilst some recreational Welsh rugby players outlined that they used PCT drugs, a number had little knowledge about PCT drugs or what this process entailed. This is concerning when we consider the potential health risks associated with imbalanced hormones levels and recreational athletes and gym users ought to be made aware of the harm reduction potential of running PCT. If individuals lack the relevant knowledge of these types of harm reduction practices, some athletes might be exposed to greater risks and experience adverse health conditions. Accordingly, specialist harm reduction units ought to provide recreational athletes and gym users within Wales, details of PCT, what it would entail, the potential risks and benefits. Once individuals have all the relevant information, they can make informed decisions that will potentially better protect their health.

During the interviews, it was notable that the majority of Welsh rugby players included within this investigation used doping substances for body image concerns. Related to these body image concerns, a small number of rugby players outlined that the use of doping substances was to look good on summer holidays and to impress women on nights out. Some of these individuals lacked in self-confidence and suggested that the use of doping substances was a way around these perceived negative feelings and emotions. Whilst there are notable harms associated with AAS (Evans-Brown et al., 2009; McVeigh et al., 2015, Goldman et al., 2019; Mullen et al., 2020), information should also point out the dangers of polypharmacy, and the notion that there are many unknown chemical interactions between different substances. Zahnow, McVeigh, Bates & Winstock (2020) outline that the combination of AAS, alcohol and recreational drugs can lead to cardiac distress, aggression and inhibit self-control. Thus, information and advice ought to increase awareness in relation to polypharmacy and highlight the possible adverse interactions between different substances. If rugby players are using doping substances to look

good on holiday and then consume alcohol or recreational drugs, then these individuals might experience adverse health effects. Not only is this a potential health risk to the individual, but aggression might also be a wider threat to public health. If an individual reacts badly due to the effects of polypharmacy, then this might put the health of others at risk. This is concerning and without this kind of information, these individuals will overlook important details and not fully acknowledge the possible health risks. This demonstrates the importance of this kind of research and the potential to develop specific harm reduction units to shadow ADP and protect the health of recreational athletes and gym users within Wales.

Participants included within this investigation outlined they would continue to use doping substances and disregard anti-doping rules and the possible health risks, however, these individuals outlined that they required information and advice to reduce the potential likelihood of harm. Whilst Public Health Wales (2020) and NICE (2014) provide some useful information and guidelines, many individuals included within the current investigation were unaware that these types of services existed. Thus, I argue that specialist harm reduction units ought to be established to shadow ADP and to better protect the health of recreational athletes and gym users within Wales. In the main, the information that these services would provide relates to the safer use of doping substances and these strategies somewhat accept that doping is set to continue. Information might include typical drug use practices, different substances, trusted sources of information, dosages, cycle length, break periods and mode of drug administration. In addition, information should also include details about PCT and polypharmacy. Next, I consider the provision of needles, syringes and explore the idea of testing doping substances.

8.5.2 Provision of needles and syringes

Currently, NSPs provide needles and syringes to drugs users and the Pump Clinic sets out guidelines for these provisions (NICE, 2014). In the UK, there has been successful harm reduction provided to injectable users of AAS (Bates et al., 2021), and providing safe needles and syringes is seen as an essential step to avoid the risk of infections and transmission of bloodborne viruses (Hope et al., 2015; Wells et al., 2017; Goldman et al., 2019), something identified as a public health threat (McVeigh

et al., 2017). Provision of needles and syringes is considered a necessary step to minimise adverse health risks and I argue that this approach is also necessary for recreational athletes and gym users included within the current investigation. A small number of individuals reported harms associated with injecting practices and if the provision of needles and syringes protects athlete health, then these steps ought to be included within the specialist harm reduction interventions that I have argued for. Notably, however, the Welsh rugby players included within this investigation were more likely to use oral doping substances over injectables and this would need to be considered within specialist harm reduction strategies. Mulrooney et al., (2019) highlights that oral AAS users are sometimes overlooked within harm reduction efforts and this is concerning when considering that this was the main route of drug administration within the current investigation.

Above, I have outlined that the provision of needles and syringes appears to be an important step towards harm reduction, something also documented by Bates et al., (2021). In this section, I identify that participants detail obtaining doping substances from a number of different and untrusted sources and I argue that specialist harm reduction units should include drug testing services for recreational athletes. During the interviews, participants outlined that they obtained doping substances through online sources, websites, forums, face-to-face sources, through friendship networks, gym users and team-mates. Whilst some recreational athletes quoted that they used an online rating system similar to that of a holiday or product review, others appeared to trust, accept or completely overlook the health risks associated with the quality of doping substances. Obtaining doping substances from untrusted and unknown sources might contribute to potential health risks and it is notable that doping substances could be counterfeit, contain unknown and unlisted ingredients, be contaminated and mislabeled (Evans-brown et al., 2009; Llewellyn, 2010; Sagoe et al., 2015; Friedman, Arad & Amotz, 2016). Due to the potential health risks associated to these dubious substances, I argue that this presents a public health risk and suggest that specialist harm reduction strategies, ought to offer testing services to determine the safety and efficacy of these substances prior to their use.

Testing doping substances prior to their use could operate similar to that as seen within music festivals. At music festivals, drug testing services provide quick and

efficient measures to ensure the quality of a specific drug. The testing services establish the different compounds in that substance, the quantities of those compounds in that substance and their safety (Measham, 2019). If specialist harm reduction services were to offer these types of services to recreational athletes and gym users within Wales, we might be better able to determine harmful substances and better protect the health of these individuals. If drug testing identified a potentially harmful ingredient within that substance, specialist harm reduction units could issue online warnings, raise awareness and alert people of the potential health risks. Identifying potentially harmful and unsafe substances prior to their consumption would act towards harm reduction and better protect the health of these individuals.

Having explored the provision of needles, syringes and discussed the notion of drug testing, I move on to explore and consider the type of support recreational athletes and gym users might need when using these substances.

8.5.3 Support, monitoring, assistance and drug administration

During the interviews, I identified that some recreational athletes who injected doping substances experienced harm due to their choice of drug route administration. A small number of participants reported abscesses, bleeding, bruising, infections to injection sites and the formation of scar tissue. In one case, a participant discontinued AAS abruptly due to difficulties injecting and breaking through scar tissue. If users were injecting doping substances within a specialist harm reduction clinic, a trained medical professional would ensure that the correct injecting techniques were used and also ensured the safe disposal of used needles. This would reduce the possibility of needle sharing within these communities and reduce the likelihood of bloodborne viruses (Wells et al., 2017; Goldman et al., 2019), something previously noted as a public health threat (McVeigh et al., 2017).

Although there were no reports of needle sharing within the interviews, some participants reported group injecting practices. This would include friends administering doping substances to others and I argue where there are group injecting practices, there is potential risk of needle sharing. To navigate any potential

risks to the individual and to public health, a medical professional could administer or supervise users when administering these substances. Public Health Wales (2020) provide a short film/video to demonstrate correct injecting techniques and similar strategies could be offered to inform recreational athletes and gym users within Wales, about how to correctly and safely inject substances. Although these types of videos might encourage new and additional doping substance use, the information they provide is intended to reduce harm to current and existing users. If specialist harm reduction units were not to provide any information for the reason that it might encourage additional use, we would have to be in agreement that those currently using these substances would be exposed to preventable health risks. I find this morally problematic and although videos and short films might encourage additional and new substances use, these videos appear to present a cost-effective and simple way to combat a potential public health risk.

Whilst some studies have noted that NSPs provide a location whereby users seek information, advice and clean needles, a recent study outlined the potential for oral AAS users to be overlooked within these interventions (Van De Ven et al., 2020). Within the current investigation, Welsh rugby players were more likely to use oral doping substances and out of the participants who injected doping substances and used NSPs, there was a reluctance to use these facilities due to the possibility of stigma and the association with other psychoactive drugs including heroin. Rugby players perceived their drug use to be completely different to other kinds of drug users accessing these facilities and did not want to be tarnished with the same brush. Fear of shame and stigma inhibited individuals from engagement with harm reduction services and some recreational athletes purchased their equipment online to navigate these concerns. Harvey et al., (2019) identified similar barriers and suggested that AAS users were deterred from using NSPs due to the fear that they would be judged similar to that of a heroin user. Further barriers were identified whereby individuals did not trust the advice provided by healthcare professionals, with the media fueling mistrust, shame and stigma (Evans-Brown et al., 2009; Hildebrandt et al., 2015; Griffiths et al., 2016; Zahnnow et al., 2017). For these reasons, it is important that specialist harm reduction services consider novel ways of engaging with oral users and also consider ways of gaining trust and to break down any associated shame and stigma. Until these perceptions are overcome, athletes will

be unlikely to engage with harm reduction services and will continue to risk their health.

Having explored the type of support harm reduction units would provide to recreational athletes and gym users within Wales, I move to consider further approaches that ought to be considered to better protect athlete health.

8.5.4 *Bloodwork and Support Networks*

During the interviews, a range of perceived harms were detailed by recreational athletes and these sometimes concerned serious physical and psychological events. The Pump Clinic (NICE, 2014), details that users of the facilities can pay for bloodwork analysis and manage any abnormalities in blood lipid profiles. Within the current investigation, a small number of participants detailed the use of bloodwork analysis, but there were notable differences between the use of these services. One participant detailed pre, during and post bloodwork analysis and another participant noted just post bloodwork analysis. In addition, no participants outlined that they used bloodwork analysis from the onset of substance use, with more experienced users appearing to use these services. The variations in the use of these services is interesting and the potential benefits related to harm reduction ought not be overlooked. Bloodwork services are able to detect abnormalities in blood lipid profiles which perhaps do not present themselves in a physical sense. In terms of harm reduction, these types of services appear vital to detect health risks, however, their use was not common amongst the study population.

Christiansen, Vinther & Liokaftos (2017), argue that there is a typology of AAS users, with four different categories. There is the 'yolo' type, the 'athlete' type, the 'well-being' type and the 'expert' type. Each of the different categories are said to have specific tendencies, with individuals placing value in different areas and are motivated by different goals. It is said that the 'expert' type is the most health conscious and the 'yolo' type is the least health conscious. Christiansen et al., (2017) suggests that the 'expert' type is more likely to access bloodwork analysis. Whilst these individuals are categorised as 'expert' types, one must not be mistaken to think 'expert' types are not exposed to health risks. I prefer the term 'experienced', as

‘expert’ implies that these individuals do everything by the book. A small number of participants fell within this what would be considered ‘expert’ types; however, these individuals were willing to experiment with different substances, in different dosages and over different durations. Whilst these individuals may well be concerned with their health, I argue that ‘expert’ types also engaged in risk-taking practices. Although these individuals outlined that they were likely to run a PCT or undertake bloodwork analysis, there were differences between how bloodwork analysis was used and analysed. What is more, these individuals appeared to pick up knowledge through experience and overtime using these substances. Thus, these individuals perhaps started out within different categories and progressed into ‘expert’ types.

Zahnaw, McVeigh, Bates, Hope, Kean, Campbell & Smith, (2018), support the typology model, identifying that different users fell into different risk profiles and the motivations of substance use ought to be given particular attention as this was said to influence typology categorisation. This is an important consideration when establishing specialist harm reduction services within Wales and this is also something identified by (Vinther & Christiansen, 2020). Vinther et al., (2020) argues that harm reduction can be tailored to respond to specific populations and specific typologies. Thus, the typology model ought to be considered within the establishment of specialist harm reduction units for recreational athletes and gym users within Wales. For example, if we are able to determine which typology recreational rugby players more often than not, fall into, then this might help shape harm reduction strategies and better protect athlete health. Whilst typology models outline specific categories of drug users, the model is not static, nor should it be considered in that way. It is possible that athletes could move between categories and some individuals might find themselves on the borderline between two or more categories. This would impact the application of the typology model and would have to be considered within the construction of specialist harm reduction strategies that utilise the typology model.

Say we can determine that the majority the recreational Welsh rugby players fell within the ‘yolo’ type, this would allow public health bodies to shape specialist harm reduction units to respond directly to the concerns evident within this specific population. Due to the fact that few individuals utilised the services of bloodwork

analysis, specialist harm reduction units could increase awareness that these types of services exist, stating their importance and also providing athletes with direct access to these types of services. Specialist harm reduction units ought to provide guidance when and how bloodwork analysis should be undertaken and also detail the importance of bloodwork analysis before the use of any doping like substances. Bloodwork analysis prior to substance use is important to identify and detect individual risk factors and should also be conducted throughout drug use to monitor blood lipid profiles and to detect any deviations from typically expected ranges. Specialist harm reduction units ought to raise awareness and provide recreational athletes and gym users within Wales, with all the options to reduce potential health risks.

One of the more concerning harms to surface during the interviews were perceived psychological harms. Psychological harms were diverse in nature and appeared to impact individuals in a number of different ways. Reference to the withdrawal from AAS was related to several different and harmful outcomes including perceived depression and the development of dependency. Maravelias et al., (2005) state that depression and AAS cravings may occur when discontinuing AAS, with withdrawal symptoms including: anxiety; irritability; insomnia; hot flashes; sweats; chills; anorexia; myalgia; nausea; vomiting; piloerection; tachycardia and; hypertension. AAS users who become dependent on AAS are more likely to take higher dosages of AAS, take shorter breaks between AAS cycles, or use continually use AAS (Havnes et al., 2019). These drug related practices increase the potential health risks related to the use of doping like substances. Due to these risk factors, specialist harm reduction units ought to offer psychological support to help recreational athletes and gym users throughout periods of withdrawal and focus on transition and coping methods from these substances. Support should be ongoing and encourage individuals to engage with healthcare professionals on a regular basis. Notably, Bates et al., (2019) outlines that there is limited evidence to support AAS users through withdrawal and for AAS users who become dependent. And whilst there is a clear lack of evidence to support AAS users during these periods, there is a clear demand for these types of services. Harm reduction units should consider how best to address this current gap and better protect the health of recreational athletes and gym users who will continue to use these types of substances.

Within the current investigation, there were several reports of perceived aggression during periods of substance use. Dunn et al., (2016) outline that there is an expanse of literature suggestive of an association between AAS use and acts violence and aggression. Due to these concerns and for the purpose of harm reduction, both to the individual and public health, specialist harm reduction units ought to consider ways to manage anger and aggression for recreational athletes. If harm reduction units included anger management or coping mechanisms or raised awareness that some individuals may react in an uncontrollable manner, this could better protect the individual and the wider general public from harm. If recreational athletes and gym users are unaware of these potential risks prior to the use of these substances, then these individuals will be unlikely to make informed decisions prior to the onset of substance use.

It was also notable that a number of rugby players were concerned with their physical appearance and used doping substances to combat these body image concerns. In wider literature, Mills & Giles (2017) report that there are high levels of body dissatisfaction amongst rugby players. This is concerning and perhaps points towards something that needs to be considered within the development of specialist harm reduction units in Wales. A number of recreational athletes and gym users included within the current investigation outlined that they were concerned with the way they looked and decided to use doping like substances to overcome these concerns. These concerns appeared to be influenced from a range of socioecological factors and Bates et al., (2019) outlines the importance of socioecological factors within the consideration and construction of harm reduction efforts. Kanayama et al., (2020) states that AAS users can become concerned that they are not sufficiently muscular even when these individuals are muscular. This is concerning and perhaps suggests that individuals will take fewer and shorter breaks when using doping substances, use substances in greater quantities, be more willing to experiment with new drug related practices, use multiple drugs in combination with others and remain on substances for extended period of time without a break. Thus, body image dissatisfaction might encourage greater risk-taking characteristics and contribute to adverse health risks. Consequently, I argue that specialist harm reduction strategies within Wales, ought to consider and attempt to combat body image dissatisfaction

amongst recreational athletes and gym users. Once again, this highlights the importance of qualitative research to understand these populations, to be able to provide insightful evidence to support the recommendations towards harm reduction. Without the knowledge and understanding of these specific details, we risk overlooking key concerns and we will fail to protect the health of these individuals.

Due to the notion that recreational athletes and gym users want to access advice, it appears important to consider a novel approach to engage with this population. There is clear evidence of perceived harm amongst the study population and there is also clear evidence that these individuals will continue to use doping substances regardless of the health risks or whether it is contrary to anti-doping rules. Thus, due to the strong desire to continue using doping like substances, I argue that specialist harm reduction, through public health bodies, would be the most appropriate response to combat the adverse health concerns associated with substance use. Whilst I acknowledge several challenges to such an approach, for example, encouraging these problematic norms, I argue that the strength of specialist harm reduction within Wales would outweigh the negatives.

Having explored what ought to be included within a harm reduction strategy for recreational athletes and gym users within Wales, I defend and explore why the health of athletes is worth fighting for.

8.6 Health; The fundamental rationale

Having argued that public health bodies ought to run specialist harm reduction units alongside the current ADP and better protect the health of recreational athletes and gym users in Wales, I move to consider why health is such an important notion to protect. I argue that health is the most significant argument within this proposal, both in terms of ADP and harm reduction. Below, I will ethically explore and examine this notion.

8.6.1 Health

There is a growing body of evidence supporting the positive outcomes of harm reduction initiatives (Ritter & Cameron, 2006; Edwards et al., 2011; NICE, 2014; Van der Eijk, 2016; HRI, 2020; Bates et al., 2021). Not only do these interventions reduce harm, but some interventions have also been successful towards preventing the risk-taking behavior altogether. Whilst these interventions span and target a number of different risk-taking practices, the success of harm reduction in wider fields provides some encouraging evidence.

Harm reduction strategies encourage positive and incremental changes over time, they aim to minimise the negative consequences of a behaviour without coercion (HRI, 2020), and in doing so, protect and promote health. If public health bodies were to run specialist harm reduction strategies alongside ADP, we could perhaps see fewer recreational athletes and gym users engaging with high-risk drug related practices and see better health promotion.

The potential to reduce harm is important as it was noted that the current anti-doping approach did little to deter doping substance use amongst the study population. By failing to deter and prevent doping, I argue that ADP also fails to protect athlete health. The revised WADA 2021 Code outlines its fundamental rationale is to ensure doping-free sport, protect the integrity of competition and to promote and protect health (WADA, 2020). Although the WADA cite health to be amongst its fundamental rationale, I argue that this aim is largely unattainable due to the position of anti-doping to ensure doping-free sport. Anti-doping cannot be seen to be tolerant towards the use of doping substances in sport and they are unable to provide information which might protect the health of athletes if they do decide to use doping substances. ADOs are unable to provide harm reduction type information due to the fear of mixed messages (Christiansen et al., 2020), and this is concerning when Welsh rugby players outline that they will continue to use doping substances no matter what the anti-doping rules might be. Thus, if public health bodies were to provide specialist harm reduction, tailored for recreational athletes and gym users alongside ADP, we could perhaps better protect the health of individuals.

Not only does the current ADP fail to protect the health of the recreational athletes included within this investigation, but it is also noted that the current anti-doping

approach might drive doping underground (Evans-Brown et al., 2009). Due to the punitive nature of ADP, some individuals are unwilling to engage with health care professionals as individuals fear shame and stigmatisation. Driving doping substance use underground potentially exaggerates harm and this should not be overlooked. Due to the fact that harm reduction strategies take more of a liberal stance towards the use of doping substances in sport, they can share a greater array of advice and information on the possible risks associated with doping substances. Not only would this advice help avoid preventable harm, but it also might contribute to the discontinuation of doping substances altogether. This is important when we consider the adverse health consequences associated with doping substances (Evans-Brown et al., 2009; Pope et al., 2014; McVeigh et al., 2015; Goldman et al., 2019; Mullen et al., 2020), including the hospitalisation of some users. In addition, due the possibility of HIV and bloodborne virus within AAS using communities (Hope et al., 2013; Hope et al., 2017), strategies to combat these health concerns appear even more pressing.

Whilst I have argued that harm reduction strategies might prevent adverse health risks associated with doping substances, there is limited evidence to support the effectiveness of interventions to prevent AAS use and to protect the health of individuals (Bates et al., 2019; Christiansen et al., 2020). What is more, harm reduction strategies might give off the green light to athletes and encourage further doping substance use. This undermines anti-doping efforts towards doping-free sport, and this ought not be overlooked. Whilst harm reduction strategies would aim to reduce harm and respect the decisions of people who use drugs, it cannot be said with any certainty that harm reduction strategies will better protect athlete health. If specialist harm reduction units were to encourage new and additional use of doping substances and also fail to protect the health of existing and new users of these substances, then the implementation of specialist harm reduction units appear morally problematic.

Although there is no guarantee that harm reduction strategies would reduce the health risks associated with doping substances, this is what they would intend to do. For harm reduction to be successful in reducing the potential health risks associated with doping substances, these services would require athletes to engage with these

types of services. A body of literature (Evans-Brown et al., 2009; Kimergård et al., 2014; Hildebrandt et al., 2015; Griffiths et al., 2016; Zahnnow et al., 2017), documents a number of factors inhibiting individuals engaging with health care professionals. Some AAS users fear stigmatization from medical professionals and distrust their advice, with some AAS users outlining medical professional lack credibility (Brower, 2009; Havnes & Skogheim, 2019), as they do not have personal experience of AAS use (Maycock & Howat 2005). It is also noted that some AAS users perceive medical professionals to lack the necessary knowledge and that medical professional would attempt to prevent them using these substances, something these individuals did not want to hear. Dennington et al., (2008) argues that a lack of credibility stems from the notion that healthcare professionals provide an unbalanced account of the possible health risks and Evans-Brown et al., (2009) also highlight how the media and ADP have contributed to harmful perceptions, shame and distrust within AAS using communities. Moreover, fear of anti-doping reprisal, accessibility and variability in the types of harm reduction services offered might also inhibit harm reduction (Kimergård et al., 2014). Finally, there is some suggestion that more masculine males would be reluctant to attend harm reduction as that might be a sign of weakness (Bates et al., 2019). Thus, even if harm reduction could prevent athletes from experiencing harm, there appears to be some challenges finding ways of successful engagement with these individuals. If athletes fail to see the benefits of harm reduction strategies, distrust the healthcare professionals who provide information or believe that they will experience stigmatisation if they attend harm reduction services, then the potential health benefits of these types of approaches will be inhibited.

During the interviews, athletes outlined a reluctance to engage with NSP due to the fact that these services were established to serve other illicit drug use. In particular, participants identified the drug heroin and outlined that they did not want to be categorised alongside heroin users. The potential of being categorised alongside heroin users was enough for some individuals not to use NSPs, as these individuals feared shame and stigmatisation. Participant (20) outlines his concerns:

‘No, I order everything online’ (...) ‘People who use needle exchange are people like crackheads and heroin addicts, I don’t feel like I’m like one of

those. I don't want to be associated with one of those, I just rather do it myself. You don't want to be putting yourself in the same bracket as them. It is not something you are proud of. Like the first time you use, you think what have I become, but people do far worse out there. It is not something you want to be seen doing' (P.20).

The fear of stigmatisation was enough to ensure this individual withheld from accessing appropriate and relevant support. Thus, this response challenges my proposal that harm reduction strategies, led by public health bodies, would better protect the health of athletes who decided to use doping substance. Notably, however, what I propose is something different to what is currently available. I suggest that specialist harm reduction units would be established with a specific role to protect the health of recreational athletes and gym users within Wales. Harm reduction units would shadow ADP and respond to those athletes that flout the rules and decide to use doping substances. If specialist harm reduction units were established with the specific aim to protect the health of recreational athletes, then this might build trust between the users of these substances and healthcare professionals, helping to break down potential stigma and association to psychoactive drugs. Participant (20) identifies further concerns related to healthcare professionals:

'You can use a GP, but I don't because I'd rather keep it off my medical records. Also, I've heard that some GP's will carry out work and some that do not. They justify not doing it on the grounds that you are doing it to yourself. Also, the understanding of a GP is extremely limited in that area. Some GP's advice people to stop using, some GP's will not know what to check, they might not know the appropriate health markers to check. There's lack of understanding from health professionals and I don't expect all GP's to know this stuff but if there was a centre that you could go for all this advice and support then that would be useful. It is rife within Wales so those centres would be used, it would make things far more safer' (...) 'Yeh, you will turn up and they are going to tell you that you shouldn't be using this but I'm clearly going to anyway, and I've got someone who doesn't understand it trying to tell me not too. Sometimes GP's don't like to give you the results,

you don't get the full feedback, I want to see the results, I want to see the way my blood work has changed' (P.20).

Participant (20) perceived that healthcare professionals lacked understanding and would attempt to prevent or deter substance use rather than assist. Whilst these were the perceptions and beliefs of one participant, this response outlines how perhaps harm reduction strategies might struggle to protect the health of individuals. This response echoes existing literature (Brower, 2009; Havnes & Skogheim, 2019), and details some of the barriers related with harm reduction strategies. Once again, if harm reduction strategies were to fail in their attempts to protect health, then the defense of this proposal appears less robust. Nonetheless, with the proposed establishment of specialist harm reduction units alongside ADP, it could be suggested that recreational athletes and gym users might be more willing to engage with services designed specifically for that purpose. Recreational athletes and gym users would be made aware that these services would be established to reduce the likelihood of harm and do not actively attempt to dissuade substance use. Responding directly to the health risks and the desires of recreational athletes and gym users who use these substances, the uptake of specialist harm reduction services might be more likely.

Some encouraging evidence supports that harm reduction services might prevent harm. Harvey, Keen, Parrish & Van Teijlingen, (2019) note that NSPs provide a valuable location for information and advice sharing, suggesting that some AAS users value these services and would prefer to access these facilities over regular doctors. Moreover, Bates et al., (2021) documents that the UK has successfully introduced harm reduction for injectable users of AAS. If specialist harm reduction units ran alongside ADP, then this might better protect the health of recreational athletes that breach anti-doping rules and decided to use doping substances. Whilst I support and defend the inclusion of ADP and its aims, I am also very aware that recreational athletes will continue to use doping substances no matter what the anti-doping rules might say. Responding to this point, we must attempt to overlook the moral concerns surrounding the use of drugs and breaches of ADP and look towards ways to better protect health and the lives of the individuals who decide to engage in these risk-taking practices. Failure to respond to these risk-taking practices will

likely see further individuals experience harm and I argue that it is morally problematic to overlook and allow these preventable harms to occur.

Further positive outcomes are identified within a review of the Pump Clinic (NICE, 2014). The review of the Pump Clinic identified that individuals were less likely to engage in higher-risk drug use practices, with some individuals discontinuing drug use completely after engagement with these services. These findings are encouraging and provide further evidence to support the proposal of specialist harm reduction services within Wales. An additional defense of the proposal to establish harm reduction units specifically for recreational athletes and gym users within Wales can be found within the notion that few recreational athletes accessed the existing NSPs. During the interviews, only a small number of participants were aware of NSPs, with others relying on friends to pick up needles and syringes or ordering equipment online. These practices meant that some participants were missing out on important information and advice concerning harm reduction and as a consequence, were perhaps more likely to engage in risk-taking drug taking practices. If specialist harm reduction units were to be established to support the needs of recreational athletes and gym users within Wales, then these individuals might be more likely to use services designed specifically for their needs.

Although I have argued that harm reduction units might better protect the health of athletes, Van De Ven et al., (2020) outlines that NSP cater for individuals who inject AAS but overlook a large community of individuals who only use oral AAS. This is particularly concerning when we consider that the majority of Welsh rugby players used oral doping substances or initiated the use of doping substances through orals and then later moved to injectables. If these important details are overlooked, then harm reduction strategies will be likely to fall short and recreational athletes will continue to risk their health whilst using these substances. For harm reduction to be successful in protecting the health of recreational athletes and gym users, further research would need to establish the needs of specific populations. If we overlook important details with regards to specific drug use characteristics, then we are less likely to provide relevant and appropriate support to protect health. A number of socioecological factors (Bates et al., 2019), would have to be considered within proposals to ensure any move towards harm reduction is necessary and appropriate.

The establishment of specialist harm reduction units designed specifically for recreational athletes and gym users within Wales, would need to consider these factors and be developed upon research and understanding. Without this understanding, we will lack the necessary information required to protect the health of these individuals.

As I argued previously, the protection of health provides strong justification to implement specialist harm reduction strategies for recreational athletes and gym users. Notably, however, I justify harm reduction strategies on the basis that they would protect health and if harm reduction strategies fail to protect the health, then their justification appears more questionable. Due to the fact that harm reduction strategies do not aim to prevent substance use, it might be suggested that this proposal could encourage additional individuals to use or consider the use of doping substances. These individuals may not have thought about the use of doping substances previously, with harm reduction strategies giving off the ‘green light’, that it is safe to do so and encourage additional drug use. This is concerning when we consider the health risks associated with doping substances (Llellewyn, 2010; McVeigh et al., 2015; Mullen et al., 2020), and the notion that additional drug users might be exposed to these risks. If harm reduction strategies were to have limited efficacy when we consider health protection and encourage further individuals to use doping substances and expose these individuals to health risks, then this is morally problematic and would be a criticism of this proposal.

At the beginning of the section, I argued for specialist harm reduction units to be established for recreational athletes and gym users within Wales. Whilst health protection would be the aim of this proposal, some participants detailed risk-taking practices that perhaps demonstrate that younger individuals did not fully value or consider their health. Whether this was age-related, naivety, complete disregard or ignorance, failure to acknowledge health is a concern and would challenge this proposal. If recreational athletes and gym users fail to value or acknowledge the importance of health, then this might inhibit the aims of harm reduction and reduce the credibility of this proposal. Participant (20) outlines:

‘When I first used, I was completely clueless about what I was doing, I didn’t know what I was doing, what I was putting into my body or aware of any of the risks. These were anabolic steroids, I didn’t think twice about it at that time, I didn’t consider my health once’ (...) ‘The first time, not at all. I think because I didn’t really know much about it, I didn’t do much research about it at all, I didn’t consider that there would be health risks, it wasn’t something I considered at all. The second time I did more reading, I knew the health risks, I went through a proper PCT, but the overall benefits outweighed the risks. I don’t think I really considered the risks the first time because I was younger, I didn’t really do that much thinking around it’ (P.22).

If recreational athletes and gym users fail to value, consider and acknowledge their own personal health, then participation and willingness to engage with harm reduction might be less likely. This is concerning when we consider the health risks associated with doping (Llewellyn, 2010; McVeigh et al., 2015; Mullen et al., 2020), and the defence of the proposal to establish specialist harm reduction services for recreational athletes and gym users within Wales. If harm reduction strategies fail to protect health, then the proposal to establish specialist harm reduction services specifically for recreational athletes and gym users appears less robust. Nonetheless, this is exactly what harm reduction strategies would intend to do. Harm reduction is designed to raise awareness by providing the relevant and necessary information to individuals. This information allows those engaging in the risk-taking practice to consider an array of options which would act to promote and protect health (HRI, 2020). This information might include raising awareness to the possible health risks and ensure that individuals are informed so that they can act more thoughtfully. Responding directly to these risk-taking practices, whether individuals’ value, consider or acknowledge their personal health, individuals will likely be better protected from these risk-taking practices.

One of the most concerning and problematic health concerns detailed during the interviews were the perceived experiences of psychological harms. It is notable that current ADP would do little to support recreational athletes suffering with psychological harms - thus, the establishment of specialist harm reduction services

would better respond to the serious, diverse and complex nature of these adverse health problems. Participant (1) details some of the perceived psychological harms:

‘I had acne and it does fuck with your head a bit. When you come off you go from being on a massive high, right down. When I came off, I was depressed as fuck, for a couple of months but I’m okay now’ (P.1).

Harm reduction strategies have the potential to provide support, listen and respond in a non-judgmental manner and provide the means to be compassionate, caring and considerate. I argue that these notions are fundamental when considering the psychological harms associated with the use of doping substances and the range of motivations outlined to use these substances.

During the interviews, athletes described diverse and complex factors that triggered doping substance use. Due to the nature of these factors, they require empathy to support and respond appropriately. These motivations were primarily related to body image concerns and was unrelated to sports performance. This is also something identified within a report published by UKAD (2020), with the report suggesting that doping substance use was not just a sporting problem but also a societal issue. Unlike ADP, harm reduction strategies are able to respond more compassionately and provide emotional support to individuals who might be suffering with adverse psychological health concerns. Whilst this ought to be considered a strength of these strategies, harm reduction perhaps reinforces problematic norms and acts to encourage these behaviors. Harm reduction strategies help individuals adhere to problematic norms and perhaps even the harm itself. This is particularly concerning when we consider the notion of health and the notion that harm reduction is grounded in the fact that it aims to protect health. If harm reduction strategies reinforce problematic norms and help facilitate a shift in our perceptions and thinking, to consider these problematic norms to be more permissible or accepted, then this is potentially harmful not just to health, but also towards ADP and sport.

Having explored the notion of health, I will now offer a short conclusion before offering a more detailed account and final remarks.

8.7 Conclusion

Within this chapter I have proposed the notion of specialist harm reduction services to be established within Wales, to better protect the health of recreational athletes and gym users. During the interviews, it was clear that Welsh rugby players and gym users were not yet willing to stop using doping like substances and these individuals engaged in an array of risk-taking practices. Notably, the main motivation to use doping substances was driven towards body image concerns and not performance enhancement. Although body image was the main motivation to use doping substances, there appears to be a broad and complex range of socioecological factors that can also influence the decision to use doping substances (Bates et al., 2019). As a response to these concerns, and acknowledging the limitations of anti-doping efforts, I suggest that public health bodies ought to take on the main responsibility to reduce the health risks associated with doping substance use amongst recreational athletes. Currently, the WADA, ADOs and NADOs are limited to the type of information and advice it can provide to athletes due to the fear of mixed messages. Moreover, due to the punitive nature of anti-doping, some doping behaviours have been driven underground and receive stigmatisation. Thus, anti-doping might in fact, inhibit harm reduction strategies and further risk the health of individuals using these substances.

Unlike previous arguments for supervised doping within sport, I propose that ADOs and public health bodies ought to work alongside each other to better ensure the health of recreational athletes. Although the WADA and ADOs cannot be seen to support the type of information as seen within specialist harm reduction strategies, the two bodies share some common ground. Both the WADA and public health bodies are concerned with health and the revised 2021 WADA Code has placed ever greater emphasis on the notion of health (WADA, 2020). For this reason, I argue that ADP ought to retain its position towards doping-free sport and public health bodies provide specialist harm reduction services to protect the health of recreational athletes and gym users within Wales. Together, with these two approaches, we can reasonably predict that the health of individuals will be better supported.

Doping within recreational sport is not just a sporting issue, but it is also a problem within society (UKAD, 2020). Due to this point, the scale of the problem, the potential seriousness of the health risks and the threat to public health, I argue that public health bodies are best placed to combat these health concerns. What is more, the Welsh rugby players included within the current investigation argued that they were unwilling to give up doping substances and Harm reduction international (2020) outlines that it is designed for individuals who are not yet willing to stop a specific problematic behavior. Again, this provides justification why public health bodies appear best placed to protect the health of these individuals.

Whilst I understand and acknowledge there are several concerns with a move towards harm reduction and that ADP and harm reduction strategies somewhat oppose one another, the health of individuals should not be overlooked. I find it immoral to ignore the use of doping substances within recreational sport and the possible health risks associated with the use of these substances. I argue that there is a moral obligation to protect the health of recreational athletes and general public and failure to do this will result in greater harms. Moreover, due to that fact that ADOs struggle to prevent and deter doping within recreational sport, I argue that they ought to allow public health bodies the leniency they require to protect the health of athletes. Without this support, athletes will continue to experience avoidable and preventable health risks.

CONCLUSION

In the forgoing account, I concluded that the adverse health conditions experienced by recreational athletes warrant further policy attention. I have argued that the serious and diverse nature of the harms associated with doping substance use ought not be overlooked and that both ADOs and public health bodies have a duty of care to better ensure the health of athletes and the general public. This final chapter provides a retrospective summary of the accounts detailed previously and moves to offer some recommendations in response to these arguments.

9.1 Summary

The use of doping substances within sport, both within elite and recreational levels, has long been a problem for sport and ADOs. Whilst there is a wealth of research focusing on elite populations, gymnasiums and bodybuilding communities, much less research exists concerning recreational sport. What is more, there is no research examining recreational levels of Welsh rugby, an area identified to have a disproportionate number of anti-doping sanctions. Anti-doping was established as a response to problems within elite sport, and although the WADA 2021 Code makes some amendments, enabling greater leniency in the sanctioning of recreational athletes, concerns remain. In essence, anti-doping policy fundamentally operates similarly in both elite and recreational sporting populations.

The use of doping substances is not just a matter of sporting integrity, rule breaking and cheating, but it is a matter of health. Existing research highlights the diverse, complex and serious nature of the health risks associated with doping substance use, and this raises some concerns (Evans-Brown et al., 2009; Llewellyn, 2010; McVeigh et al., 2017; Mullen et al., 2020). Within elite sport, the main motivations to use doping substances are related to sports performance, whether this be direct performance enhancement, recovery or at pressure points during an athletic career, including off-setting retirement, vulnerability to financial incentives and response to injuries (Bloodworth et al., 2010). What is more, as these athletes are elite athletes,

they have greater resources, medical teams, sport scientists and coaches to improve their performance, training and recovery. Thus, it might be said that elite athletes using doping substances often do so within a controlled manner or at least under the guidance or supervision of experts. On the other hand, recreational athletes have a greater diversity of motivations when the use of doping substances are considered. Although some recreational athletes might use doping substances for performance benefits, the current investigation noted that it was body image concerns that drove doping substance use. It is also suggested that there is a complex web of influential factors that can contribute to doping behaviours, highlighting doping to be a concern not just for sport, but also public health. Due to the cultural factors that can influence doping, and the range and seriousness of the adverse health conditions associated with doping substance use, it appears that doping is not just a sporting problem, but also for wider societal and public health issues. Recreational athletes, who have less resources at their disposal, might use doping substances without qualified guidance and seek the unvalidated advice of gym users or from online websites. These individuals are more likely to engage in risk-taking practices and are perhaps at greater risk when compared with elite athletes. The WADA appear to have responded to these health concerns, and the revised 2021 WADA Code places greater emphasis on the notion of health than previous versions. Whilst the WADA seeks to protect and promote athlete health by eliminating cheating through neutralising performance enhancement via doping, it is clear that doping concerns continue to persist in sport. Due to the fact that doping continues to cause problems, there is an undeniable risk to health.

One particular area of concern, recreational Welsh rugby, has seen the media heavily report on doping issues, suggesting that lower-level Welsh rugby is a site of doping prevalence (reflecting more general steroid misuse in parts of south Wales: Grace, Baker & Davies, (2001) and Baker, Thomas, Davies & Graham, (2008)). The current UKAD sanctioning list supports these claims, with 13% of all current anti-doping sanctions issued by UKAD to Welsh rugby players and additional scientific literature documents lower-level Welsh rugby to receive a disproportional number of UKAD anti-doping sanctions. Although there is a growing body of research into aspects of steroid misuse in this region, no studies have specifically explored the recreational rugby population therein.

Within the undertaking of this research, I conducted a series of qualitative interviews with recreational Welsh rugby players (n=13) and gym users (n=9) who had used doping substances. During the interviews, I worked hard to explore and understand each individual story and pushed each individual to understand the specific details of each doping account. Participants were from the South West Wales region and were all male. Although each participant had a different story behind their motivation to use doping substances, in the main, the use of doping substances was related to body image concerns. Participants were unhappy with the way they looked, often compared themselves to others, lacked in self-confidence and held the belief that they were not sufficiently muscular. Some participants reported that they were overweight or held too much body fat and others reported instances of bullying through childhood. Others reported that they were shorter than other males and felt like being more muscular was a way to overcome these concerns. It was also noted that there were a range of influential factors that contributed to motivations: training within gyms with other doping substance users, conversations, prevalence, permissibility and accessibility; and attending university where doping substance use appeared permissible and widely accessible. Whether participants were aware of these influential factors is both concerning and interesting. Moreover, what is clear, is that there was a clear breadth of influential factors contributing to the use doping substances. Notably, participants outlined engaging in a number of high-risk doping behaviours; with the use of multiple substances; for durations longer than typically expected; in quantities above those outlined within current recommendation guidelines and the reliance on friendship networks for information and advice; and so on. Moreover, doping substances were attained from untrusted sources, without any form of quality checks, further adding to health risks. Related to these high-risk doping behaviours was the adverse health consequences experienced by some participants. Perceived health risks were the most problematic point to come out of the interview data and athletes detailed experiences of diverse, serious and complex harms to health. Whilst harms might be influenced by a genetic predisposition, age, life-style choices or sex (Evans-Brown et al., 2009), it was clear that a number of participants suffered with perceived physical and psychological harms. These health concerns were complex in nature, with some individuals requiring hospitalisation.

As a response to the concerns that athletes are using doping substances, are engaging in risk-taking practices and that ADP appears to struggle to prevent doping and protect athlete health, I ethically examine three potential policy responses. This approach was adapted from healthcare ethics and presents three options to this problematic, risk-taking behaviour: (1) to prevent it; (2) to allow it; and (3) to supervise it. I adapted this model and applied it to the problem of doping within recreational Welsh rugby.

Response (1) to prevent it: this response would require strengthening current anti-doping efforts, in the hope that it would improve anti-doping deterrence and reduce the likelihood of doping. Here, I discussed the notion of increasing anti-doping control tests and increasing the length of anti-doping sanctions. Whilst I am willing to concede that these steps might improve anti-doping compliance, I identified a range of ethical challenges to this proposal. I argued that increasing the number of doping tests within recreational sport is morally problematic, with the privacy of athletes the major ethical concern. What is more, to increase the length of anti-doping sanctions, one would have to agree that the period of illegibility is proportional to the act of doping within recreational sport. I also rejected this line and argued that it was morally problematic. The potential for unintentional doping offences is of concern here, with few recreational athletes having received any anti-doping education. This is problematic when considering both increasing the number of doping control tests and extending anti-doping sanction length within recreational sport. What is more, when we consider the emotional vulnerabilities associated to athletes during sanctioning periods, I argue that this exposes athletes to unnecessary and unjustified risks. These risks, I have argued, cannot be relied upon to better ensure ADP adherence and thus the justification that athletes' health would be better protected cannot be sustained. During the interviews, athletes argued that they are unfazed by ADP and would rather use doping substances than participate in sport. Thus, athletes will likely continue to use doping substances outside of sport, continue to risk their health and continue to pose a public health risk.

Response (2) to allow it: this response would entail the abolition of ADP, allowing athletes to use doping substances and do away with concerns surrounding ADP adherence. Whilst the abolishment of ADP would prevent concerns around doping-

free sport and sporting integrity, it could potentially lead to additional use of doping substances. Moreover, it can be argued to be coercive for some athletes, and lead to an increase in the number of individuals who experience adverse health conditions. What is more, the threat to public health remains and again, this policy proposal was rejected.

Response (3) to supervise it: this policy response would make provisions to allow doping under medical supervision. This proposal could include allowing athletes to use doping substance up-to specified cut-off levels, testing for health markers (as opposed to doping substances) and to allow doping under medical guidance, through administration and provision of doping substances. Whilst this response might limit some of the adverse health concerns associated with doping substance use, it is directed towards elite athletes who use doping substances for performance enhancement. What is more, some of the beneficial health claims might go amiss, with athletes using additional substances beyond those prescribed by doctors and attempting to push beyond cut-off levels. In addition, athletes who previously had not considered doping, are likely to feel it necessary to use doping substances, forcing athletes into unfair and unjustifiably risky decisions. Thus, I argue that supervised doping fails to adequately protect the health of athletes and would also change the way sport is played. Thus, moves to allow doping under medical supervision are also rejected.

Having rejected three potential policy solutions: (1) to prevent doping in recreational sport (2) to allow doping within recreational sport; and (3) to supervise doping in recreational sport, I offer a final policy recommendation. This final recommendation that I offer is informed and constructed through the interview responses and with the notion of health at the forefront of these concerns.

9.2 Recommendation

It is notable that sport and ADP plays a vital role within society, helping to shape, guide and construct moral norms, beliefs and behaviours. These values hold importance not just within sport, but also within wider society. ADP intends to protect this fundamental good, and also, aims to protect and promote athlete health in

the process. Without ADP in place, athletes would be allowed to use doping substance, shifting moral norms and potentially risking the health of further individuals. ADP aims to protect not only athlete health, but also the health of the general public. This can be seen through the Prohibited List of substances and methods specified therein. A number of these substances are harmful to health, however, with the UK, the majority of these substances are not illegal *per se*. Thus, individuals outside of organised sport can freely use these substances if they wish to do so. This is particularly concerning when we consider that these substances pose serious health risks. Yet, ADP acts to dissuade not only athletes, but also the use of doping like substances within the general public. The use of doping substances is portrayed in a negative light, one that acts to prevent and deter doping substance use. For these reasons, ADP can be seen to promote and protect health and ought to retain its position but consider making a number of amendments to better ensure protect the health of athletes.

Whilst ADP intends to protect doping-free sport and protect and promote the health of athletes, some athletes will continue to dope and continue to risk their health in the process. The range and seriousness of the health concerns spoken about during the interviews is deeply concerning, with some individuals requiring hospitalisation. A number of athletes spoke about feelings of depression, dependency, withdrawal and aggression and this presents a potential risk not just to the individual, but also to the wider public. For an individual to use doping substances and harm themselves is one thing. If, however, the use of doping substances leads to the harming of another, then this is a direct concern for civil society. These harms generate the basis for doping to be seen as a problem for public health.

As the WADA and other ADOs were established on a sport platform to protect doping-free sport for elite athletes, I argue that the ADP they have generated, is unable to fully protect and promote health. An independent body, such as a public health organisation, that has the freedom to ensure athletes have the most appropriate and relevant information and care, appear better placed to protect the health of athletes. Due to the fact that athletes interviewed in this study were strongly motivated to use doping substances and argued that they would continue to use doping substances no matter what the anti-doping sanction might be, the importance

of harm reduction is abundantly clear. Within the current investigation, the use of doping substances was driven towards body image concerns, suggesting doping is not just a sporting problem, but also a societal one. Public health bodies appear best placed to provide information and advice, through harm reduction strategies, to reduce the likelihood of harm. Harm reduction strategies are not restricted by ADP, so they are able to provide information and advice that might somewhat contradict the anti-doping message. ADP must remain independent from harm reduction efforts due to the potential of mixed messages. Moreover, the potential harm to others provides strong reason for publicly funded health bodies to intervene and better protect the health of recreational athletes and wider public.

Due to the fact that the anti-doping movement has taken a hard-line stance toward the use of doping substances in sport, doping has become heavily stigmatised and is considered a deviant and immoral behaviour by the majority of athletes and wider society. The WADA somewhat relies on these negative connotations, to reinforce doping as a highly undesirable behaviour, in the hope that this might aid the effects of the prevention and deterrence of doping. The media has also contributed to distrust, reporting doping cases in an extremely negative light, demonising doping behaviours and fuelling further shame and stigma amongst the general public (Mulrooney et al., 2019). Whilst some might see these perceptions as an essential part of anti-doping deterrence, others acknowledge the detrimental effect that these perceptions have towards health promotion efforts (Evans-Brown et al., 2009). Harmful perceptions of doping have driven doping behaviours underground and away from healthcare professionals, further risking the health of doping substance users. With doping substance use heavily stigmatised, this somewhat reinforces secretive behaviours and athletes risk their health by relying on untrusted sources of information and advice. Accordingly, ADP perhaps inhibits harm reduction efforts and this somewhat conflicts with the WADA Code fundamental rationale, to protect and promote health. For this reason, I argue that public health organisations ought to take the lead role in that dimension of anti-doping that concerns the protection of health.

Previous research highlighted how harm reduction strategies, in the form of NSPs, can reduce harm amongst AAS users, with users engaging in less high-risk drug taking

activities and some users discontinuing AAS use completely. These outcomes are beneficial towards health protection and health promotion and this ought not be overlooked when it comes to doping within recreational sport. Although harm reduction strategies conflict with the message of doping-free sport, if athletes are set on using doping substances no matter what, then harm reduction strategies through public health organisation appear best placed to better protect health. Harm reduction strategies are designed for individuals who are not yet willing to give up a specific problematic behaviour and for that reason, a harm reduction approach appears best placed to protect the health of these individuals.

In its current format, ADP appears to inhibit harm reduction and due the diverse and serious nature of the health concerns associated with doping substances, I find this problematic. Notably, many of the adverse health conditions experienced by recreational athletes and gym users appeared somewhat preventable, if only these individuals had access to the appropriate harm reduction services. Although the aims of ADP and public health bodies somewhat oppose one another, with concerns around mixed messages, I argue that both ADP and public health bodies have a duty of care towards athletes. For this reason, to better protect the health of recreational athletes and the general public, I argue that specialist harm reduction units should be introduced within Wales, to better protect the health of recreational athletes, gym users and the general public. Due to that fact that there is less riding on the outcome of recreational sporting competition when compared to elite sport, I argue that the WADA should look towards ways in which it could potentially accommodate specialist harm reduction units. Without this consideration, recreational athletes will continue to use doping substances and risk their and public health in the process.

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Appendices 1.

Interview Guide

- 1) Tell me a little bit about yourself, what you do for work, how old you are and where you are from?
- 2) How long have you been using gyms/weights? Why did you start lifting weights?
- 3) How many times do you train each week? What do your sessions consist of?
- 4) What are your motivations when you lift weights/go to the gym? How does this you feel?
- 5) Do/have you play any other sports outside of using the gym? What are your reasons for taking part?
- 6) Do you use any nutritional supplements? If so, which ones? How long have you used them? Where do you get them from? Do you consider these sources as reliable?
- 7) Why do you use supplements, and do you think their use is necessary? Where do you get information about supplements? Do you consider whether there could be possible health implications from there use? Do you think their use is widespread within gyms/sport?
- 8) Apart from nutritional supplements, what other things do you use?
- 9) How do you use them (inject/tablets/cycles/multi-use/doses)? How long have you used these products? Where do you get these products from? Are these products easy to get hold of? Are these products safe/Do you trust these sources? Expensive?
- 10) Why do you use these products? Do you believe they are necessary to achieve these goals? Have you ever experienced any pressures to use these products? Do you think the use of IPEDS is widespread in gyms?
- 11) Do your family and friends know about your use of these products? What do they think? How does this make you feel?

- 12) Do you consider your health when using IPEDS and have you ever experienced any health implications whilst using these products? What steps do you take to ensure your health when using these products?
- 13) Have you ever accessed advice, support or education concerning these products? How did it make you feel? Why did/didn't you access advice on these products? In which form did you access advice & was it useful? Needle exchange? How did this make you feel?
- 14) Do you talk to other gym members about using these products? What do you talk about? Why do you think they approach you for advice rather than a medical professional? How do you feel when others approach you for advice?
- 15) Do you think more advice/guidance should be provided to users of the users of these products? If so, what would be most useful? Harm minimisation approaches?
- 16) What would stop you from using IPEDS? Harsher sanctions? What do you think about tougher criminal sanctions for users? Would this deter you from using IPEDS? Why?
- 17) What are your views and thoughts on anti-doping? In your opinion, would you consider the use of these substances as cheating if you played professional sport? Why?
- 18) What do you think about anti-doping agencies extending their focus to lower-level athletes?