

We all stand accused in the fight against ‘doping’ among young South African rugby players

CORA BURNETT

Stellenbosch University, Center of Sport Leadership, SOUTH AFRICA

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Abstract

Doping in sport is a global phenomenon with high levels of prevalence among Rugby Union players. This research is underpinned by a Bioecological and dispositionalist-contextual conception of socialisation to explore the ‘doping behaviours’ of young rugby players in South Africa. Qualitative data emanated from the thematic analysis of case studies between 2011 and 2022 featuring 14 detailed records, and interviews conducted with 14 representatives of coaches, players, medical staff, the South African Institute of Drug-free Sport (SAIDS) and a senior member of the rugby players’ union. Nine themes emerged from the analysis of the two qualitative data sets. These are: (i) a competitive sport environment causing stress and the continuous pressure to perform optimally; (ii) player vulnerable evidenced in their accessibility and disposition for external influences; (iii) supplementation as key to performance, endurance and recovery in addition to medication as needed; (iv) the obsession with size and masculinity; (v) knowledge and exposure to anti-doping education; (vi) the strict liability clause in the World Anti-Doping (WADA) 2021 Code; (vii) surveillance in terms as part of SAIDS’ regulatory and compliancy mandate, in addition to whistleblowing and strategic testing in high risk sports; (viii) personal and sport-related values inherent in the ethos of rugby; and (ix) holism in approach and action. It was apparent that neither the regulatory agency nor medical staff could take sole responsibility to combat a ‘dopogenic environment’. Societal values and individual circumstances translate in different ways of how individuals act and make decisions as life-spheres inter-related in a plethora of ways. There is a dire need for all stakeholders to collaborate and ensure meaningful education in chartering a holistic approach for player development.

Keywords: Anti-doping education, anti-doping agencies, anti-doping rule violations, performance enhancing substances, rugby,

Introduction

The establishment of the World Anti-Doping Agency (WADA) in 1999 created a global system for promoting and protecting clean sport, made significant inroads in the fight against ‘doping in sport’ despite systemic flaws and critique of inhumane practices giving the media free reign to spread the narrative of deviance and ‘cheating’ (Dimeo & Møller, 2018). The prevalence rate of doping in sport differs across sports and countries. A subject-wide systematic review of published scientific papers shows a wide prevalence rate ranging between zero and 73% with most falling under 5% (Gleaves, Petróczi, Folkerts, De Hon, Macedo, Saugy & Cruyff, 2021).

Several studies report the complexity of the phenomenon of doping (Schubert, Eing & Könecke, 2022) that are influenced by various contexts, sport-specific factors, and anti-doping programme effects (Woolf, 2020). These studies report on sports having unique cultures, demands and reward systems. Other factors influencing doping behaviour in sport include the use of supplementation and strategies to meet the demands related to the demands and physicality of a certain sport associated with hyper-masculinity, the focus on performance enhancement, possible ignorance or the lack of anti-doping knowledge and the absence of an integrated approach to combat (intentional and unintentional) anti-doping rule violations (ADRVs) (Cox, McNamee, Petróczi & Bloodworth, 2023; Hardwicke, 2023).

Most prominent strategies of National Anti-doping agencies include testing as deterrent, surveillance (e.g., walkabout), scientific measures (e.g., the blood passport system), anti-doping education and intelligence gathering (including whistleblowing) (Petróczi & Boardley, 2022). Despite these measures, doping in sport is still a major concern particularly among young emerging players and athletes (Hallward & Duncan, 2019; Sagoe, Holden, Rise, Torgersen, Paulsen, Krosshaug,... & Pallesen, 2016). The reliance on anti-doping education and preventative measures being outsourced to National Anti-doping Organisations (NADOs) further undermines the development of a clean sport culture within different sports and sporting contexts (Mudrak, Slepicka, & Slepickova, 2018; Patterson & Backhouse, 2018).

Whitaker and Backhouse (2017) published on the reasoned decisions for anti-doping rule violation (ADRV) in rugby union in the UK since the introduction of the 2009 World Anti-Doping Code. By 2015, 49 rugby union players and one coach in the UK were sanctioned, indicating that lifestyle factors rather than

performance enhancement as reasons for transgressions. Most players serving a period of ineligibility in Rugby Union, are from amateur level competitions that feature different drivers than merely external or financial awards. Findings suggest that players took banned substances for personal reasons, out of ignorance, to enhance recovery from injury, for weight management and to cope with training demands. Several researchers offered similar explanations for ADRVs, namely: imputed culpability (misinformation, trusting the wrong people, circumstances, or personal hardships); performance repentance (seeking empathy for not knowing); and virility (denial) (Henne, 2016; Henning & Dimeo, 2018; Petróczi, 2013).

The current anti-doping education offerings as a key strategy in the fight against doping, focus on providing information on the matters of science, law, procedures and processes for complying to the 2021 World Anti-Doping Code (WADC) – a document of more than 150 pages (Dimeo & Møller, 2018). In support of anti-doping education, little has changed in strategy and mechanisms set out in WADA's 2021 International Standard for Education.¹ Sessions conducted by national bodies, legal or scientific experts do not engage in meaningful education as a 'long term or continuous process and relationship with [the] learner' (Houlihan, 2008, p. 53).

In South Africa, rugby carries persuasive symbolic power to mark the progress of a nation since the Mandela era and propagating reconciliation in the wake of South Africa winning the 1995 World Cup (Grundlingh, 2017). The national team (the Springboks) is a global brand associated with national supremacy amongst the core rugby nations (Wise, 2017). The commercial value of the sport globally and at national levels, carries media appeal for competing nations where national prestige is important for nation-building and pride. The stigma of cheating is condemned, including clamping down on "sophisticated cheating" being "snared by the powerful allure of steroids" (Van der Berg, 2022, p. 115).

Accusations on a steroid culture in South African rugby are rife and exacerbated when prominent national players tested positive for steroids, including a former Springbok captain, Chiliboy Ralepelle who received an eight-year ban in 2020 after the third sanctioning, ending his rugby career (Fleming, 2016). Mweli (2015) reflected on the intersecting phenomenon of racial identity and masculinity with a player like Chiliboy Ralepelle carrying a heavy burden and responsibility as player of colour to lead at the highest level in a previously 'white-man's game' (Höglund & Sundberg, 2008). The lesson is clear: "If you don't shape up, you're gone. South Africa's vibrant conveyor belt of talent ensures that there is a steady stream of fresh new blood." (Van der Berg, 2022, p. 132). Expectations remain high and players are often caught in a moral maze in their strife to reach the higher echelons in their sport (Rowbottom, 2013).

South African rugby players are known for the aggressive and robust type of game with selectors and coaches preferring tall, muscled, fast and strong players, with the understanding that many young players have to 'bulk up' (Harmse & Noordbhai, 2022). Van der Berg (2022) stated that "rugby obsession with size has doubtless helped fuel the chemical craze in schoolboy (and senior) rugby" (p. 153). The pressure to escape poverty by signing a lucrative contract is even higher for boys from impoverished environments, such as in the case of Thabiso Mendu, a young promising player who died from cardiopulmonary arrest after injecting 'bad steroids' having dabbled in 'gym culture' where substance abuse is also rife and caused the death of young body builders (Dickerman, Schaller, Prather & McConathy, 1995; Didymus & Backhouse, 2020; Mashasha, 2021). The 'obsession' with size is also a significant influence globally with clear causality to multiple transgressions associated with 'doping behaviour' (Cox et al., 2023; Till, Jones, McKenna, Whitaker & Blackhouse, 2016). These contributing factors all inter-relate to create a 'dopogenic culture' that necessitates a complexity of multiple stakeholders and influenced interacting within and across different spheres at different levels over time (Classen-Smithers, 2022).

The dispositionalist-contextual conception of socialisation articulates with the complexities of an individual's sociological biography "that allows us to grasp the successive of combined effect of the different socialization frameworks frequented by individuals" as they absorb or reject influences that exist in successive and parallel experiences (Lahire, 2019, p. 379). These experiences emanate from the household with parents acting as the 'psychological agency of society' that dominates in the formative years but are gradually replaced, substituted for, or transformed by other influences to inform new and emerging identities through socialization within a sport club or team that necessitate other existential self-constructions around being an athlete worthy of being an insider (Lahire, 2019). In the latter instance, embracing the rugby culture around masculinity, the persuasive competitive ethos and focus on winning, may cause individuals to cross the threshold into extreme measures.

Within the space of 'hegemonic masculinity' as embodiment of privilege and power, 'winning at all costs', laden with pressure from significant others, personal choices may be swayed and influenced to accept different levels of deviance to achieve success (Connell & Messerschmidt, 2005). Messerschmidt (2012) discusses the academic appropriation of hegemonic masculinity in the shaping of a current discourse of performance in high school rugby that also constitutes a normative stance in hypercompetitive sport settings.

¹ WADA International Standard for Education (ISE) 2021 [file:///Users/amanda/Downloads/International-Standard-Education-ISE-2021.pdf](https://www.wada-ama.org/en/resources/education/education-ise-2021)

Classen-Smithers (2022) concurs by indicating that 95% of all South African anti-doping rule violations for the U/19 rugby category between 2014 and 2020, were due to the abuse of Anabolic Steroids that supports the ideology of body politics.

A conceptual framework

Despite some limitations for analysis, Bronfenbrenner's bioecological model proposes the different systems emanating from the individual to the societal level with a time dimension overlaid additional to the multiple levels and systems (Leventhal & Brooks-Gunn, 2020). It also incorporates theoretical frameworks posed by Albert Bandura (social learning theory) and Lev Vyofsky (socio-cultural theory) in which the environment is key to mechanisms of development and social learning. In the 1990s, he expanded on proximal processes of development of an individual by recognising the complexity of reciprocal interactions positioned in the immediate environment (micro-level), that in turn react to different *micro-systems* (e.g., interactions of parents with teachers or coaches) captured in a *meso-system* for bi-directional communication and influence (Bronfenbrenner & Ceci, 1994; Bronfenbrenner, 2000).

The *exosystem* incorporates formal and informal social structures of influence exerting indirect influence on the micro-system. The *macro-system* comprises of cultural elements affecting individual development, such as socio-economic status or ethnicity. The fifth system of this model is the *chronosystem* that consists of broader environmental changes associated with major life transitions that occur across the lifespan. This could refer to entering the professional realm of sport, where the ecosystem is configured along recognisable patterns and processes underpinned by norms and values – including that of the clean athlete, fair competition and upholding the integrity of a sport (e.g., rugby), school, club or country.

Positioning education as a process within the ecological framework, encompasses complex multi-directional articulations of influence where significant others engaging in reciprocal agency within and across different social spheres that inform identity formation and decision-making. There is a gap in the understanding the roles and responsibilities of different stakeholders and influences that should be considered in explaining “clean” and “doping” triggers, intentions, behaviours and circumstances. Therefore, research is needed to untangle and deconstruct the multi-faceted nuances of non-compliance to the WADA Anti-Doping Code in South Africa, where rugby relies on a school- and university-based feeder system for professional teams. The current research aims to contribute to profiling and understanding young rugby players regarding ADRCs and their quest for success.

Material and methods

The research design allows for content analysis of public sources pertaining to rugby union players, who committed an ADRC between 2011 and 2022. After reading through all the 68 reported cases, only cases of minors and young rugby players were selected. Only 14 cases could be analysed further, as four cases listed as ‘minors’ and 24 cases had no details, only stating: *A written decision was issued in terms of Article 8.3 of the SAIDS Anti-Doping Rules 2021 because the athlete did not exercise his/her right to have their case heard before an Independent Doping Hearing Panel (IDHP).*

Further analysis included that of the player's age, level of competition, violation, period of ineligibility and explanation how/why the ADRV happened (Erickson, Backhouse & Carless, 2016). As the cases were pitched as a legal defense, using the Google platform, more information could be gathered for some cases.

After receiving ethical clearance from a public South African university, interviews were conducted with a purposive sample of key stakeholder representatives, namely: (i) two senior staff from SAIDS (N=2); (ii) two university rugby coaches and two sport scientists (N=4); (iii) a senior manager of the rugby players union (N=1); (iv) four rugby players and physiotherapist of a professional rugby club who had extensive experience with junior and university rugby players (N=5).

The six steps proposed by Creswell (2013) and process from Braun and Clarke (2006) were followed for qualitative data analysis (interviews and cases): (i) reading through all transcripts to get familiar with the data; (ii) identify semantic units for initial coding; (iii) integrate sub-codes (axial) for initial theme-generation; (iv) review and affirm themes through member-checking; (v) define and finalise themes; and (vi) writing up within context of the study and integrate with deductive thematic areas emanating from literature.

Results

Four minors were sanctioned for anti-doping rule violations, one in 2016 and three in 2022 – all for anabolic steroids with sanctions ranging from a two to four-years ban. Twenty-three young (U/19 and U/21) players did not contest their sanctioning, ranging between 18 and four years. Only in one case, a player received a three-month ban for using of Cannabinoids, compared to the vast majority who were found guilty of using Anabolic Steroids. Table 1 includes the cases captured between 2011 and 2022 with brief reference to the players' defense and reasons provided or non-guilty pleas offered.

Table 1. ADRVs of selected cases from young Rugby Union players in South Africa: 2011 to 2022

Name of player (Case number: N=14)	Date of violation & context/explanation provided by player/legal council
Harald van Staden (SAIDS/2011/35 & A) (1)	8/10/2011 – u/21 provincial player. He had to work to pay for studies and could not get leave. No SARU representative attended the hearing and appeal failed.
Jan Hendrik Truter (SAIDS/2011/32) (2)	12/07/2011 – 1 st school team – injury and wanted to gain body size. Dianabol given by friend – coaches accepted players know about substances. Read in newspaper about sanctioning, lost contract and sport bursary to a university, and stopped career.
Juandre du Toit (SAIDS/2012/01 & A) (3)	11/07/2012 – Coca-Cola Craven week (out-of-competition test). Mother said they could not afford to attend hearing, appeal brief, accept verdict change illegibility period.
Johan Pieterse (SAIDS/2012/05) (SAIDS/2012/05/A) (4)	6/02/2012 – Tswane University of Technology Rugby Club. Earning R500 match fee. Used Jack 3D bought from DisChem. Internet search - ignored ‘warning’ to “improve energy whilst playing”. WADA appealed SAIDS sanction.
Mihlali Qoma (SAIDS/2012/50) (5)	15/09/2012 – Border u/19 team. Little play time, to build muscle, poor rural background, bought pills from friends. No anti-doping education.
Edward Schmidt (SAIDS/2012/45) (6)	08/09/2012 – 18-year-old lost contract with Cheetahs. User of Cannabis & bought ‘Winstrol’ (pills) from fellow learners. Anti-doping education at school, but limited education on risks.
Renier Erasmus (SAIDS/2012/43) (7)	01/09/2012 – u/21 Eastern Province captain. Sick and got energy drink from friend. No formal or group anti-doping education. 1 st office and he spoke to 3 schools to create awareness.
Earl Snyman (SAIDS/2012/19) (8)	27/02/2012 – 23-year-old provincial player. Used Jack 3D purchased over the counter. Played for University of the Free State and had a bursary.
Gideon Muller (SAIDS/2012/16) (9)	19/01/2012 – u/20 Lions player, motor car salesman. Did not attend anti-doping session at Lions. No education – Baby Boks week or any SARU form. Overbearing father, injury – suspended from Lions and Bok squad. Initial sanction reduced what could be 4 years.
Lukhanyo Nomzanga (SAIDS/2015/12) (10)	27/05/2015 – U/21 player. Bought “Hellfire” as pre-workout supplement – cheaper than healthy food. No doping education – poor awareness from administrators.
Stean Pienaar (11) (SAIDS/2017/01/A02)	5/12/2016 – 19-year-old high school player. He did not want to consult the female team doctor. He and father conducted internet search, but had incorrect spelling. Negligence.
Inus Vermeulen (SAIDS/2017/06) (12)	10/11/2016 – u/19 Leopards Rugby Union. Took medication. Attended doping education classes, but could not follow as it was in English.
Jandre Maree (SAIDS/2017/47) (13)	15/09/2017 – u/20 Mpumalanga Pumas. Player injured and received pills from a person in private gym. Did not contact team or personal doctor.
Willem Parker (SAIDS/2017/48) (14)	30/09/2017 – Young amateur player from QBR Rugby club. Used 6 different substances. Never received any anti-drug education from club or school.

Keys # and * (# Use or attempted use of a prohibited substance and * Presence of a Prohibited Substance or its Metabolites or Markers)

Nine themes emerged from the analysis of the two qualitative data sets (thematic document analysis of cases and interviews). These are: (i) a competitive sport environment; (ii) player vulnerability; (iii) nutrition and supplementation; (iv) the obsession with size and masculinity; (v) knowledge and anti-doping education; (vi) strict liability and consequences of ADRV for players; (vii) surveillance; (viii) values; and (ix) holism in approach and action.

The first theme speaks to the *pressure* from a highly competitive environment and the promise of a lucrative career that begins at school. Scouts from professional rugby union teams and universities attend rugby week derbies and competitions (including Craven Week). A player interviewed, refers to the high-performance systems implemented by schools, whereas a coach referred to the pressure on boys to at least make it to the first team:

The problem obviously comes when there's a player who potentially could play the first team, but he's not quite in the mix. And he then decides to go and get a personal trainer on his own, not within the team system.

The expectations are different for parents who seek opportunities for their children to get bursaries and longer-term career outcomes. For coaches and schools employing professional (and former elite players), “kids are commodities...if you have a winning rugby team, your enrolment is high, and you can get away with charging whatever school fees you want” (SAIDS representative).

The second theme relates to the *vulnerability of players* who are easily accessible and especially younger players are persuaded to use substances or medication to stay within this fast lane or to ensure that they will be selected for teams that may lead to bursaries and/or professional contracts. Many young players take risks according to ‘a live for the moment mentality’.

I just want to look like a bodybuilder and play great rugby. And I'm not thinking of the consequences and the life after. (Sport Scientist)

You're bulletproof, and you think maybe I can get away with something. You don't have the life experience to know. Listen, you really can't get away and you're risking way too much. (Representative from the players' union)

Players need to be protected and educated according to the representative from the rugby players' union, stating: "To change that thinking when he's 20 years old, he's coming into this world of lights, camera, action, girls...". In cases (1) and (2), the players said they were desperate to escape poverty and wanted a better life for themselves and their families (see Case 8). However, the rugby fraternity is unforgiving, and many see it as "life lessons to be learnt."

The third theme refers to the fact that young players under pressure are highly susceptible to outside influences, particularly when they take *supplements and/or medication*. A physiotherapist for a professional team said: "The problem obviously comes when that's the case of a player literally didn't know that, that pill that he took for his flu, is actually causing an issue."

Not all realise that they must consult an informed medical practitioner to get a Therapeutic Use Exemption (TUE). Cases (2) and (7) took medication and an energy drink when they felt sick, and Case (11) did not want to consult a female team doctor and said he got the spelling wrong of the substance when checking on the internet if it was safe to use. Some players seem to have a "pre-disposition" for using supplements and "base their performance in the gym, before they base their performance in the field" (Coach). University players may also not have access to enough quality food when "they are staying in the residences", whilst others are lured by "sport [being] advertised to be big and strong and fast". A player said that they were given "legal supplements" during the Varsity Cup (televised competition between top universities) and that was a relief as "nobody was worried in terms of being tested positive for doping".

The fourth theme deals with the politics of the body or the ideal *body image*. In South African rugby, "we are crazy about the biggest athlete – the bigger the better" and young players are impressed by the masculinity of rugby stars who look like "super models" as they market products like USN – "now I want to come and tell you to eat your broccoli and spinach..." (Coach). A representative from SAIDS observed that "bodybuilding vocabulary started to integrate into sport" and schoolboys follow excessive gym regimes where they are exposed to supplementation to boost their performances (Case 2).

The fifth theme relates to a lack (or absence) of *anti-doping education* that players did not receive or could not follow as they found the medical terms too complicated and as sessions are presented in English (Case 12). Coaches and sport scientists refer players to the team doctor for advice, stating that they are "very reluctant...we would never transfer the information to the player in terms of what you should and shouldn't do". They mostly refer to scare tactics: "what you need to do to get to that 20-year-old and say, you will never lift the Currie Cup, or a World Cup, or Pro16, you will never lift one of those trophies, if you take this – know that." Several interviewees said that education should be broader and start at primary school with content offered from the Bok Smart safety programme. Information should come from educators and include parents who should also be educated as there is too much misinformation from unreliable sources as seen in Cases (2), (3) and (5). The pitch and packaging of current anti-doping educational offerings by SAIDS seemed to be inadequate to reach and inform young rugby players not yet in the professional fold.

The sixth theme refers to the notion of *strict liability* where players sanctioned, find themselves alone and isolated. Players are bearing the brunt – "the moment they receive a positive test...and then you must prove that you're not guilty". Professional support (including legal representation) will only be available if "there is merit in the case". The players' union representative said: "... you basically from the moment you test positive, you're done, you know, now you're in this big black hole". A sanctioned player has little choice but to accept the verdict and punishment that includes the immediate suspension, losing a contract and end a career even before it took off (see Case 2). They also must live with the stigma and public shame when the story appears on social and other media platforms.

The seventh theme deals with the *processes* as SAIDS in partnership with the South African Rugby Union (SARU) and affiliated clubs keep tight measures of compliance to the WADA Code through *surveillance* in terms of testing at official competitions, implement the biological passport, anti-doping education and whistleblowing. The challenge is that in schoolboy rugby from Under-13 to Under-18, many competitions are not under the auspices of SARU, causing "a lot of grey areas" for SAIDS (2012). The latter organisation then cannot act on their mandate to: *promote participation in sport free from the use of prohibited substances or methods intended to artificially enhance performance, thereby rendering impermissible doping practices, which are contrary to the principles of fair play and medical ethics, in the interest of the health and well-being of sportspersons; and to provide matters connected therewith.*

SAIDS claims independence as regulatory body, following a "risk plan based on the physiological parameters of a sport...the sport of rugby ticks a lot of boxes". Top teams are tested regularly – a system that resulted in the sanctioning (and ending) the career of the first black Springbok Captain on testing positive for anabolic androgenic steroids (AAS). However, in testing comes at a cost of R5,300 (270 USD) per test and in a prominent case, the cost can escalate up to R500,000 (25,500 USD) for up to three years. In view of the affordability and availability of resources, SAIDS relies on strategic information, especially whistleblowing. Such intelligence mostly comes from jealous parents and if the whistle blower has confidence in the system.

The eight theme relates to *fair play*, personal *values* and the *ethos of sport*. A player and coach said that value-based education starts at the household and grassroots level that “filters through to your life”, and that “players have to work hard” and not take shortcuts (which is unfair). A physiotherapist refers to his experience at the Junior Rugby World Cup where the emphasis was on “keep rugby clean” and all players wore a T-shirt with World Rugby’s logo and slogan of commitment on it. Unfortunately, societal values and a culture of tolerance for “breaking the law” has become part of a broader culture and escalated during the blooming of black-market entrepreneurs during the Covid-19 pandemic. A spike of steroid rather than stimulant usage is expected.

The last theme refers to an integrated system at the local and national levels where the *complexity* of anti-doping education and behaviour should be a collaborative effort of all stakeholders and individuals engaging with athletes (including athletes), albeit in different ways according to designated roles and responsibilities. Many young players find themselves in “vacuum” where multiple influences act differently on everyone (see Case 9, 10 and 14).

Discussion

The different systems within the bioecological model developed by Bronfenbrenner (2000). Bronfenbrenner and Ceci, 1994 showed the complexity of multiple inter-related and inter-locking psychological, socio-cultural, and political dimensions that impact on human development like that of players being socialised into and through sport. At the micro-level, the centrality of individual’s positionality and identity formation are inherently part of the socialization process where significant others, such as parents, coaches and peers co-create and interpret micro- and meso-level interactions (Lahire, 2019; Leventhal & Brooks-Gunn, 2020). In the context of a competitive sport like rugby, players are socialised into high performance associated with stressful encounters and the constant demand for achievement and success.

A key finding of player vulnerability and moral decision-making often overriding an earlier value-system, contribute to risk-taking with supplementation that may ensure maintaining an optimal level of physicality or speed up recovery after an injury or sickness to ensure returning to the field in top form. It becomes a lifestyle that may cause players to use all means at their disposal to keep the edge, including taking supplements that may present a risk for an ADRV. Whitaker and Backhouse (2017) concur that UK amateur rugby union players’ anti-doping transgressions correspond with this acquired demanding and stressful lifestyle.

The obsession with size and body image of hegemonic masculinity symbolises the norm for physical prowess and body ideal for players. A team’s physical style of play and embodied hypermasculinity set high demands on training and exercise regimes. The ‘gym culture’ with the focus on body sculpturing and media portrayals of ‘super model bodies’ endorsing supplements created a demand for supplements and for Anabolic Steroids (Harmse & Noordbhai, 2022). Internet sources and black-market entrepreneurs thrive as players fell victim to such products. Young players often demonstrate a live-for-the moment mentality, are prone to taking risks and may be ignorant or misinformed about products for which they would be held liable in case of positive test outcome. Macro-system realities, such as being from an impoverished background, may act as aggravating factors for taking risks.

Personal values, the integrity of sport and emphasis on fair play and ‘clean athletes’ inter-connect in different ways but do not remove the ‘moral maze’ for athletes when they have to make decisions that on the one hand can transform their lives, but on the other hand also destroy their futures (Dinymus & Backhouse, 2020; Rowbottom, 2013).

The exosystem influences refer to the structures of influence and control. An anti-doping regulatory body (i.e., SAIDS), institutional settings (i.e., rugby clubs and professional rugby entities) provide the knowledge (anti-doping education) and other mechanisms of surveillance (e.g., testing regimes, athlete blood passport and legal aspects) and whistle blowing as key strategies to eradicate AVRDS. Testing as deterrent, public shame and loss of career-advancement are tools used to protect the health of players, ensure fair competition, and promote a positive sport ethos.

The WADA clause of ‘strict liability’ articulates to a personal value system, moral and informed decision-making by an individual, who must be accountable for his/her own actions. Any failure (a false positive) or fault line in the anti-doping system has multi-level ramifications that impact negatively on the player, his/her club, the sport fraternity and in some cases, the country (Dimeo & Møller, 2018). The challenge facing emerging young rugby players is that they may find themselves isolated and exposed without having earned the membership of a protective (rugby) environment (Van der Berg, 2022).

At society level (chronosystem) influences filter and reflect in sport in different ways. Patriarchal values support hegemonic masculinity, a legal team and system may condone or appeal in some cases (of merit), whilst it exposes the different stakeholders in scoping their mandates, as not to be implicated when a player transgresses. The complexity and multi-faceted realities of ‘bad’ or ‘good’ doping and AVRDS should be tackled collectively. As much as one system exposes the under-belly of rugby, other systems should protect their players and sport. Young rugby players deserve that protection as a human right as much as they should be able to rely on responsible and responsive people and systems to develop as players, individuals and the role models of a next generation.

Conclusions

Regulatory bodies emphasise the complexity of doping and show the diversity of circumstances and socio-cultural conditions as influential factors, whilst proposing appropriate and timely anti-doping education as strategy. However, the player stands alone mostly because of WADA's strict liability rule of the Code without the responsibility of the Anti-Doping agency to demonstrate intent, negligence, and/or ignorance. It falls outside the ambit of a regulator, medical or legal experts or pharmacologists, who continue to address the symptoms rather than the root causes of athletes' behaviour, including supplement use as a possible 'gateway' to doping (Dimeo & Møller, 2018). Each stakeholder must play its role and collaborate to ensure that players are socialised into a 'clean sport' value-system and environment, considering that many fluid factors may influence players in their decision-making. For the rugby fraternity and sport clubs, sourcing out responsibilities of anti-doping education to medical experts or SAIDS, is not a solution as they provide information and do not engage in the educational process. All stakeholders must work together or stand accused. For instance, SAIDS can go after the supply chain, but parents and coaches need to assist in taking care of formative and responsive education, whilst the legal, medical sector and media also have their unique roles to play.

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