

Impact case study (REF3)

Institution: Leeds Beckett University (LBU)		
Unit of Assessment: 24 – Sport and Exercise Science, Leisure and Tourism		
Title of case study: Changing Global Anti-Doping Policy and Practice		
Period when the underpinning research was undertaken: 2013-2019		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s):	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Prof Susan Backhouse	Director of Research	2003 - present
Dr Laurie Patterson	Senior Lecturer	2010 - present
Prof Jim McKenna	Professor	2009 - present
Prof David Carless	Professor	2006 - Aug 2019
Prof Jonathan Long	Professor	2001 - June 2017
Dr Kelsey Erickson	Senior Research Fellow	2015 - May 2019
Dr Lisa Whitaker	Research Officer	2013 - Jan 2018
Period when the claimed impact occurred: 2016 – 2020		
Is this case study continued from a case study submitted in 2014? No		
1. Summary of the impact		
<p>Research led by Leeds Beckett University (LBU) has elicited changes in the education policies, practices and provisions of international anti-doping organisations (e.g., World Anti-Doping Agency, Anti-Doping Norway, Doping Authority Netherlands, UK Anti-Doping Agency), international and national sports federations (e.g., World Rugby, Rugby Football Union) and international organisations (e.g., United Nations Office on Drugs and Crime and International Olympic Committee). LBU's multi-stakeholder programme of research has shifted the focus of the anti-doping system from individual athlete culpability and the 'fix the bad apple' narrative to promoting strategies that concurrently address individual, social and environmental factors to prevent doping in sport. Collectively, these research impacts benefit thousands of athletes and their support personnel worldwide.</p>		
2. Underpinning research		
<p>Doping remains a significant threat to the integrity of sport and poses a risk to public health. Research led by Professor Susan Backhouse at LBU since 2005 has drawn upon the psychosocial, contextual and behavioural factors of doping to shift policies and practices upstream to address the complex and dynamic nature of doping. In doing so, this research has brought into sharp focus the limitations of current detection-deterrence approaches that concentrate on individual athlete culpability. By conducting research that seeks to identify, describe and interpret the social structures and processes that encourage and sustain doping behaviour, LBU research has evidenced (1) athlete doping vulnerability and the need to take action on the dopogenic environment and (2) the inherent challenges of reporting doping.</p>		
<i>Evidencing athlete doping vulnerability and the need to take-action on the dopogenic environment.</i>		
<p>LBU research has demonstrated that doping in sport cannot be prevented by solely focussing on the individual athlete. Instead, LBU research underscores the need to address the opportunities and conditions that promote anti-doping rule violations (ADRVs) – or as we termed it in a British Journal of Sports Medicine Editorial, the <i>dopogenic</i> environment. Acting as salient influencers, we found that coaches and parents can guard against the dopogenic environment, but they can also create the dopogenic conditions that give rise to athlete vulnerability [1, 2, 3, 4]. For example, through in-depth qualitative interviews, we have highlighted that parents and coaches send strong signals to their athletes; shaping their (anti)-doping behaviours and approach to sport throughout their athletic career [1, 2, 4]. While coach and parental influence is regularly asserted and supported by anecdotal accounts, we have provided the empirical evidence in support of these</p>		

claims. Indeed, the strength of their influence, combined with their limited knowledge of anti-doping rules and regulations, justifies targeted and tailored anti-doping education for parents and coaches as a foundation for global preventive efforts.

Extending our understanding of athlete vulnerability, LBU provided the first empirical evidence of food supplement use as a potential gateway for doping in sport [3]. Specifically, food supplement users had a more positive attitude toward doping and expressed a greater belief that doping is effective. When presented with scenarios that prohibited substances are effective and increase winning, food supplement users were more in favour of competing in situations that allow doping. Following on from this study, and in partnership with one of sports largest national governing bodies – the Rugby Football Union – LBU researchers went on to address the absence of evidence on the factors that influence players' decision-making in terms of their diet, training and rugby lifestyles. This unique three-year multi-method programme of research captured the thoughts, feelings and behaviours of over 800 schoolboys, teachers and coaches through a comprehensive survey, in-depth focus groups and interviews. The partnership gave the research team unparalleled access to school age players and coaches to better understand the pressures of the school-rugby environment. The results showed a variety of challenges facing young players, which previously had been unknown or only estimated from anecdotal evidence. Therefore, the research has been critical to evolving understanding of the context of adolescent rugby and the motivations that may drive intentional and inadvertent doping [4], highlighting the need for more tailored education provisions for young players and coaches.

Evidencing the inherent challenges of reporting on doping in sport

Athletes and support personnel are increasingly encouraged to 'blow the whistle' on doping in sport and the introduction of 'report doping in sport' hotlines highlight the growing emphasis on intelligence-led approaches to anti-doping. Yet, there is a limited understanding of the doping whistleblower experience. Beginning in 2014, in-depth qualitative research conducted by LBU researchers with athletes and real-life doping whistleblowers has provided the only sport-specific empirical evidence to guide global whistleblowing policy and practice to deter and prevent doping in sport [5 & 6]. LBU research has highlighted the concern for self, relationships, reputation, and not knowing how to whistleblow as representing significant barriers to whistleblowing on doping in sport. LBU findings also highlight contextual differences across individual and team sports. Specifically, track and field athletes would adopt the role of a whistle-blower and report individuals who were doping in their sport. In comparison, rugby league players highlighted a moral dilemma; despite disagreeing with their teammates' actions, the players would adhere to a code of silence and refrain from reporting doping [4].

In 2017 the World Anti-Doping Agency commissioned LBU researchers to conduct a comprehensive programme of research on reporting doping in sport. One of the research outputs generated was a creative non-fiction story depicting the unique experiences of doping whistleblowers' [6]. Taken together, this body of evidence illuminates the complex process that whistleblowers navigate, including the intensely emotional experience triggered by this courageous act. As such, LBU's research contributes important findings regarding an understudied mechanism to protect the integrity of sport and the welfare of athletes. These findings prompted action on the part of the global sporting system and its stakeholders. In particular, it demonstrated a need to establish an open culture in sport, where people feel able to speak up and have confidence their concerns will be listened to – and acted upon. Further, the research underscores the need to develop skills to speak up and increase awareness of reporting channels to enable collective action to protect sporting integrity and athlete welfare.

3. References to the research

Selected outputs represent original research conducted by LBU academics. All but one are published in quartile 1 journals that reflect the specific foci of research presented and are peer reviewed by experts. Outputs 1, 4 and 6 were produced from funding from the International Athletics Foundation (\$35,568USD), Rugby Football Union (£69,522) and World Anti-Doping Agency (\$68,274USD), respectively.

- [1] Erickson, K., Backhouse, S. H., & Carless, D. (2017). Doping in Sport: Do Parents Matter? *Sport, Exercise, and Performance Psychology*, 6(2), 115-128. <https://doi.org/10.1037/spy0000081> Funded by the International Athletics Foundation
- [2] 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>
- [3] Backhouse, S.H., Whitaker, L., & Petróczi, A. (2013). Gateway to doping? Investigating supplement use in the context of preferred competitive situations, doping attitude, beliefs and norms. *Scandinavian Journal of Medicine and Science in Sport*, 23(2), 244–252. <https://doi.org/10.1111/j.1600-0838.2011.01374.x> First Published Aug 2011.
- [4] Backhouse, S.H., Whitaker, L., McKenna, J., Beggs, C. & Petroczi, A. (2016). Schoolboy supplement use behaviours and doping vulnerability. Commissioned Multi-Method Research Report for the Rugby Football Union.
- [5] 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 and Science in Sport*, 24(6): e515–e521. <https://doi.org/10.1111/sms.12222>
- [6] 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. <https://doi.org/10.1016/j.smr.2018.12.001>

4. Details of the impact

LBU research conducted since 2013 has changed the education policies, strategies and provisions of the global anti-doping community, as corroborated by globally powerful sporting bodies, including the World Anti-Doping Agency (WADA), World Rugby, International Olympic Committee, Doping Authority Netherlands, Anti-Doping Norway, Sport Ireland and UK Anti-Doping. Collectively, these policies, practices and provisions impact thousands of athletes and their support personnel globally. LBU pathways to impact have been extensive and include global expert advisory roles, targeted knowledge exchange, and collaborative partnerships with research beneficiaries.

Changing the lens through which global anti-doping organisations view the problem of doping in sport

The World Anti-Doping Agency – the global body responsible for anti-doping policies, procedures and practices across all countries in the world - has confirmed that research conducted by LBU has “*provided an evidence base for WADA to promote a shift in global anti-doping policy and to redress this balance to a more effective preventative approach to anti-doping*” [A]. This shift is evidenced by other international anti-doping organisations. For example, the Education Manager of Sport Ireland corroborates “*the research conducted by LBU has directly impacted how Sport Ireland deliver anti-doping education. We now focus on enabling clean sport behaviours by equipping athletes with the knowledge, skills and opportunities to compete clean and understand where to go for help and assistance. Sport Ireland now targets athlete support personnel and parents with anti-doping education to ensure that there is consistent messaging and information*” [B]. Also drawing upon LBU research highlighting athlete vulnerability and the conditions and opportunities that promote anti-doping rule violations, the Director of Prevention and Public Health at Anti-Doping Norway confirms “*your concepts of a dopogenic environment, risk factors and protective factors etc. have helped form our programs and tools offered to sport clubs, sport federations, fitness centers, schools, and of course our community based approach to anti-doping through our program ‘Local Mobilization Against Doping’, with a total reach of 25,000-30,000 people each year*” [C]. The impact of LBU’s research was also highlighted by the Director of Prevention at Doping Authority Netherlands who confirmed it had an effect on “*looking at doping as a systemic problem, the decision to have a clean sport curriculum for parents in 2018, our input for discussions we have around whistleblowing in our Education session, Gold, and our current supplement policy*” [D]. Like in Norway, this is significant impact considering Doping Authority Netherlands’ clean sport curricula target approximately 20,000 athletes (from youth to elite) and their support personnel (including parents) [D]. Further, LBU’s research led to the development of

their *Support Clean Sport Be Proud Education* (www.beproud.education) programme (partnered with 36 elite sport organisations in the Netherlands).

Directing international parent and coach education provision

Illuminating LBU's impact on international education provision, WADA confirm that LBU research has *"been used by our education team to inform our global programmes. For example, research pointing to the important role of parents in doping prevention [1] has informed a new education tool (Parents' Guide to Support Clean Sport) published in 2017 [A].* LBU's underpinning research was cited by WADA on their website when they launched the Parents' Guide to the global anti-doping community [E]. Consequently, LBU research has led to multiple national anti-doping organisations and international federations sharing this guide (e.g., Drug Free Sport New Zealand, South Africa Institute for Drug Free Sport) and providing parent education resources in their programmes (e.g., Doping Authority Netherlands, in 2018 [D]).

At World Rugby, even though parents are outside the direct scope of their policy, LBU's research findings compelled the education team to act and parents are now included as a specific user-type in their e-learning programme, released in 2020. By including parents, World Rugby are seeking to ensure the reach of their education provision extends beyond the elite level [F]. In addition to the impact on parent education provision, LBU's research encouraged World Rugby to *"re-evaluate the focus given to coach education given the evidence provided indicating that an athlete's personal decision making is influenced by coaches who become increasingly important as an athlete progresses in their career".* This has led to more resources being provided for this group as part of World Rugby's standard provision [F].

In 2017, LBU's ongoing research with athlete support personnel led to **Backhouse** convening and Charing the British Association of Sport and Exercise Sciences Clean Sport Interest Group. This led to the establishment of UK Anti-Doping's (UKAD) Annual Clean Sport at the Front-Line event, bringing together over 100 athlete support personnel. The benefits for UKAD are already being realised as Trevor Pearce, Chair of UK Anti-Doping's Board, states: *"these groups have been 'hard to reach' for UKAD but this conference continues to go from strength to strength to ensure that those in athlete support personnel roles are well equipped with the latest anti-doping knowledge and research" [I].*

Prioritising food supplement education at World Rugby and the Rugby Football Union

World Rugby corroborate that LBU's research, conducted in partnership with the Rugby Football Union (RFU) has *"directly influenced our approach to supplement education and has raised our awareness about the importance of this area in rugby and have significantly increased our provision of supplement education including the publishing of two new multi-language information films for participants on supplements, and a 'spot the warning signs' supplement label test on our new e-learning site" [F].* Further, LBU research has significantly influenced how World Rugby approach their preventative work, leading to them offering tips on healthy nutrition and conditioning as part of their new anti-doping e-learning education module, released in 2020. This education module has international reach as it has been produced in 12 languages [F]. Owing to the breadth and depth of LBU's programme of research, its findings have directly impacted numerous policies, operations and processes at World Rugby. Subsequently, LBU research has directly informed World Rugby's Education Policy [F] that governs all 102 Member Unions.

LBU's research with the RFU – which focused on food supplement use - led to the organisation developing a strategy for anti-doping in the community game [G]. This strategy was the first of its kind. The manager of the RFU's anti-doping and illicit drugs programme, said: *"The latest findings from our joint research project with LBU shows a lack of awareness in age-grade players, particularly around the use of supplements and therefore raising the risk of vulnerability to doping. This, and wider concerns about low awareness around doping and its impact, led us to develop a strategy for anti-doping in the community game. It will see us increase our focus on improving awareness, enhancing education and increasing testing within the community game" [G].* In the RFU's 2017-18 Annual Report they confirmed an increase in the budget for anti-doping education in the community game to increase support for community players around a healthy lifestyle and

optimal diet, in order to decrease the potential risk factors for doping. As an example of direct action taken from the research, the Food for Rugby website (<https://www.englandrugby.com/participation/playing/food-for-rugby>) underwent a major redesign in 2017 to make it more user friendly with a greater amount of information directed towards young players. The site receives approximately 200,000 hits per year and has greatly enhanced the RFUs ability to offer high quality nutritional advice [G]. A further significant change generated from the research can be seen in the education provision offered to players by the RFU. The advice offered significantly shifted from Season 2017/18 away from a compliance perspective to a more player welfare centric approach. Over 2000 young players have benefited from the revised education workshops where a greater emphasis has been placed upon interaction with the issues raised in the LBU research [G].

Directing global whistleblowing policy and guidance on reporting mechanisms in sport

LBU research on reporting on doping in sport has directly impacted the policies, practices and processes of global anti-doping organisations and the global sporting movement. For example, LBU's research has been identified as *"Informing directly, the development of WADA's whistleblowing policy [published in 2016] (including helping with the naming of the online platform to support this, 'Speak Up')"* [A]. By illuminating the emotional and relational dimension of reporting doping in sport, LBU research has offered a more holistic and relational perspective on the action of reporting wrongdoing and this is reflected in the 2019 International Olympic Committee (IOC) and the United Nations Office on Drugs and Crime (UNODC) Practical Guide for Development and Implementation on Reporting Mechanisms in Sport [H]. Specifically, LBU research directly informed one of the three key principles of the guide – trustworthiness. It also directly informed the global guidance on reporting interfaces, collaboration and support for reporting persons sections of the guide. The primary audience of this guide includes national and international federations, National Olympic Committees and the IOC; who support millions of athletes and support personnel across the world. By raising awareness of the barriers to reporting, direct action has been taken amongst national anti-doping organisations. For example, LBU research has guided the education on whistleblowing within Doping Authority Netherlands "Gold" education programme [D]. UKAD acknowledged, as a consequence of LBU research, that *"there are longer-term issues around people in sport not knowing how to report, and what to report, so that's why we're launching this campaign [Protect Your Sport]"* [J]. The Protect Your Sport campaign addresses some of the barriers LBU research evidenced by highlighting the various ways an athlete, coach or anyone with a suspicion that something's not right can share that information and intelligence. It also emphasises the need for collective action to protect sporting integrity and athlete welfare, representing a significant shift in attitude, policy and practice from the established individual athlete responsibility and "catch the cheats" approach.

5. Sources to corroborate the impact (indicative maximum of 10 references)

- [A] Testimonial from former Deputy Director General of the World Anti-Doping Agency.
- [B] Testimonial from former Anti-Doping Education and Research Manager at Sport Ireland.
- [C] Testimonial from the Director of Prevention & Public Health at Anti-Doping Norway.
- [D] Testimonial from Director of Prevention at the Netherlands Anti-Doping Organisation
- [E] World Anti-Doping Agency Parent Education Programme based on LBU research.
<https://www.wada-ama.org/en/media/news/2017-08/wada-publishes-new-education-tool-parents-guide-to-support-clean-sport>
- [F] Testimonial from the Anti-Doping Manager at World Rugby.
- [G] Testimonial from Anti-Doping & Illicit Drugs Programme Manager at Rugby Football Union and RFU Annual Anti-Doping Report (2016-17)
- [H] The United Nations Office on Drugs and Crime and International Olympic Committee Reporting Mechanisms in Sport - A Practical Guide for Development and Implementation.
https://www.unodc.org/documents/corruption/Publications/2019/19-09580_Reporting_Mechanisms_in_Sport_ebook.pdf
- [I] Testimonial from the Chair of UK Anti-Doping.
- [J] UK Anti-Doping Protect Your Sport Press Release <https://www.ukad.org.uk/news/ukad-launches-protect-your-sport-boost-intelligence-reports>