



# Coach Education:

Creating an Evidence-Based  
Clean Sport Curriculum for  
Coaches in the UK

September 2021

# Contents

---

<b>Executive Summary</b>	<b>3</b>
<b>Context</b>	<b>5</b>
<b>Research Evidence</b>	<b>6</b>
<b>The Survey</b>	<b>8</b>
<b>Key Findings of the Survey</b>	<b>9</b>
<b>Interviews with Focus Groups</b>	<b>14</b>
<b>Key Findings of Interviews</b>	<b>15</b>
<b>Recommendations for Future Clean Sport Education</b>	<b>16</b>
<b>References</b>	<b>20</b>

# Executive Summary

**UK Anti-Doping (UKAD) has identified coaches as a key influential group of individuals, who can perform clean sport behaviours on a day-to-day basis and thus protect athletes from committing an Anti-Doping Rule Violation (ADRV).**

Consequently, UKAD has engaged with the coaching community in several ways to date, including through the Coach Clean eLearning course. Building on the work already undertaken in this space, this project focuses on developing an overall curriculum that will enable coaches to best support their participants, catering for every level of coach in the UK coaching system.

Between January and March 2021, UKAD commissioned Leeds Beckett University to undertake a systematic consultation with a range of stakeholders using multiple research methods from the coaching sector. A wide range of perspectives were captured,

including the voices of coaches working in different contexts, with different levels of experience, qualifications and coaching status.

This approach enabled important stakeholders to contribute to the development of the curriculum from the outset, which has the potential to enhance community ownership and buy-in. The main sources of data included an online survey, focus groups and individual interviews, including coaches and National Anti-Doping Organisation (NADO) representatives.



## Key Findings

A total of 341 coaches responded to the survey. A wide range of age groups represented, with the majority of coaches being over 30 years of age (including n=198 + 140, males and females respectively; n=322 of White ethnicity with other ethnic groups represented including mixed/multiple, Black/African/Caribbean/Black British).

Further diversity in the sample was shown with over 50% of the sample having over 10 years of coaching experience whilst coaching status ranged from voluntary (40%) to full-time paid (32%). Though there was some variation in formal qualifications, half the coaches held a Level 2 coaching qualification with 50% of the coaches, and 56 different sports represented, including a range of disability sports.

Of the 341 coaches, 84 coaches had experienced clean sport education in the last 2 years. This was typically via UKAD's Coach Clean and Clean Sport Advisor eLearning courses or through education provided via a National Governing Body (NGB), in line with UKAD's clean sport curricula.

When coaches with no previous clean sport learning experiences were asked why, 76% of these coaches stated they were unaware of the courses available. Therefore, programme reach is conspicuously low amongst coaches. Some coaches also indicated that opportunities were not available (n=35) or were not relevant for their role (n=16), as well as reporting time limitation (n=9), financial barriers (n=5) as well as not being of interest to them (n=5).





## Recommendations

Half of the recommendations are quite ‘practical’ in nature, such as offering a variety of learning opportunities on a range of topics and enhancing accessibility of these. Whereas, the other half of the recommendations are more ‘philosophical’ in nature, paying consideration to how clean sport, including education, is perceived among the coaching community and how ‘buy in’ can be enhanced going forward.

Tailoring education experiences for coaches to their sport and level of athletes with whom they work is important to them. To facilitate this, there were strong calls for embedding clean sport education into NGB coaching qualifications. This would help mitigate the coaches’ feelings that clean sport education is ‘transactional’. It may also help to ensure that currently under-served groups like age-group/masters competition level coaches and community/participation-based coaches (i.e., coaches operating outside of the high-performance system), are offered opportunities to learn about the important role they play in creating a clean sport environment.

In terms of how clean sport education is framed, coaches suggested moving from compliance messaging to empowerment. Furthermore, coaches commented that a curiosity needs to be created around clean sport, the current barriers (feelings that it is not OK to talk about

this topic) need to be broken down and a community of practice forged.

Education should be ‘entertaining’, promoting and evoking emotion, and creating lasting memories. The offer of learning opportunities should be designed with the next generation of coaches in mind, utilising technology where possible. Furthermore, coaches proposed that campaigns and initiatives could be used to spark further interest.

In terms of content and delivery, coaches suggested that small pieces of information, provided frequently, would really help them digest this better. To further assist coaches in understanding the topic and its relevance to them, they asked for scenario-based learning using up-to-date examples and doping cases. Coaches emphasised the need for storytelling to bring this topic to life. This could include helping coaches to understand what places someone at risk, including social influences beyond sport

We would like to thank Dr Laurie Patterson from Leeds Beckett University for her technical expertise and Emma Brunning for coordinating the project on behalf of UKAD, as well as all participating coaches, UKAD National Trainers, Coach Developers and NADOs, for their involvement in the research project and their valuable contributions made throughout.





# Context

**Most anti-doping education, information and awareness efforts globally have been athlete-centred in their nature, with a pre-occupation on identifying and influencing the individual factors that impact decisions to dope. Yet, a substantial research evidence base signals that doping behaviours are influenced by a complex combination of individual, environmental (e.g. peers, club culture) and situational (e.g. injury, career transitions) factors<sup>1</sup>.**

Providing a basis for the current project, coaches have consistently been highlighted as a significant influence in relation to athletes' doping decisions<sup>2</sup>, as well as being identified as a key target influential group in the UKAD Education Strategy.

For coaches to successfully comply with these responsibilities and avoid ADRVs, they must be provided with learning opportunities by national and international anti-doping and sporting organisations<sup>3</sup>. UKAD has already identified the coach as a key role, who can perform and promote clean sport behaviours and thus, protect athletes from doping.

Consequently, UKAD has engaged with the coaching community in several ways, including through the eLearning course, Coach Clean. Building on the work already undertaken by UKAD, this project focused on developing a learning framework that will enable coaches to best support their participants, catering for every level of coach in the UK coaching system. The project primarily involved gathering data and insights from the coaching community, including sport coaches and coach developers. However, it is important to ground this research in the existing evidence base on coaches and clean sport.

Under anti-doping policy<sup>3</sup>, coaches are held to account through sanctions if they violate anti-doping rules. Furthermore, this key stakeholder group, as members of Athlete Support Personnel (ASP), are assigned specific anti-doping roles and responsibilities, which include:

- to be knowledgeable of and comply with all anti-doping policies and rules pursuant to the World Anti-Doping Code and which are applicable to them or the athletes whom they support
- to cooperate with the athlete testing programme
- to use their influence on athlete values and behaviours to foster anti-doping attitudes
- to disclose to their National Anti-Doping Organisation (NADO) and International Federation (IF) any decision by a non-signatory finding that they committed an ADRV removing the full term within the previous 10 years
- to cooperate with NADOs investigating anti-doping rule violations
- to not use or possess any prohibited substance or prohibited method without valid justification



# Research Evidence

## Historical experiences of anti-doping education

**A recent systematic review of coach anti-doping research<sup>4</sup> conducted between 1999 and 2019 located 38 studies. The three main areas that had been investigated among coaches were individual, environmental and behavioural factors.**

At an individual level, coaches were in support of anti-doping efforts (i.e. they saw doping as wrong/unethical and supported sanctions) and generally saw themselves as having an influence on their athletes in this area.

Despite this, some coaches did not see clean sport as part of their role, they thought that the risk of doping in their sport was low, and/or lacked confidence to be involved in anti-doping efforts. Potentially related to the lack of confidence, some coaches reported, or demonstrated, little knowledge of anti-doping topics, including specific processes, substances, and their policy-prescribed responsibilities.

Worryingly, low levels of anti-doping knowledge did not stop all coaches from providing athletes with advice on clean sport, which posed a significant risk to the athlete. Yet, beyond providing advice, many coaches did not engage in any clean sport behaviours.

Coaches reported that other support personnel, such as managers or medical staff, often took on clean sport responsibilities in their environment. In fact, only a handful of coaches have suggested they engage in any proactive anti-doping actions<sup>5</sup>. In addition to being driven by the internal psychological characteristics (including their beliefs and knowledge), coaches' behaviours [or lack thereof] are influenced by several layers of cultural context, e.g., their team, organisation, high-performance sport, nation/country. This cultural influence includes traditions, values, and beliefs about what is considered 'normal' or deemed acceptable.



# Current anti-doping education for coaches

Researchers<sup>6</sup> have previously emphasised the important role that clean sport education could play in addressing coaches' reticence to engage pro-actively in clean sport actions. Yet, there are no central public records of programmes that have been developed and implemented by national and international anti-doping, sporting, or coaching organisations.

Therefore, little is known about the anti-doping education being delivered across nations and sports. One study that addressed this<sup>7</sup>, interviewed individuals responsible for clean sport education for coaches within national and international anti-doping and sporting organisations, to gauge current practice and contextual constraints. This research indicated that much of the clean sport education available to coaches was delivered as a "one size fits all", with many coaches being restricted to content created for athletes. It also revealed that programmes are not typically evidence-informed, and content is dominated with compliance-based information.

This was disappointing given that the importance of tailored and targeted clean sport learning opportunities has been signalled previously<sup>8</sup>. Consequently, the authors concluded there was a need for coach-centred programmes that follow a progressive curriculum, whereby content suits a coach's context (i.e. sport, experience, age/stage of athlete)<sup>8</sup>. They recommended a multi-faceted approach whereby clean sport was embedded into broader coach education and development programmes, framed as part of their overall role to protect the health and well-being of athletes alongside developing athletic performance. Specifically, they suggested connecting clean sport to a range of topics, such as injury prevention, mental health, nutrition, and ethics.

While limited research is available on coaches' experiences and opinions towards clean sport education, a study conducted in the UK<sup>8</sup> corroborates the need for greater tailoring and integration. Making clean sport a compulsory part of coach education would address the issue of low awareness of programmes and reliance on self-directed learning (e.g. searching the internet) that was demonstrated among some coaches<sup>6</sup>. Furthermore, tailoring education would help tackle the lack of engagement that was identified<sup>9</sup>.

Coaches working in performance contexts (e.g., talent, performance, high performance) were more likely to have learned about anti-doping than those operating in participation sport (e.g. children, adolescents, adults). Corroborating the coach educators' view, coaches who had learned about anti-doping (across any contexts) had predominantly been exposed to compliance-based (or 'detection-deterrence') topics, such as the prohibited list, doping control processes and consequences of doping.

Despite this, it was positive to find that individuals who had learned about anti-doping rated themselves as better equipped, perceived themselves to be more knowledgeable (i.e. gave higher ratings of self-perceived knowledge) and their motivation was greater to learn about anti-doping in the future than those who had not. Therefore, the authors concluded that some education is better than none.





# The Survey

**The survey comprised 22 questions gathering demographic information alongside their experiences of clean sport education and other doping-related matters and their preferences for such education.**

Over the course of this consultation period, n=341 coaches responded to the survey. A wide range of age groups represented, with the majority of coaches being over 30 years of age (including n=198 + 140, males and

females respectively; n=322 of White ethnicity with other ethnic groups represented including mixed/multiple, Black/African/Caribbean/Black British).

Further diversity in the sample was shown with over 50% of the sample having over 10 years of coaching experience whilst coaching status ranged from voluntary (40%) to full-time paid (32%). Though there was some variation in formal qualifications, half the coaches held a Level 2 coaching qualification, with 56 different sports represented, including a range of disability sports.

**Judo • Short Track Speed Skating • Rugby Union  
Rugby League • Cycling • Tennis • Wrestling  
Hockey • Triathlon • Ice Skating • Trampolining  
Figure Skating • Rowing • Sailing • Windsurfing  
Archery • Football • Fitness • Dinghy Sailing  
Kayaking • Ice Dance • American Football  
Running • Athletics • Climbing • Swimming**

Variables	Number	Percentage
Level of athlete (n=341)		
Children/School Sport	172	50.4
Recreational	223	65.4
High-performing age group	137	40.2
Talent	129	37.8
National	98	38.7
Elite	65	19.1
Other	13	3.8

**Table 1.** Coach, sport and level of athlete.

Coach responses demonstrated they worked with athletes at a range of levels, varying from Children/ School Sport (n=172) to Elite (n=65) with Recreational (n=223) being the most common. Other responses included disability contexts (n=3).

# Key Findings of the Survey

## Coaches with previous clean sport learning experiences

84 coaches had experienced clean sport education. Figure 1 shows that this was typically UKAD's Coach Clean and Clean Sport Advisor eLearning courses or education provided via an NGB, in line with UKADs

clean sport curricula; corroborating these findings, Figure 2 confirms that eLearning and face-to-face delivery methods were the most common way of accessing clean sport education<sup>1</sup>.

Figure 1. Clean sport education received to date.

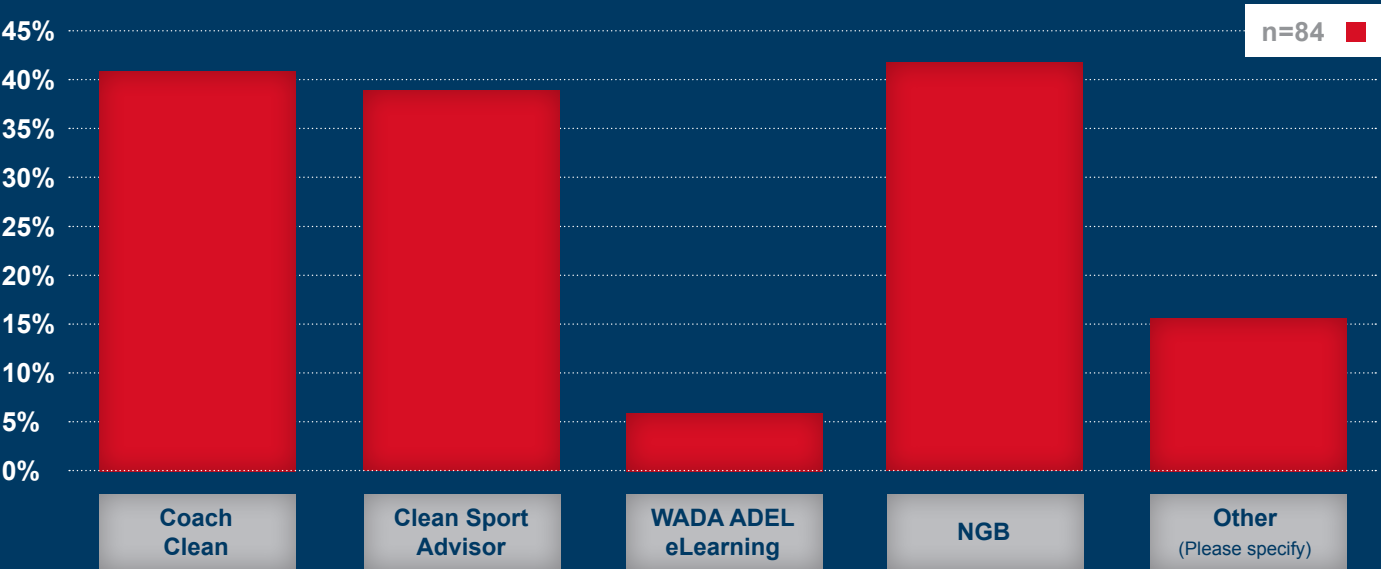


Figure 2. Delivery methods of clean sport education received to date.



42%



24%



65%



Figure 3 provides a summary of the main points raised by coaches (n=85) when they reflected on the pros and cons of their clean sport education experiences. Upon evaluation of these responses, although well-presented and purposeful for this group, refinements are required to existing education activities in order to make the coach experience of clean sport education wholly positive and encompassing.

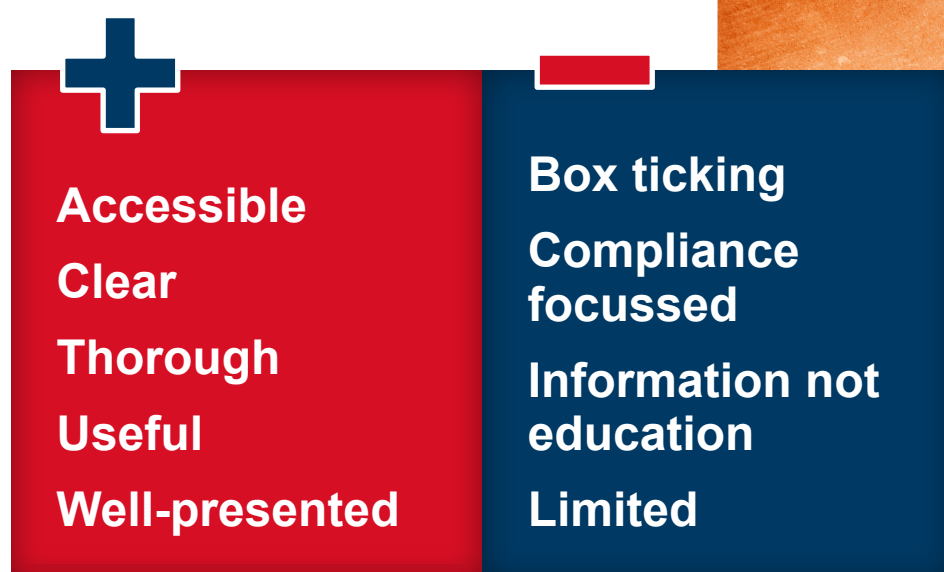


Figure 3. Pros and cons of coaches' previous clean sport education experiences.

## Coaches with no previous clean sport learning experiences

When asked why, over three quarters (n=147, 76%) of these coaches stated they were unaware of the courses available. Therefore, programme reach is conspicuously low amongst coaches. Some coaches also indicated that opportunities were not available (n=35) or were not relevant for their role (n=16), as well as reporting time limitation (n=9), financial barriers (n=5) and no interest 10 = (n=5)<sup>10</sup>.

***One of the most significant findings from the survey was that 71% of the coaches had not experienced clean sport education in the last two years.***

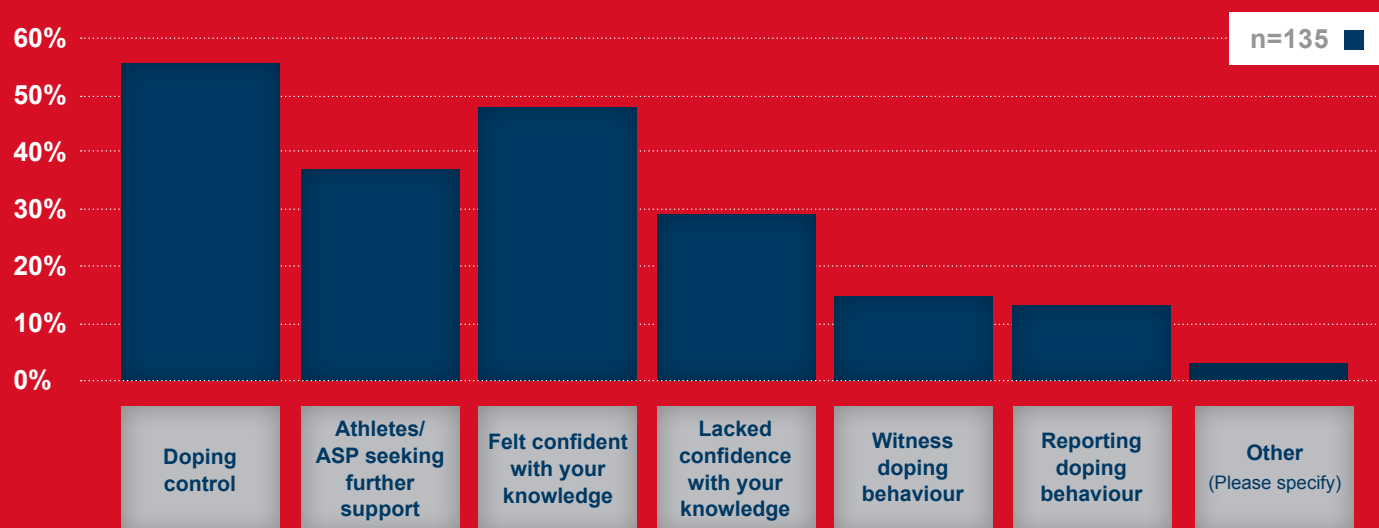


# Coaches' experiences of doping-related situations sport learning experiences

Figure 4 demonstrates that several coaches had experience across a range of situations, including doping control, feeling confident in their knowledge and

athletes/ASP seeking support or information from them<sup>1</sup>.

Figure 4. Experiences related to clean sport or doping.



Some coaches (n=42) provided further details of their individual experiences, with comments including doping control (n=24), supplement contamination (n=4), long term health issues with athletes from doping (n=4), the use of Performance Enhancing Drugs (n=3), accidental doping (n=3), use of cannabis (n=3), as well as athletes who went on to be coached by someone that used to dope (n=1).

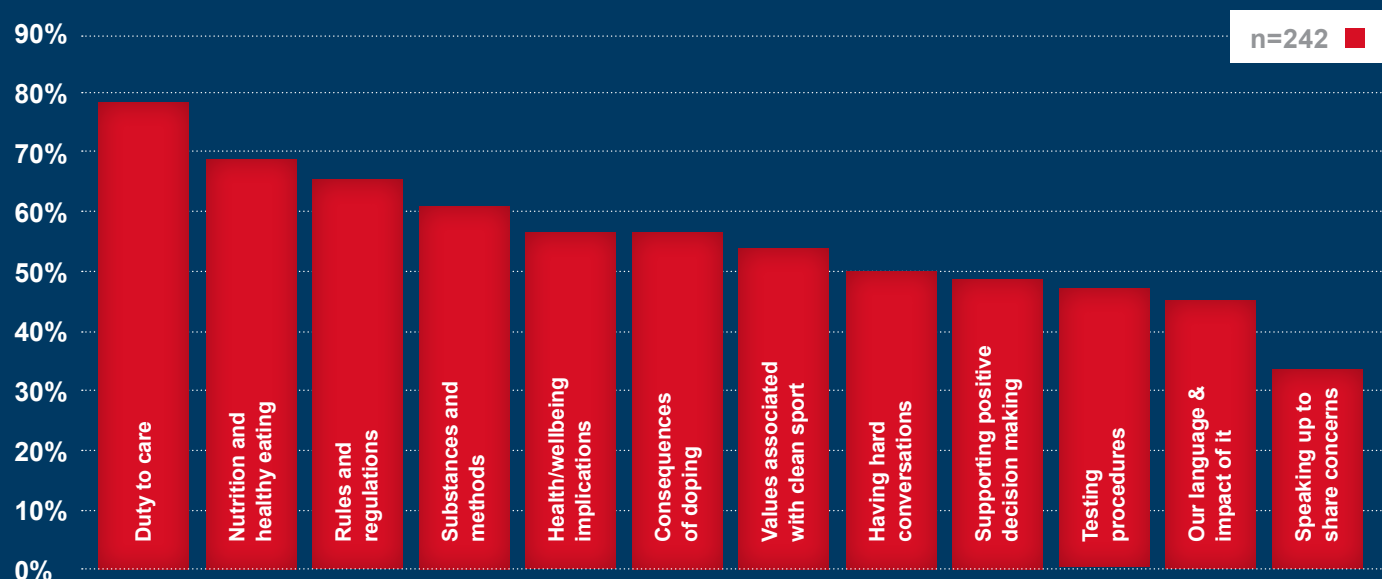
***A larger proportion of coaches had experiences of doping-related situations than had experienced education, meaning they are potentially ill-prepared to offer accurate advice and guidance to their athletes.***

# Coaches' recommendations for future clean sport education

Thinking to the future, coaches identified several education experiences that would be helpful to their role. Figure 5 demonstrates that these predominantly related to duty to care and nutrition (supporting healthy eating), followed by some of the traditional detection-

deterrence topics (i.e., rules and regulations, Prohibited List, consequences).

Figure 5. Clean sport topics coaches would like to learn about.



For delivery methods, coaches (n=249) called for a range of activities, with eLearning, in-person opportunities and through NGB education and development qualifications being most popular; as shown in Figure 6.

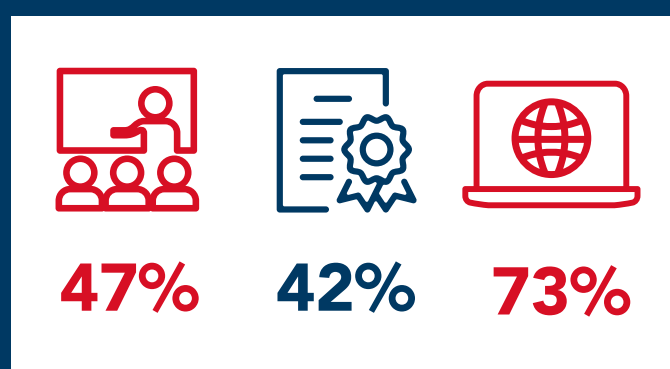


Figure 6. Delivery methods of clean sport education received to date.

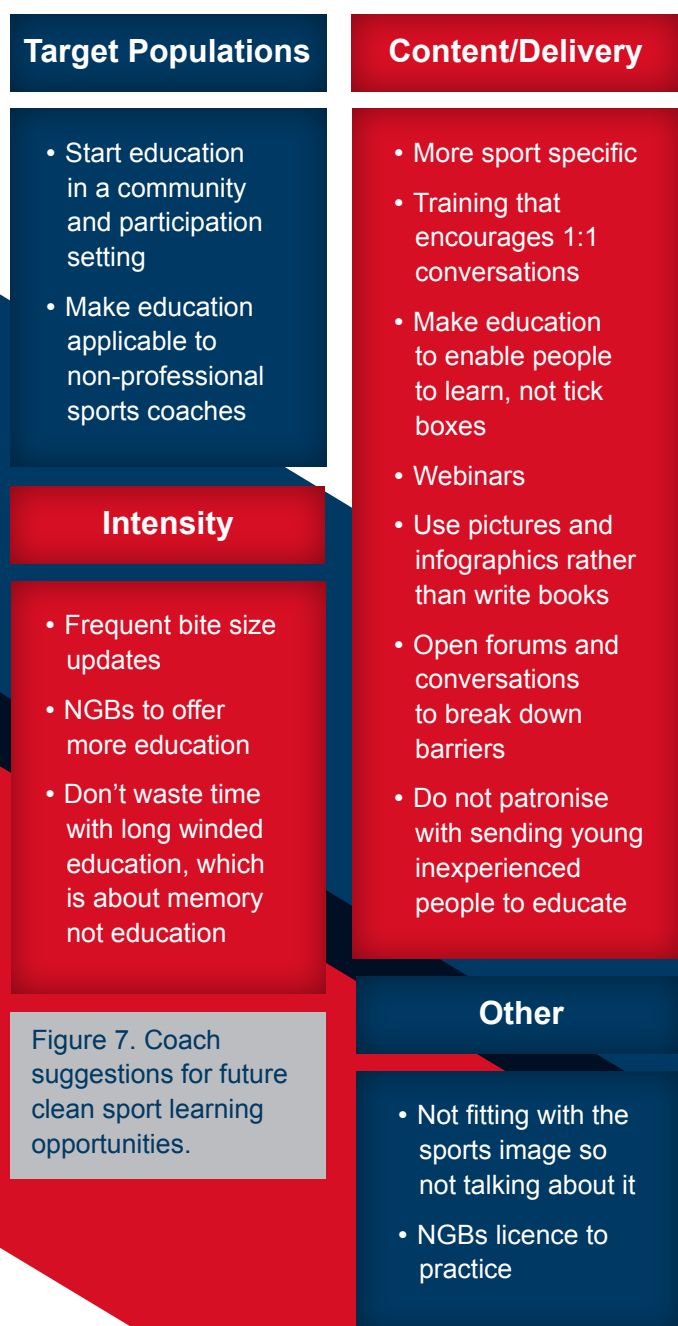


Methods receiving support from around a third of the coaches were electronic materials (e.g. e-newsletter, emails and videos, n=87, 35%), online gamification/ scenario-based learning (n=73, 29%) and printed materials (e.g. printed posters, leaflets, n=64, 26%).

Coaches had mixed views on how frequent their learning should be, calling for learning opportunities to be provided every year (n=71, 30%), whenever there are

updates (n=66, 28%), every two years (n=40, 17%), on National Governing Body awards (n=37, 15%) and twice per year (n=18, 8%)<sup>1</sup>.

When given the opportunity to provide further comments they feel may be useful for UKAD to consider, coaches (n=33) raised a range of points related to target groups, intensity, content/delivery, or other matters (Figure 7).





# Interviews and Focus Groups

**Semi-structured individual interviews and focus groups were conducted with coaches virtually, again gathering demographic information as well as experiences of clean sport education and other doping-related matters and their preferences for such education.**

Interviewees (male n=5 and female n=7) were from a range of roles, including individuals in positions to embed clean sport coach education into organisations (n=5), such as coach education leads from professional/sporting bodies, as well as coaches (n=4, and University Lecturers in the field of Sport Coaching (n=3).

The focus groups comprised 19 participants (n=10 male and n=9 female). Four focus groups were conducted with coaches from high performance (n=4, four males and one female), the talent pathway (n=4, one male and three females), participation (n=5, two males and three females), and children and young people (n=1 female).

A further focus group was conducted with UKAD Accredited Clean Sport Educators and National Trainers (n=5, four males and one female) to ascertain their experiences of educating coaches and their perspectives regarding what could work in the future in terms of clean sport education with this group.





# Key Findings of the Interviews

## Previous clean sport learning experiences

Previous clean sport experiences had been predominantly online via eLearning. As shown in Figure 8, feedback from coaches was mixed with positive feedback balanced with some areas for development to ensure clean sport education for coaches is better tailored in the future.

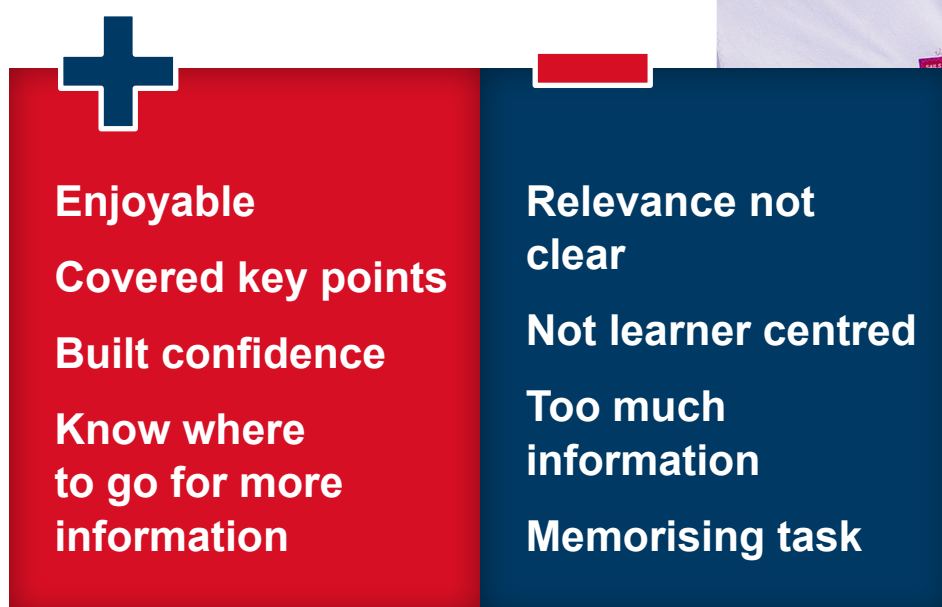


Figure 8. Pros and cons of coaches' previous clean sport education experiences.

An in-depth breakdown of the feedback from these focus groups disclosed that often, clean sport education was a stand-alone discrete element, rather than being integrated into a course and therefore, the relevance of it to the coaches' role, context or environment was not obvious. Coaches called for organisations to think carefully about what is 'need to know' and what is 'nice to know'.

For instance, assessing coaches on if they can remember the exact length of a ban per violation felt unnecessary; rather, they felt they could simply know that bans can occur. It is possible that some 'basics' are missed, to the point where coaches might not be aware of what doping actually is or situations they should be concerned about, e.g. consumption of certain products that could be contaminated.

Some coaches did not have any clean sport education (particularly the participation and young people groups). These coaches, as well as others, commented that there was a lack of awareness as to how to find clean sport education opportunities, whilst coaches operating in high performance sport seemed to have had positive clean sport education experiences by attending sessions targeted at their athletes. Therefore, there are differences in clean sport education experiences across coaching contexts.

# Recommendations for Future Clean Sport Education

Coaches talked a lot about each coach being unique, meaning that tailoring education experiences to their sport and level of athletes with whom they work is important to them. To facilitate this, there were strong calls for embedding clean sport education into NGB coaching qualifications. This would help mitigate the coaches' feelings that clean sport education is 'transactional'.

It may also help to ensure that currently under-served groups – like age-group/masters competition level coaches and community/participation-based coaches (i.e. coaches operating outside of the high-performance system), are offered opportunities to learn about the important role they play in creating a clean sport environment. This would be especially true if coaches' recommendations to embed clean sport from early in the coaching journey are acted upon. Here, some coaches suggested 'wrapping' clean sport education within values.

***Coaches suggested UKAD must work closely with NGBs to ensure that clean sport feels like part of every-day practice, integrated into the 'fabric' of coaching.***

In terms of how clean sport education is framed, coaches suggested moving from compliance messaging to empowerment. Furthermore, coaches commented that a curiosity needs to be created around clean sport, the current barriers [feelings that it is not OK to talk about this topic] need to be broken down and a community of practice forged.

Education should be 'entertainment', promoting and evoking emotion, and creating lasting memories. The offer of learning opportunities should be designed with the next generation of coaches in mind, utilising technology where possible. Furthermore, coaches proposed that campaigns and initiatives could be used to spark further interest.

***Curiosity in and creating 'comfort' with clean sport must be provoked through regular, bite sized, interactive learning opportunities.***

In terms of content and delivery, coaches suggested that small pieces of information, provided frequently, would really help them digest this. To further assist coaches in understanding the topic and its relevance to them, they asked for scenario-based learning using up-to-date examples and doping cases. Coaches emphasised the need for storytelling to bring this topic to life. This could include helping coaches to understand what places someone at risk, including social influences beyond sport.





# Methods of improving existing clean sport coach education

Thinking about how to enhance clean sport education in the future, coaches were supportive of integration within mandatory education (coach qualification system). They called for this to comprise multiple methods and styles of delivery (i.e., formal, informal and non-formal), including interactive learning opportunities that facilitate not only understanding, but also their skills and confidence in applying what they have learned in practice. Specifically, coaches wanted to debate, discuss and share 'good practice' in relation to real, sport-specific cases and scenarios.

They emphasised that anti-doping can be difficult to keep up to date with, due to its ever-changing and complex nature. Therefore, coaches recommended regular learning episodes each being short and covering fundamentals, with signposting for those who wish to delve deeper into a topic.

Notably, coaches preferred learning opportunities to be provided by NGBs above other organisations (e.g., UKAD, WADA, IFs). However, individuals responsible for clean sport education in these organisations described how challenging it can be for them to provide learning opportunities for coaches due to limited resource<sup>8</sup>.

Coach education system builders and Anti-Doping Leads typically have multiple responsibilities within their NGB, which leaves them with limited time (or expertise) to invest in developing clean sport programmes for coaches. Because of this, stakeholders praised

UKAD for the support they provide in helping organisations to develop their provision. This signals that UKAD's conscious effort to take more of an enabling role with sports to help them deliver had some impact at this level.

NGBs suggested that they could be supported further in the future by UKAD facilitating greater communication between NGBs to learn from one another and share 'good' practice. Another key challenge facing NGBs is the lack of 'buy-in' from several levels of the sport, e.g., from decision-makers/ budget holders to coaches on the ground<sup>8</sup>. Clean Sport Educators reported that the individuals 'above' the coach need to care for the coaches to care.

They suggested that this will remain a challenge until clean sport is recognised in the key performance indicators (KPI) of an organisation. Yet, they emphasised that any 'requirements' that might be introduced should not be too strictly prescribed because it will lead to people "*putting their barriers up*". Furthermore, it was found that organisations being only compliance-driven was not deemed helpful; instead, influential individuals within organisation must truly value clean sport efforts and see them as relevant and important to coaches (and others in their context).

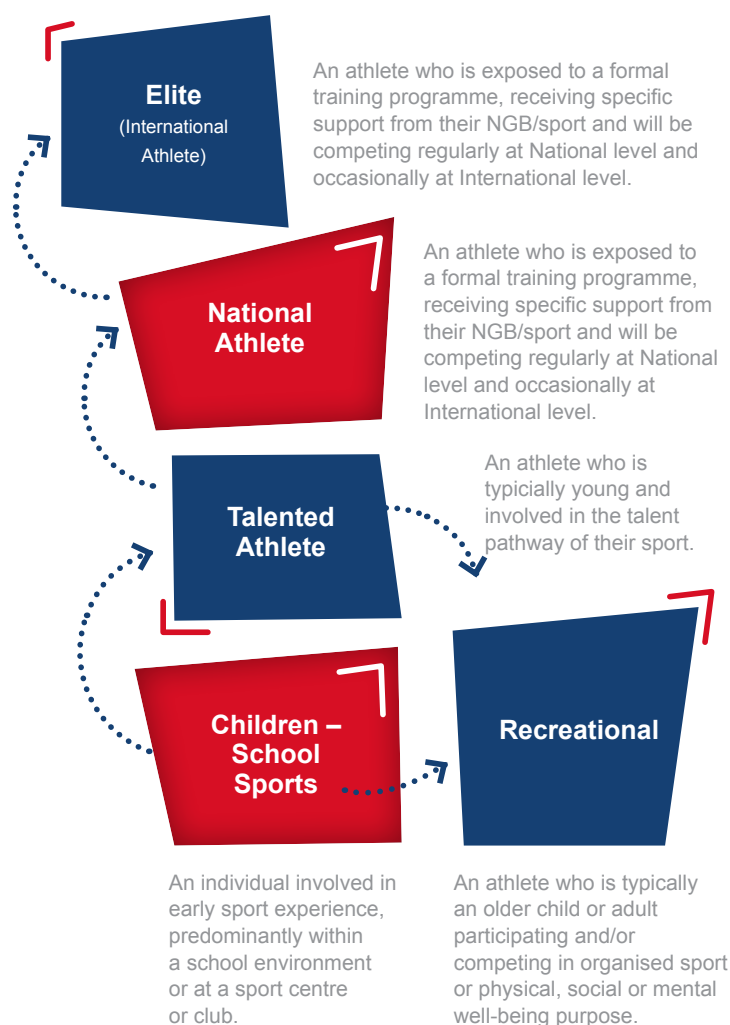


## Existing UKAD curricula

In addition to considering the current project in relation to existing research, it is important to acknowledge how the clean sport coach curriculum will complement other existing clean sport curricula created by UKAD. Both the athlete and parent curricula have been reviewed ahead of conducting data collection, and the UKAD athlete pathway (Figure 9) informed the population of coaches to be recruited. Specifically, coaches working with athletes at all stages of development were sought, from Children/ School Sport to elite/international.

Looking ahead to drafting a clean sport curriculum for coaches, this will be mapped to those topics featured in the athlete curriculum. Furthermore, the strategies for applying behavioural science to clean sport education featuring in both the athlete and parent curricula will also be considered.

Figure 9. UKADs athlete pathway model



Findings from the systematic consultation consistently aligned with previous research. For example, there was stakeholder agreement on the need for coach-centred, multi-method programmes that are embedded in the broader education and development of coaches.

Furthermore, there were calls for short or easy pieces of clean sport education to be provided on a range of topics that are specific to anti-doping (e.g. substances) and more general to coaching (e.g. duty of care). Lastly, importance was placed on learning opportunities being relevant and real (i.e. contextualised to sport, coaching experience, level of athletes), as well as interactive and engaging (e.g. use of scenarios, facilitated discussion).



Figure 10 brings together the insights gleaned from multiple stakeholder groups across the three methods of data collection, with existing research and curricula to provide six important considerations for the ongoing development of the clean sport curriculum for coaches.

Half of the recommendations are quite ‘practical’ in nature, such as offering a variety of learning opportunities on a range of topics and enhancing

accessibility of these. Whereas, the other half of the recommendations are more ‘philosophical’ in nature, paying consideration to how clean sport, including education, is perceived among the coaching community and how ‘buy in’ can be enhanced going forward.

Figure 10. Recommendations to consider for the clean sport coach curriculum





# References

- <sup>1</sup> Backhouse, S. H., Whitaker, L., Patterson, L., Erickson, K., & McKenna, J. (2016). Social psychology of doping in sport: A mixed-studies narrative synthesis. Montreal, Canada: World Anti-Doping Agency. Retrieved from: [https://www.wada-ama.org/sites/default/files/resources/files/literature\\_review\\_update\\_final\\_2016.pdf](https://www.wada-ama.org/sites/default/files/resources/files/literature_review_update_final_2016.pdf)
- <sup>2</sup> McLaren, R. (2016). The Independent Person 2nd Report. Commissioned Report for the World Anti-Doping Agency. Retrieved 27th November 2017, Retrieved from <https://www.wada-ama.org/en/resources/doping-control-process/mclaren-independent-investigation-report-part-ii>
- <sup>3</sup> World Anti-Doping Agency [WADA] (2021). World Anti-Doping Code 2021. Retrieved from: [https://www.wada-ama.org/sites/default/files/resources/files/2021\\_wada\\_code.pdf](https://www.wada-ama.org/sites/default/files/resources/files/2021_wada_code.pdf)
- <sup>4</sup> Barnes, L. T., Patterson, L. B., & Backhouse, S. H. (2020). A systematic review of research into coach perspectives and behaviours regarding doping and anti-doping. *Psychology of Sport and Exercise*, 101780.
- <sup>5</sup> Allen, J., Morris, R., Dimeo, P., & Robinson, L. (2017). Precipitating or prohibiting factor: Coaches' perceptions of their role and actions in anti-doping. *International Journal of Sports Science and Coaching*, 12(5), 577-587. DOI: 10.1177/1747954117727653
- <sup>6</sup> Patterson, L. B., & Backhouse, S. H. (2018). "An important cog in the wheel", but not the driver: Coaches' perceptions of their role in doping prevention. *Psychology of Sport and Exercise*, 37, 117-127.
- <sup>7</sup> Patterson, L. B., Backhouse, S. H., & Duffy, P. J. (2016). Anti-doping education for coaches: qualitative insights from national and international sporting and anti-doping organisations. *Sport Management Review*, 19(1), 35-47.
- <sup>8</sup> Backhouse, S. H., McKenna, J & Patterson, L (2009) Prevention through education: A review of current international social science literature: A focus on the prevention of bullying, tobacco, alcohol and social drug use in children, adolescents, and young adults. Project Report. World Anti-Doping Agency. Retrieved from: [https://www.wada-ama.org/sites/default/files/resources/files/backhouse\\_prevention\\_through\\_education\\_final\\_2009.pdf](https://www.wada-ama.org/sites/default/files/resources/files/backhouse_prevention_through_education_final_2009.pdf)
- <sup>9</sup> Patterson, L. B., Backhouse, S. H., & Lara-Bercial, S. (2019). Examining coaches' experiences and opinions of anti-doping education. *International Sport Coaching Journal*, 6(2), 145-159.
- <sup>10</sup> Patterson, L. B., Duffy, P. J., & Backhouse, S. H. (2014). Are coaches anti-doping? Exploring issues of engagement with education and research. *Substance Use & Misuse*, 49(9), 1182-1185.





**Email:** [ukad@ukad.org.uk](mailto:ukad@ukad.org.uk)

**Website:** [www.ukad.org.uk](http://www.ukad.org.uk)

[@ukantidoping](#) [#cleansport](#)

Company no. 6990867  
© UK Anti-Doping 2021