

Citation:

Hall, J and Patterson, L and Backhouse, S (2025) Banned for doping: Using composite vignettes to portray rugby players' experiences of anti-doping rule violations. Performance Enhancement and Health, 13 (2). pp. 1-8. ISSN 2211-2669 DOI: https://doi.org/10.1016/j.peh.2025.100334

Link to Leeds Beckett Repository record: https://eprints.leedsbeckett.ac.uk/id/eprint/11846/

Document Version: Article (Published Version)

Creative Commons: Attribution 4.0

© 2025 The Author(s)

The aim of the Leeds Beckett Repository is to provide open access to our research, as required by funder policies and permitted by publishers and copyright law.

The Leeds Beckett repository holds a wide range of publications, each of which has been checked for copyright and the relevant embargo period has been applied by the Research Services team.

We operate on a standard take-down policy. If you are the author or publisher of an output and you would like it removed from the repository, please contact us and we will investigate on a case-by-case basis.

Each thesis in the repository has been cleared where necessary by the author for third party copyright. If you would like a thesis to be removed from the repository or believe there is an issue with copyright, please contact us on openaccess@leedsbeckett.ac.uk and we will investigate on a case-by-case basis.

ELSEVIER

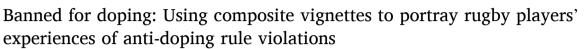
Contents lists available at ScienceDirect

Performance Enhancement & Health

journal homepage: www.elsevier.com/locate/peh

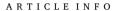


Research Paper



Justin D. Hall *0, Laurie B. Patterson, Susan H. Backhouse

Carnegie School of Sport, Leeds Beckett University, UK



Keywords:
Doping violations
Substance abuse
Rugby
Social identity theory
Creative non-fiction



Objective: Understanding the lived experiences of athletes who have been sanctioned for violating anti-doping rules presents the opportunity to listen and learn. Yet, the academic field seldom draws on the voices of those affected when considering doping in sport. Our aim was to illuminate important aspects of sanctioned athletes' experiences and highlight opportunities for prevention and rehabilitation. Design: A semi-structured interview research design was used, and data informed the development of composite vignettes, a form of creative nonfiction. Method: Semi-structured interviews were conducted with two elite rugby players sanctioned for violating the anti-doping rules within rugby league (n=1) and rugby union (n=1). Three composite vignettes were created illuminating player experiences before, during and after the violations. Findings: The vignettes highlight in participants' own words the multiple impacts of sport demands and drug use: (1) Leading up to the violation: 'You're just treading water, you're surviving' (2) 'There's just this massive amount of social pressure in rugby, not just on the game, but on who you're supposed to be' (3) 'It was like being hit by a train'. The ADRV aftermath. Conclusions: The role of social identity in the transitions experienced by a rugby player following a critical incident (e.g., serious injury) was a key influencing factor for doping. Alongside addressing the demands of the sport, the need for early intervention and evidence-based support for players experiencing critical incidents (e.g., injury) and transitions was evident to prevent doping violations.

1. Introduction

Doping is an ever-present and ever-changing issue in sport (Mottram, 2022). As a complex and dynamic issue (McLean et al., 2023), national governing bodies, National Anti-Doping Organisations, and the World Anti-Doping Agency (WADA) continue to update their policies and practices in response to the shifting behaviour of athletes and support staff (Read et al., 2019). Although the World Anti-Doping Code (WADC) includes eleven Anti-Doping Rule Violations (ADRVs), presence of a substance in a doping control sample is the most recorded violation leading to sanction (WADA, 2021). It is therefore unsurprising that much research, specifically within the field of psychology, has been shaped by a narrow focus on examining the determinants of using prohibited substances and methods (e.g., Barkoukis et al., 2013; La Torre et al., 2004), or more specifically, an athlete's intention to use a prohibited substance or method (e.g., Ntoumanis et al., 2024). Typically, cross-sectional surveys have been administered (e.g., Aguilar-Navarro et al., 2020; Christiansen et al., 2023; Lauritzen & Holden, 2022; Ulrich et al., 2018) to understand doping behaviour. Although this research has served to develop our understanding of the proxies of doping behaviour, we still have a limited understanding of an individual's actual experience of before, during, and after they are sanctioned for an anti-doping rule violation.

The limited research that does focus on athletes who have 'doped' provides valuable insights into the factors that contributed to their rule violation. A range of individual, situational and environmental factors have been identified as contributing to doping behaviour (Engelberg et al., 2015; Erickson, 2019; Kirby et al., 2011). For example, Erickson (2019) found that a male (American Football) student athlete's prohibited substance use was brought about by a complex interaction of known risk factors, centred around injury, and exacerbated by a strong athletic identity and powerful social pressure. With regards to the latter, the athlete had peers who were using prohibited substances (without being caught/testing positive), encouraging him to take them, and supplying them to him. Other research with athletes sanctioned for doping has also signalled that implicit pressure to use prohibited substances comes from *doping subcultures*, where doping is accepted and normalised amongst the peer group (Engelberg et al., 2015; Kirby et al.,

^{*} Corresponding author: Carnegie School of Sport, Leeds Beckett University, Headingley Campus, Fairfax Hall 227, Leeds LS6 3QT. E-mail addresses: Justin.hall@leedsbeckett.ac.uk (J.D. Hall), L.Patterson@leedsbeckett.ac.uk (L.B. Patterson), S.Backhouse@leedsbeckett.ac.uk (S.H. Backhouse).

2011)).

Building on these insights, this study considers the interactive effects of individual, social and environmental factors leading to doping through the lens of Social Identity Theory (Tajfel, 1979). Social Identity Theory, as described by Haslam et al. (2020), suggests that a person's behaviour and self-esteem is affected by their group memberships. Psychology research in the anti-doping field has typically been framed through The Theory of Reasoned Action and Planned Behaviour (latterly via extended social cognitive models, e.g., Chan et al., 2015; Ntoumanis et al., 2024). This is evidenced in Backhouse and colleagues' narrative synthesis (2016) and large proportion of WADA Social Science Research Grants focusing on attitudes and knowledge as influencing factors of doping (WADA, 2025) (e.g., Allen et al., 2015; Barkoukis et al., 2019; Chan et al., 2018). Such research has considered beliefs about whether most people approve or disapprove of doping (i.e., subjective norms). However, Social Identity Theory extends beyond the idea that we are influenced by norms to suggest that group membership can be internalised into our sense of self ('who we are') (Haslam, Fransen & Boen, 2020, p. 17). Social Identity Theory has the potential to be useful in understanding doping behaviour as contemporary research in sport shows a clear link between social identity and anti-social behaviour (e. g., Bruner et al., 2014), as well as mental health (e.g., Haslam et al., 2022; 2021) and collective emotion (e.g., Bruder et al., 2014).

When utilising SIT, creating a clear boundary around the social context - or 'in-group' and 'out-group' - is key. In the current study, the focus is on the sport of rugby in the United Kingdom (UK). Rugby league and union (referred to collectively as 'rugby' in the remainder of the paper) were chosen as a focus because evidence suggests they have the second highest frequency of adverse analytical findings globally (presence of a prohibited substance or method in a doping control sample) (Aguilar-Navarro et al., 2020) and highest numbers of ADRVs in the UK (UKAD, 2023). Additionally, research in fields beyond anti-doping has highlighted the potentially damaging influence of the 'rugby culture', including in relation to mental ill-health (e.g., Oftadeh-Moghadam & Gorczynski, 2022) and normalisation of playing through injuries and illness (e.g., Chesson et al., 2023). Within anti-doping, the limited research that has been undertaken within rugby has signalled a 'culture of silence' that dissuades individuals from challenging the damaging cultural norms of rugby Whitaker et al., (2014). Taken together, these previous findings suggest there is a need to learn more about how doping behaviour occurs within rugby contexts.

To the best of our knowledge, only two studies have examined sanctioned rugby players. Whitaker and Backhouse (2017) identified recovery from injury, weight management (including increasing size) and reasons not related to sport performance (e.g., cocaine while socialising) as key influencing factors for doping in rugby from case hearings. Whilst this analysis is helpful, only limited information is provided in anti-doping case hearings, and there may be inaccuracy in the data as some athletes may provide false mitigation for their sanction. Cox et al. (2022) noted a perceived lack of credibility around doping control which resulted in a cultural 'laissez faire' attitude to doping amongst Welsh recreational rugby players. They described doping as an accepted "part of the game" (not considered cheating) that was talked about, enacted, and facilitated (via supply of substances) openly within their peer group. These studies corroborate evidence from dopers outside of rugby Engelberg et al. (2015); Erickson (2019); Kirby et al. (2011) in terms of the importance of social influences. Despite this, they provide only limited insights into doping behaviour that does not capture athlete experiences before, during and after a sanction. Alternative methodological approaches are therefore needed to enable a holistic understanding of how ADRVs are experienced.

Creative non-fiction (CNF) is a relatively novel type of creative analytical practice, based on empirical data that has been systematically collected and analysed (Cavallerio, 2022; Smith et al., 2015). Whilst academic writing has been regarded as inaccessible to non-academics (Phillipson, 2018), CNF provides an avenue to create meaningful and

evocative research findings (Orr et al., 2021) through an accessible pedagogical resource that can assist those developing anti-doping policy and practice. Despite its value, few studies have investigated the act of doping using CNF. Those that have, focused on athletes' whistleblowing experiences (Erickson et al., 2019), adolescent athletes' portraits of risk factors for doping initiation (Duncan et al., 2018), and a student-athlete's perspective of their experiences in the lead up to a doping violation (Erickson, 2019). Erickson (2019) noted that her research exposed novel risk factors not previously considered in anti-doping research, such as an individual's family life. Furthermore, through the story, Erickson was able to illustrate the complexity of this one risk factor and how various components of it (e.g., mother's expectations, older sibling's 'failures', and a younger sibling relying on the athlete) created cumulative pressure (and vulnerability to doping) over time. Findings from CNF studies provide contextual data not found in the dominant cross-sectional survey approach to doping research, allowing us to better understand emotion and vulnerability factors related to doping behaviour.

This study aimed to determine how athletes experience ADRVs before, during, and after the incident(s) of prohibited substance use. Specifically, using conversational interviews (Mittereder et al., 2018), we investigated players' thoughts, feelings, and behaviours both before, during and after their ADRV was established. The purpose of this research was to better understand substance use and abuse in rugby, in a bid to help safeguard the health and wellbeing of players. The study offers important implications for future education, policy and intervention for national governing bodies and anti-doping organisations alike. Bearing in mind global imperatives and specifically WADA's International Standard for Education (2021), this research directly responds to the need to better support athletes returning from a sanction through evidence-based and theory-informed education programmes. This research goes some way to building this much needed evidence base.

2. Methodology

2.1. Philosophical underpinnings

This study was underpinned by ontological relativism (i.e. knowledge is relative to differences in perception and is mind-dependent) and epistemological constructivism (i.e. knowledge is constructed) to provide rich qualitative understandings of individuals' experiences of violating the anti-doping rules of sport. As such, the findings were coconstructed through the real-life stories of the participants and the interpretation of the researcher (Blodgett et al., 2017; Crotty, 1998). Relativism allows us to understand the subjective experiences of the participants, without the assumption of shared human nature and focus on gaining 'Truths' (Denzin & Lincoln, 2005). In the context of this research, a relativist ontology portrays the subjective experiences of the participants in relation to their doping violation. A constructivist epistemology was adopted as it recognises that the researchers cannot be separated from the research process and are instead a key ingredient in the data and its interpretation (Lincoln & Guba, 1985). This is particularly pertinent for the data collection and story creation in this paper as the first author moved from a position of story analyst to that of a storyteller using creative analytical practice (and drawing upon their own experience of playing and coaching rugby). This co-construction was undertaken within the interpretivist paradigm, in which the understanding, extensive experience within the rugby environment, and the worldview of the first author, were key ingredients in the generation of findings (Denzin & Lincoln, 2011). In particular, while there was a semi-standardised approach to the interview process (i.e., several overarching questions were used), the interviews were driven by 'moment-to-moment' interactions between the participants and the researcher (Holloway & Biley, 2011; Waddell, 2002).

The first author's unique 'insider' enabled a common ground on

which to interact with the participants, and contributed to a rapport with the participants. (Dwyer & Buckle, 2009). However, despite this, an unwillingness to speak about substance use within rugby (a 'culture of silence') reduced the number of participants from five originally, to two. The motivation for this study arose from witnessing and experiencing many of the struggles associated with (prohibited) substance use in rugby, including a lack of support for serious injury and personal issues, such as players expected to play through injuries and players not feeling comfortable talking about their personal issues (e.g., financial and relationship struggles). Undertaking research which provides much-needed insight into ways to address these issues and better support players was very important to the research team.

2.2. Participants & recruitment

Recruitment of athletes who have committed an ADRV is a complex and difficult process due to the 'taboo' nature of the topic and the unwillingness of people to come forward (Engelberg et al., 2015; Kirby et al., 2011). Once ethical approval had been granted by a Leeds Beckett University Local Research Ethics Coordinator, potential participants were identified through purposeful sampling. The participant pool was limited to publicly sanctioned rugby players in the UK, most of whom are inaccessible via social media. However, we did make direct contact with five sanctioned players through national governing bodies, personal contacts, and social media. The two sanctioned athletes provided informed consent to participate in the face-to-face interviews. The participants were current (n = 1) or former (n = 1) professional rugby league (n = 1) or union (n = 1) players who had been banned for committing an ADRV relating to the presence of a prohibited substance in a doping control sample. To protect player confidentiality and anonymity in this study, no further information about the participants can be shared as it may lead to deductive disclosure, whereby the participants can be identified.

2.3. Interviews

Face-to-face conversational interviews were conducted with both participants. This was to ensure that the conversations were participantled, and storytelling was invited rather than suppressed (Chase, 1995). The interview guide was designed to elicit this storytelling, where the researcher spoke as little as possible creating space for the participants to elaborate as much as they felt comfortable doing. Main questions included: 'Could you please tell me your story of how you came to take the substance(s) that caused the doping violation?' and 'Could you please tell me your story of the events that followed you testing positive for the substance(s)?'. Prompts were included in the interview guide but were only used if the participant deviated completely from the topic of conversation. With the permission of the participants, the interviews were audio recorded and transcribed verbatim. Interview one lasted 153 min, and interview two lasted 76 min, resulting in 68 pages of double-spaced transcript, amounting to 24,867 words, that provided the data for the composite vignettes that follow.

2.4. Data analysis and story creation

Creative non-fiction (CNF) is a technique for analysing and writing narratives grounded in real-life experiences (Smith, McGannon & Williams, 2015). CNF was chosen as the method of data analysis and representation as it presents results in a way that is accessible to as many audiences as possible to increase the breadth of the impact of the findings (Orr et al., 2021). Further, it was deemed to be the only suitable way of portraying the complexity of the participants' lived experiences, whilst protecting their anonymity. Information that could identify either of the players (e.g., injuries) has been changed in order to protect the identity of the players. The analysis process was guided by Gutkind's (1996) 5Rs of creative non-fiction (Real life, Reflection, Research,

Reading, and (w)Riting). It began with familiarisation with the interview transcripts - reading through them initially, then identifying and highlighting extracts of interest that were relevant to the purpose of the research, to shed light on the players' experiences leading up to, and after an ADRV. The highlighted extracts were copied into a Microsoft Excel spreadsheet, where they were contextualised and any additional notes (e.g., theory application) were added. The extracts were then coded and themed (grouped into different topics) before narrating. During the story interpretation and construction process, further reading of CNF literature (e.g., Feddersen, 2021; Kendellen & Camire, 2021; Lewis et al., 2020) was undertaken by the lead researcher to offer a richer and more textured story. Each story was a composite of both participants' experiences and was based on a combination of the raw content of the interviews and interpretation by the research team, who served as critical friends. Two trusted individuals known to the lead researcher, embedded in the rugby environment were also used as critical friends to ensure that the vignettes were accurate depictions of elite rugby. Rather than a semantic description of what was said, the latent feelings, perspectives, and experiences of the participants towards each situation were interpreted and presented in the stories, enabling a deeper interpretation of the players' experiences.

2.5. Research quality

Consistent with a relativist ontology, a flexible list of criteria was employed in attempts to enhance study quality (Smith & McGannon, 2018; Sparkes & Smith, 2014). The current study considered the criteria of rigour, worthiness, credibility, and a significant contribution to the research field (Smith & Caddick, 2012; Sparkes & Smith, 2014). Rigour was shown through the analysis and construction of the stories being an entirely reflexive process not following a linear fashion. Both Gutkind (1996) and Smith (2013) were used as a guide for the reflexivity and back-and-forth nature of the analysis and story construction process. The stories were regularly cross-referenced with the interview transcripts to ensure that they were accurately representing the subjective realities and experiences of the participants. The study exhibits worthiness by extending the limited evidence base of the experience of 'dopers'. Specifically, it provides findings from a different context (UK rugby players), different presentation of findings, (CNF composite vignettes) and different theoretical lens (Social Identity Theory). In addition, the interpretation of the feelings of the participants was an important part of the criteria for judgement, where 'incitement to action', both intellectually and emotionally, is a crucial part of effective qualitative research in this area (Smith et al., 2015). Most importantly, the resonance of the stories was important. The resonance of the stories was expressed by a coach and former player close to the lead researcher, who had personal experience of some of the vulnerabilities depicted in the stories. The necessity for incitement to action from this study was driven by the motivation to induce a cultural shift within rugby, inciting not just players and coaches, but those in charge of the sporting system (e.g., National Governing Bodies). The purpose of the stories was to evoke a response in the readers to better understand the complexity of doping behaviour and the perspectives of the players.

3. Findings

There are three composite stories written from the perspective of the players exploring the lead-up to the ADRV and how it happened, the situational and environmental pressures experienced in elite rugby that legitimise maladaptive behaviour, and the conflicting emotions experienced in the aftermath of an ADRV. *Story 1* depicts the downward spiral that occurred after experiencing a serious injury and how it led to self-medication using opioid painkillers and cocaine. *Story 2* is about the cultural and social dynamics of rugby and how pressure from the social and physical environment normalises the use of substances. *Story 3* describes the players' conflicting feelings after being sanctioned for an

ADRV and how it negatively and positively affected them, their family, and their wider social circle.

3.1. Leading up to the violation - "You're just treading water. you're surviving."

They say that rugby is about going into a dark place and living there... My body is still broken from last week's match and training two days ago. It's cold. It's hammering it down with rain. My knee hasn't been feeling right for the past few weeks. The physio said I've got a ligament tear, but the coach wants me to play; 'strapping, strapping, strapping' he says. 'It's a massive game this week, we need you'. You've got to put a face on when you're at training or playing in a match, you've got to pretend you don't feel pain. There's a lot of pressure on you personally, to perform, to be a certain way, to look a certain way, to lift a certain way. Most importantly, you've got to adopt a personality that is liked... and it eats you up. You feel the need to constantly kick into being this whole different person that you're not. It's exhausting.

The worst insult you can have as a rugby player is one of your teammates calling you 'soft'. My shoulder is just a niggling injury, I'll play through it. There's nothing else I can do. Rugby is all I've got. It is my identity. I've committed my whole life to this sport since I was a kid. Coming from where I'm from it was always like 'if you can play professional rugby, then that's what you do... it's your ticket out, to having a nice life with your family. It's got to a point where I'm just stuck in this bubble. You're just treading water, you're surviving, you're looking for the next weekend, the next game. You're trying to manage day-to-day, and perform, win, get paid, and get on with people. It's just a weekto-week life in elite rugby. I don't think my body can take playing this week, but I don't want to let my teammates down. I feel like this is do-or-die

...I'm not sure how it happened, one moment I was running into contact, the next moment I'm on the floor with my lower leg facing the wrong way. That was when the decline really started. I couldn't play, I was away from my family, the whole reason I was alive was just gone. I was bored, all my mates were playing and I just... couldn't. When you're in that environment and you're all in, and then you have that taken away from you... I just spiralled. I was boozing, going out, eating crap, just completely lost it. Even when I came back from my injury, training was just something I had to do, I'd lost so much weight. The forwards coach said to me 'You're not playing until you're at least 105kg'. So, then I'd train in the morning, get home, do gym training, eat... I was putting in four-and-a-half thousand, five thousand calories a day. I put on almost two stone in six months. It just got to the point where I just absolutely hated rugby. I was just doing coke (cocaine) all the time, I didn't care, I didn't want to be involved in rugby at all. I was lonely, I was isolated. There was nowhere to turn. The welfare officers were no help, they're ex-players, they're unqualified. The idea of turning round to someone I used to look up to and admitting I had a problem. I couldn't do that. I would be too scared.

...It's got to the point now where I was taking cocaine during the week to self-medicate mental health issues, taking Diazepam to manage the pain of the injury, and doing anything I can just to get through training, whilst hiding everything from my teammates and my family. My knee was fixed, but after coming back into rugby after so long out I didn't care what I put in my body if it was going to help me cope with playing and training through all these injuries. If I didn't play, I didn't get paid my match fee. It doesn't matter how much education I've had. A guy came in and told us how easy it was to test positive for a banned substance, 'just a teaspoon in an Olympic-sized swimming pool'. But you don't believe that. All the players were getting their supplements from the local garage or from their mate at the gym. We were not thinking about "risk minimisation" when it came to the supplements we were using. Supplements are expensive and you're not getting paid anything. I felt like everything that was happening to me was completely out of my control, I was just going through the motions, day in, day out.

3.2. 'There's just this massive amount of social pressure of rugby, not just on the game, but on who you're supposed to be.'

The first time I walked into the senior changing room I remember looking around thinking everyone here is an absolute mutant. You're surrounded by huge men who run through brick walls for a living, I'd never felt so small, mentally and physically. I felt out of place. There was no way I'd make it at this level without getting bigger, I was ninety-four kilos of skin and bone compared to these guys... 'I need to get big, what's the quickest way I can get big?' I remember asking myself. I didn't even think about the consequences, the risks are outweighed by the reward. And it was so easy to come by. I just chatted to the big blokes at my local gym, and before I knew it, I was on growth hormone, steroids, and testosterone. Then a month later I was up to one-hundred-and-eight kilos, it was as easy as that. It's just normalised in this environment, there's guys in the changing room injecting steroids into their legs. It seemed like nothing to me.

Everyone just assumes we've got it all as professional rugby players. Like it's impossible to feel sad or be anxious or suffer from depression if you play elite sport. But it's like a daily job interview, you're constantly having your every move, every effort picked apart with a fine-tooth comb. Plus, there's all those iron age mentalities around masculinity in rugby which have created this façade of players pretending they're okay all the time when they're not. I'd have been embarrassed to admit to feeling really anxious and overwhelmed by what the fans were saying after games, being intimidated by being judged in front of my teammates, crying in my car after bad performances, or feeling worthless as a person. You're just meant to 'toughen up', 'man up', 'don't be soft'. And then in addition to that, if you're not up for the physical challenge of rugby, every single training session, every single matchday, it scares the shit out of you. You've got young players throwing up in bins before going out onto the pitch because they can't deal with it.

Everything is so professional in elite rugby, you're expected to take it really seriously, but then you should absolutely drink twenty beers after a game. None of these boys would drink this much or do stupid stuff on their own... but it's like 'we're a rugby club, we have to do this'. Drinking is just part of being a rugby player and it's difficult to get away from it. If you don't want to drink, you feel like an outcast, you just don't get to be part of the social circle. There's just this massive amount of social pressure in rugby, not just on the game, but on who you're supposed to be, how you're supposed to behave. If you just want to play rugby and not go on the piss everyone's like 'oh you think you're better than us'. And young players just do stuff that they don't want to do because they just want to be accepted. The first senior rugby social I ever went on, everyone was doing cocaine. From then on, there wasn't one year since I went pro that I ever went on a social event and didn't take cocaine.

Every club I went to there was a recreational drug culture. I grew up around people I looked up to taking drugs, it was just accepted. When you've got the figurehead at the top of the social chain with values that condone drugs, that was always reflected in the culture lower down. It was normal to me. So, when I did it as well, I saw it as fine. I was in denial... I was at a point where I was turning up to training, taking cocaine to feel normal, to even function on a daily basis. Then it all came crashing down when my partner caught me lying about it. I just didn't have the strength to admit that I had a problem out of the fear of losing my identity and my purpose as a rugby player. I felt like I was mourning the death of myself. I didn't have the strength to be that alpha male anymore, and that was when I tried taking my own life.

People look at us like superheroes, like champions, and idols. But we're not, we're normal people that make mistakes. Rugby doesn't have the money that other sports have. It's underfunded, the viewing figures are going down, and the people at the top of the game are probably scared of bad marketing, bad press. Nobody is admitting there's a problem, and anyone that does is swiftly brushed under the carpet. In my experience, the only difference between people who can get through

that suicidal point of depression, and those that don't, is their support network. Rugby wants to promote these positive, supportive values, but they would be much more powerful if the governing bodies were to own their issues. You've seen what's been happening with concussion and mental health. But it seems like rugby values are not enacted when it comes to drug use.

3.3. "It was like being hit by a train". The ADRV aftermath

One day, the anti-doping testers came into training, and I got randomly picked out to do a test. 'Say your goodbyes!' I shouted to my teammates as they led me off. In retrospect that probably wasn't the best thing to say. Then, after gym one day, I got the call... I'd be done for doping. My first thought was 'why me?' Out of all the people that take drugs to actually cheat, they picked me. It was like being hit by a train. I couldn't cope. I went through a depression. I was suicidal, really bad, I didn't want to be here. But I got through all of that with the help of my support network. I've made important choices with my social circle and that led to me having enough support. But even that didn't stop the loneliness, the isolation, those feelings that you can't really talk about because you know it's your fault.

You're told all the time that you're responsible for any banned substance that enters your system, no matter how it got there. I wasn't outright trying to cheat. When the letter came through it was a kick in the teeth. It felt like the organisation I always dreamed of representing was now 'against' me. I'm not a criminal, I hadn't committed an actual crime, I'd just fucked up a little. Nobody understands how rugby works. The way doping is spoken about gives you this idea that everyone is getting geared up and getting massive and smashing each other, but it doesn't work like that. Nobody in rugby takes drugs to cheat. I was being treated like I had ruined the sport, but I was just a normal guy being used as a scapegoat to make it look like the governing bodies are doing something about doping.

After a month of knowing I had been banned but not being allowed to tell anyone, it was made public. But when it all came out, it was weird. I realised I was fine. I was relieved. It was probably the best thing that could've happened to me, nothing else would have got me out of it all. I hated the club I was playing for, I hated it. Everyone was under a lot of pressure to perform. I just wasn't happy. I was in a hole. So, when I found out I was going to be banned it was like someone was watching out for me, it just felt completely out of my hands and that was kind of good for me.

I didn't care about the ban; I just didn't want people to think I had cheated. The ban didn't really have that much of an effect on me, but it really affected my family. It put a massive strain on my mum. My family struggled with it more than I did. I stayed off Twitter, so I missed most of the abuse. But I still got messages from random people on social media. 'Fucking idiot', 'meathead', 'Thought you'd be bigger if you were a Roidhead', stuff like that. Everyone just saw me as a bad apple. That was just what they said to deflect the blame. But they've evangelised rugby as a sport so much that they don't believe it can do anything wrong. They wanted to use me as a scapegoat to show that the anti-doping system is working, but I was just unlucky, or targeted, who knows? It might sound strange to say this, but I'm glad it happened. I had mentally checked out of rugby a long time ago, I can't imagine how bad it would have been if I still had my heart set on rugby, I didn't hate rugby as much as I did before the ban. I was lucky I found a path in life after the ban because most people I knew going up in the ranks didn't have a fall-back plan, rugby was everything to them.

The support I've had from within the rugby circle has been amazing, all my teammates, all my coaches have all backed me. Without my friends and family, I wouldn't be here. I just wish I'd had the support when I needed it, when I was struggling with injury and getting back to playing, when I was mentally and emotionally struggling and hated rugby. I wish the support for players with mental health issues was the same for players with physical health issues, it's the same thing. Or even

for injured players, giving them counselling to help deal with the mental toll that's going to come with a serious injury, because the likelihood of you taking drugs in that situation is massive. They should have to sign off players as mentally fit, in the same way as a physio you would sign people off to be physically fit to play. All the psychological support should be preventative, just like you do injury prevention, you should learn coping mechanisms and psychological rehabilitation should be compulsory. But overall, I was lucky. If this happened to someone without the support networks I had, or to someone whose life and identity was just rugby, it could have been a different story.

4. Discussion

The purpose of this research was to better understand the experiences of rugby players who had committed an anti-doping rule violation (ADRV), including the period leading up to the ADRV and the aftermath. In seeking to understand a highly stigmatised and taboo behaviour, it is hoped the presentation of the findings through CNF will provoke empathetic responses and offer an alternative lens through which doping in sport is viewed. Player accounts highlighted the physical, psychological, and social demands of rugby being critical factors leading to substance use being normalised within the rugby environment. Substance use normalisation to cope with the demands of rugby, and the resultant injuries included the abuse of growth hormone, anabolic steroids, opioid painkillers, cocaine, and alcohol. Sanctioned players' accounts demonstrated a perceived lack of support/provision of an alternative course of action to substance use. This was considered a result of the legitimisation of substance use being part of the social identity of being a rugby player.

The findings provide evidence, from a voice that is seldom heard, that doping vulnerability in elite rugby is impacted by social identity transitions (i.e., from rugby player to non-rugby player) and the social circle within the rugby club. The notion of critical incidents that threaten the social identity of a rugby player, such as injury and fighting for a contract, corroborate previous research into vulnerability factors for doping behaviour in rugby (e.g., Cox et al., 2023, Cox et al., 2022; Didymus & Backhouse, 2020; Whitaker & Backhouse, 2017). The findings also support the idea that having an identity beyond sport (including social networks and a 'dual career') is an essential protective factor for doping (e.g., Erickson et al. 2015; Lentillon & Carstairs, 2010). In the current study, the stories portray the struggle to psychologically cope with serious injury and the social identity transition associated with it. Athletic identity transition and its impact on perceived meaning and control over one's life without multiple group memberships is a key finding from Haslam et al. (2021). Taken together, social factors can increase vulnerability to doping and are therefore worthy of more attention. The key factor here is not the injury mentioned in the interviews, but the perceived lack of social support to cope with the transition from rugby player to non-rugby player over an uncertain time period associated with the injury. Future research should focus on the social dynamics of rugby and the powerful cultural norms that can lead to harmful behaviours to understand how support for players experiencing critical incidents, such as injury, can be implemented more effectively.

The current study has illustrated that players experienced a lack of identification with the rugby social environment while still playing rugby. This led them to feel isolated. As written by Haslam et al. (2022, p.163): 'social identity allows us to overcome the otherwise crippling challenges of psychological isolation'. Given that research has found that pre-existing social support from only one social identity may be of little benefit when an individual is undergoing a social identity transition (e.g., transitioning from playing rugby to not playing due to injury) (Praharso et al., 2017), social identity interventions may be needed. Social identity interventions focus on developing multiple social group memberships, to counter social isolation and psychological distress (Haslam et al., 2016). The moderate to strong positive effect on health

that social identity interventions were found to have by Steffens et al. (2021) shows the efficacy of use in the context of managing critical incidents in elite rugby to prevent maladaptive behaviour (such as doping).

As contemporary research suggests moving from a reactionary to a proactive approach to anti-doping (e.g., Naughton et al., 2024), the importance of multi-faceted interventions at the point of critical incidents cannot be underestimated (e.g., Backhouse et al. 2018). Therefore, the CNF offers a pedagogical resource to stimulate anti-doping organisations and national governing bodies to provide social identity interventions for those experiencing psychological isolation stemming from a critical incident. Social identity interventions may vary in length and format, but they aim to provide individuals with the skills to develop multiple group memberships to maintain and facilitate social support. Social identity interventions would aim to increase social connections and coping mechanisms, and, in turn, reduce feelings of isolation and other aspects of vulnerability (e.g., process the psychological strain of playing, pressure to perform no matter what, feelings of 'hate' towards rugby). This may decrease the perceived necessity for prohibited substance use amongst rugby players.

While the recommendations so far address the 'problem' of doping in rugby at an individual level, the normalisation of substance use within rugby culture is a key driver of substance abuse within the rugby environment. Findings from the present study suggest that the open acceptance and use of opioid painkillers, cocaine, and abuse of alcohol, is likely to increase the incidence of further substance use and abuse. Research into the role of culture in substance use has shown that the normalisation of substance use within a social identity (e.g., bodybuilders) will result in an increase in an individual's perception of what level of substance use is deemed acceptable, and potentially result in abuse (Monaghan et al., 2000). Additionally, alongside the normalisation of substance use, the 'toughness' associated with the rugby identity increases players' willingness to play through pain and illness and feel marginalised by their peers if they do not (Chesson et al. 2023; Overbye, 2021). This identity of toughness promotes an environment where players feel like they 'can't admit they have a problem' and self-medication for pain associated with rugby is normal. This was evidenced in the stories, where the player saw the use of prohibited substances as being 'part of the sport'. Therefore, this research should prompt sport administers to consider the cultural shift that may be needed in rugby league and union to actively address this normalisation of self-medication. Currently, the organisational support that is available to rugby players (e.g., welfare officers or NGBs) was not perceived by our participants as something they want to engage in. Encouraging help-seeking behaviours beyond current support is important, and future research should seek to better understand the social and cultural mechanisms that promote and perpetuate substance use and abuse in rugby and prevent help-seeking, as our current understanding is limited.

Given our aspirations to illuminate the lived experiences of rugby players who have committed an ADRV and in doing so offer a stimulus for action (through the CNF), it is necessary for us to consider an issue that might be deemed problematic by some. Specifically, the 'problem' of generalising from a sample where n = 2. Clearly, qualitative research does lack generalisability when it is viewed only from the perspective of statistical-probabilistic generalisability (Sparkes & Smith, 2014). However, this conceptualisation is not a relevant or meaningful goal for qualitative research (Smith, 2018). We therefore present 'generativity' as an alternative notion of generalisability in qualitative research. Generativity is defined by Barone and Eisner (2012, pp. 151-152) as "the ways in which a work enables one to see or act upon phenomenon even though it represents a kind of case study with an n of only one". In line with this, we hope vicarious connections are made between the readers' own experiences and worldviews in relation to sanctioned athletes, and those shared through the CNF stories. This is to evoke feeling and inspire change, rather than to generalise about the scope and cause of a problem (Smith, 2018).

5. Conclusion

This study provides an insight into the lived experiences of rugby players who have received a sanction for an ADRV. It highlights a problematic culture in rugby league and union, whereby the abuse of substances like cocaine and alcohol and the use of performance and image-enhancing substances is normalised. Alongside the previously understood high rate of long-term injuries and pressure on rugby players to perform, this study exposes the lack of organisational support and effective education that could help vulnerable players. The CNF has added depth to our understanding of doping in sport, by affording players the opportunity to convey the emotions they experienced in the lead-up to the violation, and following the sanction. The social identity transition that occurs when a player experiences an injury or other critical incident (e.g., a performance 'tipping point' such as deselection) is a powerful contributing factor to doping. Further research should seek to examine the efficacy of a social identity intervention in supporting players during critical incidents and those returning to sport after a sanction.

CRediT authorship contribution statement

Justin D. Hall: Writing – review & editing, Writing – original draft, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. Laurie B. Patterson: Writing – review & editing, Writing – original draft, Supervision, Methodology, Investigation, Formal analysis, Conceptualization. Susan H. Backhouse: Writing – review & editing, Writing – original draft, Supervision, Methodology, Investigation, Formal analysis, Conceptualization.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

References

- Aguilar-Navarro, M., Salinero, J. J., Muñoz-Guerra, J., Plata, M. D. M., & Del Coso, J. (2020). Sport-specific use of doping substances: Analysis of world anti-doping agency doping control tests between 2014 and 2017. Substance Use & Misuse, 55(8), 1361–1369. https://doi.org/10.1080/10826084.2020.1741640
- Allen, J., Taylor, J., Dimeo, P., Dixon, S., & Robinson, L. (2015). Predicting elite Scottish athletes' attitudes towards doping: Examining the contribution of achievement goals and motivational climate. *Journal Of Sports Sciences*, 33(9), 899–906.
- Backhouse, S. H., Griffiths, C., & McKenna, J. (2018). Tackling doping in sport: A call to take action on the dopogenic environment. *British Journal of Sports Medicine*, *52*(23), 1485–1486. https://doi.org/10.1136/bjsports-2016-097169
- Barkoukis, V., Brooke, L., Ntoumanis, N., Smith, B., & Gucciardi, D. F. (2019). The role of the athletes' entourage on attitudes to doping. *Journal Of Sports Sciences*, 37(21), 2483–2491.
- Barkoukis, V., Lazuras, L., Tsorbatzoudis, H., & Rodafinos, A. (2013). Motivational and social cognitive predictors of doping intentions in elite sports: An integrated approach. Scandinavian journal of medicine & science in sports, 23(5), e330–e340. https://doi.org/10.1111/sms.12068
- Barone, T., & Eisner, E. (2012). Arts based research. Sage. https://doi.org/10.4135/9781 452230627.
- Blodgett, A. T., Ge, Y., Schinke, R. J., & McGannon, K. R. (2017). Intersecting identities of elite female boxers: Stories of cultural difference and marginalization in sport. *Psychology of Sport and Exercise*, 32, 83–92. https://doi.org/10.1016/j. psychsport.2017.06.006
- Bruner, M. W., Boardley, I. D., & Côté, J. (2014). Social identity and prosocial and antisocial behavior in youth sport. *Psychology of Sport and Exercise*, 15(1), 56–64. https://doi.org/10.1016/j.psychsport.2013.09.003
- Bruder, M., Fischer, A., & Manstead, A. S. (2014). Social appraisal as a cause of collective emotions. Collective emotions. 141–155.
- Cavallerio, F.e.d (Ed.). (2022). Creative nonfiction in sport and exercise research. London, UK: Routledge.
- Chan, D. K. C., Dimmock, J. A., Donovan, R. J., Hardcastle, S. A. R. A. H., Lentillon-Kaestner, V., & Hagger, M. S. (2015). Self-determined motivation in sport predicts anti-doping motivation and intention: A perspective from the trans-contextual model. *Journal of Science and Medicine in Sport*, 18(3), 315–322. https://doi.org/10.1016/j.jsams.2014.04.001

- Chan, D. K. C., Keatley, D. A., Tang, T. C., Dimmock, J. A., & Hagger, M. S. (2018). Implicit versus explicit attitude to doping: Which better predicts athletes' vigilance towards unintentional doping? *Journal of science and medicine in sport*, 21(3), 238–244
- Chase, S. (1995). Taking narrative seriously. The Narrative Study Of Lives, 3, 1-26.
- Chesson, L., Jones, B., & Backhouse, S. H. (2023). Is the focus in professional rugby ever really on health?": A qualitative study on the uptake of illness prevention guidelines in rugby. Psychology of Sport and Exercise, 64, Article 102327. https://doi.org/ 10.1016/j.psychsport.2022.102327
- Christiansen, A. V., Frenger, M., Chirico, A., & Pitsch, W. (2023). Recreational Athletes' Use of Performance-Enhancing Substances: Results from the First European Randomized Response Technique Survey. Sports Medicine-Open, 9(1), 1–17. https://doi.org/10.1186/s40798-022-00548-2
- Crotty, M. (1998). The foundations of social research: Meaning and perspective in the
- Cox, L. T. J., Bloodworth, A., & McNamee, M. (2022). Doping in recreational welsh rugby union; athletes' beliefs and perceptions related to anti-doping policy and practice. Performance Enhancement & Health, 10(2), Article 100211. https://doi.org/10.1016/ ipeb.2021.100211
- Cox, L. T. J., McNamee, M., Petróczi, A., & Bloodworth, A. (2023). Why size matters; rugby union and doping. *Performance Enhancement & Health*, 11(2), Article 100250. https://doi.org/10.1016/j.peh.2013.100250
- Denzin, N. K., & Lincoln, Y. S. (2005). Qualitative research. *Denzin. NK y Lincoln, YS.*, 2. Denzin, N. K., & Lincoln, Y. S. (2011). *The sage handbook of qualitative research.* Thousand Oaks, California: Sage.
- Didymus, F. F., & Backhouse, S. H. (2020). Coping by doping? A qualitative inquiry into permitted and prohibited substance use in competitive rugby. Psychology of Sport and Exercise, 49, Article 101680. https://doi.org/10.1016/j.psychsport.2020.101680
- Duncan, L. R., Hallward, L., & Alexander, D. (2018). Portraits of adolescent athletes facing personal and situational risk factors for doping initiation. *Psychology of Sport* and Exercise, 39, 163–170.
- Dwyer, S. C., & Buckle, J. L. (2009). The space between: On being an insider-outsider in qualitative research. *International Journal Of Qualitative Methods*, 8(1), 54–63. https://doi.org/10.1177/160940690900800105
- Engelberg, T., Moston, S., & Skinner, J. (2015). The final frontier of anti-doping: A study of athletes who have committed doping violations. Sport Management Review, 18(2), 268–279. https://doi.org/10.1016/j.smr.2014.06.005
- Erickson, K. (2019). Athlete suspended for presence of banned substance": A storied approach to protecting student-athletes from doping in sport. *Journal for the Study of Sports and Athletes in Education*, 13(3), 214–234. https://doi.org/10.1080/19357397.2019.1648149
- Erickson, K., McKenna, J., & Backhouse, S. H. (2015). A qualitative analysis of the factors that protect athletes against doping in sport. *Psychology Of Sport And Exercise, 16*, 149–155. https://doi.org/10.1016/j.psychsport.2014.03.007
- Erickson, K., Patterson, L. B., & Backhouse, S. H. (2019). The process isn't a case of report it and stop": Athletes' lived experience of whistleblowing on doping in sport. Sport management review, 22(5), 724–735.
- Feddersen, N. B. (2021). The emergence and perpetuation of a destructive culture in a british olympic sport. *Creative nonfiction in sport and exercise research* (pp. 119–128). Routledge.
- Gutkind, L. (1996). From the editor: The 5 rs of creative nonfiction (pp. 1–14). Creative Nonfiction.
- Haslam, S.A., Boen, F., & Fransen, K. (2020). The new psychology of sport and exercise: The social identity approach.
- Haslam, C., Cruwys, T., Haslam, S. A., Dingle, G., & Chang, M. X. L. (2016). Groups 4 Health: Evidence that a social-identity intervention that builds and strengthens social group membership improves mental health. *Journal Of Affective Disorders*, 194, 188-195
- Haslam, C., Haslam, S. A., Jetten, J., Cruwys, T., & Steffens, N. K. (2021). Life change, social identity, and health. *Annual Review of Psychology*, 72, 635–661. https://doi.org/10.1146/annurev-psych-060120-111721
- Haslam, S. A., Haslam, C., Cruwys, T., Jetten, J., Bentley, S. V., Fong, P., et al. (2022). Social identity makes group-based social connection possible: Implications for loneliness and mental health. Current Opinion In Psychology, 43, 161–165. https://doi.org/10.1016/j.copsyc.2021.07.013
- Holloway, I., & Biley, F. C. (2011). Being a qualitative researcher. *Qualitative Health Research*, 21(7), 968–975. https://doi.org/10.1177/1049732310395607
- Kendellen, K., & Camiré, M. (2021). A creative non-fiction story of an athlete's journey through the life skills application process. Qualitative Research in Sport, Exercise and Health, 13(5), 816–831. https://doi.org/10.1080/2159676X.2020.1803392
- Kirby, K., Moran, A., & Guerin, S. (2011). A qualitative analysis of the experiences of elite athletes who have admitted to doping for performance enhancement. *International Journal Of Sport Policy And Politics*, 3(2), 205–224. https://doi.org/10.1080/ 19406940.2011.577081
- La Torre, G., Limongelli, F., Masala, D., Brancaccio, P., Raffaele, C., Capelli, G., et al. (2004). Determinants of drug use in sport: A survey of Italian athletes. *Italian Journal of Public Health*. 1(3–4).
- Lauritzen, F., & Holden, G. (2022). Intelligence-based doping control planning improves testing effectiveness-Perspectives from a National anti-doping organisation. *Drug Testing and Analysis*. https://doi.org/10.1002/dta.3435
- Lentillon-Kaestner, V., & Carstairs, C. (2010). Doping use among young elite cyclists: A qualitative psychosociological approach. Scandinavian Journal Of Medicine & Science In Sports, 20(2), 336–345. https://doi.org/10.1111/j.1600-0838.2009.00885.x
- Lewis, C. J., Roberts, S. J., Andrews, H., & Sawiuk, R. (2020). A creative writing case study of gender-based violence in coach education: Stacey's story. Women in Sport

- and Physical Activity Journal, 28(1), 72-80. https://doi.org/10.1123/wspaj.2018-
- Lincoln, Y. S., & Guba, E. G. (1985). Naturalistic inquiry. sage.
- McLean, S., Naughton, M., Kerhervé, H., & Salmon, P. M. (2023). From Anti-doping-I to Anti-doping-II: Toward a paradigm shift for doping prevention in sport. *International Journal of Drug Policy*, 115, Article 104019. https://doi.org/10.1016/j. drugpo.2023.104019
- Mittereder, F., Durow, J., West, B. T., Kreuter, F., & Conrad, F. G. (2018). Interviewer–respondent interactions in conversational and standardized interviewing. *Field Methods*, 30(1), 3–21. https://doi.org/10.1177/1525822X17729341
- Monaghan, L., Bloor, M., Dobash, R. P., & Dobash, R. E. (2000). Drug-taking, "risk boundaries" and social identity: bodybuilders' talk about Ephedrine and Nubain. Sociological Research Online, 5(2), 45–56.
- Mottram, D. (2022). The evolution of doping and anti-doping in sport. *Drugs in sport* (pp. 17–36). Routledge.
- Naughton, M., Salmon, P. M., Kerherve, H. A., & McLean, S. (2024). Applying a systems thinking lens to anti-doping: A systematic review identifying the contributory factors to doping in sport. *Journal of Sports Sciences*, 1–15.
- Ntoumanis, N., Dølven, S., Barkoukis, V., Boardley, I., Hvidemose, J., Juhl, C., et al. (2024). Psychosocial predictors of doping intentions and use in sport and exercise: A systematic review and meta-analysis. *British Journal of Sports Medicine*. https://doi. org/10.1136/bjsports-2023-107910
- Oftadeh-Moghadam, S., & Gorczynski, P. (2022). A systematic review of the prevalence of mental health symptoms and disorders in rugby players. *Journal of Clinical Sport Psychology*, 18(1), 37–55.
- Orr, K., Smith, B., Arbour-Nicitopoulos, K. P., & Wright, F. V. (2021). The café talk: A discussion of the process of developing a creative non-fiction. *Qualitative Research in Sport, Exercise and Health, 13*(6), 887–903. https://doi.org/10.1080/2159676X.2020.1834443
- Overbye, M. (2021). Walking the line? An investigation into elite athletes' sport-related use of painkillers and their willingness to use analgesics to train or compete when injured. *International Review for the Sociology of Sport*, *56*(8), 1091–1115. https://doi.org/10.1177/1012690220973552
- Praharso, N. F., Tear, M. J., & Cruwys, T. (2017). Stressful life transitions and wellbeing: A comparison of the stress buffering hypothesis and the social identity model of identity change. Psychiatry Research, 247, 265–275. https://doi.org/10.1016/j. psychres.2016.11.039
- Read, D., Skinner, J., Lock, D., & Houlihan, B. (2019). Legitimacy driven change at the world anti-doping agency. *International Journal of Sport Policy and Politics*, 11(2), 233–245. https://doi.org/10.1080/19406940.2018.1544580
- Smith, B. (2013). Sporting spinal cord injuries, social relations, and rehabilitation narratives: An ethnographic creative non-fiction of becoming disabled through sport. Sociology Of Sport Journal, 30(2), 132–152. https://doi.org/10.1123/ssj.30.2.132
- Smith, B. (2018). Generalizability in qualitative research: Misunderstandings, opportunities and recommendations for the sport and exercise sciences. *Qualitative Research in Sport, Exercise and Health*, 10(1), 137–149. https://doi.org/10.1080/2159676X.2017.1393221
- Smith, B., & Caddick, N. (2012). Qualitative methods in sport: A concise overview for guiding social scientific sport research. Asia Pacific journal of sport and social science, 1(1), 60–73. https://doi.org/10.1080/21640599.2012.701373
- Smith, B., McGannon, K. R., & Williams, T. L. (2015). Ethnographic creative nonfiction: Exploring the whats, whys and hows. Ethnographies in sport and exercise research (pp. 59–73). Routledge.
- Smith, B., Sparkes, A. C., & Caddick, N. (2014). Judging qualitative research. Research methods in sports coaching (pp. 192–201). Routledge. https://doi.org/10.4324/ 9780203797549-18
- Sparkes, A., & Smith, B. (2014). Qualitative research methods in sport, exercise and health: From process to product. Routledge. https://doi.org/10.4324/9780203852187
- Steffens, N. K., LaRue, C. J., Haslam, C., Walter, Z. C., Cruwys, T., & Munt, K. A. (2021). Social identification-building interventions to improve health: A systematic review and meta-analysis. *Health Psychology Review*, 15(1), 85–112.
- Tajfel, H. (1979). Individuals and groups in social psychology. *British Journal Of Social And Clinical Psychology*, 18(2), 183–190. https://doi.org/10.1111/j.2044-8260.1979.tb00324.x
- Ulrich, R., Pope, H. G., Cléret, L., Petróczi, A., Nepusz, T., Schaffer, J., et al. (2018). Doping in two elite athletics competitions assessed by randomized-response surveys. Sports Medicine, 48, 211–219. https://doi.org/10.1007/s440279-017-0765-4
- Waddell, M. (2002). Inside lives: Psychoanalysis & the growth of the personality. London:
- Whitaker, L., & Backhouse, S. (2017). Doping in sport: An analysis of sanctioned UK rugby union players between 2009 and 2015. *Journal of sports sciences*, 35(16), 1607–1613. https://doi.org/10.1080/02640414.2016.1226509
- Whitaker, L., Backhouse, S. H., & Long, J. (2014). Reporting doping in sport: National level athletes' perceptions of their role in doping prevention. Scandinavian Journal Of Medicine & Science In Sports, 24(6), e515–e521. https://doi.org/10.1111/sms.12222
- World Anti-Doping Agency (2021). International standard for education (ISE). Retrieved from https://www.wada-ama.org/en/resources/world-anti-doping-code-and-in ternational-standards/international-standard-education-ise Accessed February 7, 2025.
- World Anti-Doping Agency (2025). Research projects. Retrieved from https://www.wa da-ama.org/en/search/research-projects?filters%5Bresource_collection%5D%5B0%5D%5B0%5D=%22Social%20Science%20Research%22&sort-by=relevance Accessed February 7, 2025.

Further readings

- Boardley, I. D., Grix, J., Ntoumanis, N., & Smith, A. L. (2019). A qualitative investigation of coaches' doping confrontation efficacy beliefs. Psychology of Sport and Exercise, 45, 101576. https://doi.org/10.1016/j.psychsport.2019.101576 Phillipson, R. (1992). Linguistic imperialism. Oxford University Press.
- Van der Kallen, F., Lux, D., Schobersberger, W., Kleiner, K., Eisenburger, I., & Blank, C. (2023). Life after doping: Do the consequences of an anti-doping rule violation threaten athletes' health? Design and development of an interview guide for the
- assessment of biopsychosocial changes following a doping ban. Performance Enhancement & Health, 11(1), 100240. https://doi.org/10.1016/j.peh.2022.100240 Patterson, L.B., Backhouse, S.H., & Jones, B. (2022). The role of athlete support
- personnel in preventing doping: A qualitative study of a rugby union academy. Qualitative Research in Sport, 1–19. doi:10.1080/2159676X.2022.2086166.
 World Anti-Doping Agency (2021a). Anti-doping rule violations (ADRV) report.
- Retrieved from https://www.wada-ama.org/sites/default/files/2022-01/2019_adrv_report_external_final_12_december_2021_0_0.pdf Accessed November 10, 2023.