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“An important cog in the wheel”, but not the driver: Coaches’ perceptions of their role in  
doping prevention

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**Abstract**

*Objectives:* Under the World Anti-Doping Code coaches have designated anti-doping roles and responsibilities. Yet, their experiences, opinions and behaviours in relation to these expectations are poorly understood. This study responds directly to this absence of evidence in order to move the field forward.

*Design:* A qualitative thematic analysis approach.

*Method:* Twelve football and rugby league coaches, working in a performance development context, took part in semi-structured interviews to explore their (anti-)doping experiences, opinions and behaviours. Nine coaches participated in follow-up interviews where particular attention was paid to existing anti-doping policy directives. All interviews were analysed using inductive thematic analysis.

*Results:* Coaches were supportive of anti-doping efforts and exerted their influence by monitoring, giving advice and creating the 'right' culture. Performance prioritisation rendered coaches reluctant to engage proactively in addressing anti-doping in their practice; a situation exacerbated by a lack of self-efficacy to advise/act in accordance with the rules. Consequently, coaches tended to rely on others (both internally and externally to their club) to provide anti-doping support, and anti-doping is deemed unnecessary/irrelevant. Critically, coaches' current behaviours were not driven by policy, as they were unaware of expectations and consequences outlined in the Code.

*Conclusions:* Coaches are willing to support anti-doping efforts, but are generally passive in their everyday practice. The gulf between anti-doping policy and coaching practice raises cause for concern for anti-doping policy makers. To bridge this gap systematic programming of activities designed to ensure coaches are able and willing to take a proactive role in doping prevention is required.

*Keywords:* anti-doping; coaching; drugs; education; policy; practice

**51 1. Introduction**

52           The use of prohibited substances and methods in sport ('doping') is not restricted to  
53 high performance sport; doping is evident at 'lower' levels of competition and at foundational  
54 stages of athlete development (see Backhouse, Whitaker, Patterson, Erickson & McKenna,  
55 2016). Consequently, efforts to detect and deter doping continue at pace and in recent years,  
56 social science research has played an increasingly prominent role in developing our  
57 understanding of the underlying mechanisms associated with doping (Backhouse et al., 2016).  
58 Such research indicates that a complex combination of factors can affect athlete doping  
59 behaviours (Backhouse, Griffiths & McKenna, 2017). Notably, the focus of research has  
60 shifted from a concentration on individual factors (e.g., attitudes and knowledge) to  
61 acknowledging the significance of contextual factors (e.g., sport culture, career transitions,  
62 injury) (e.g., Smith et al., 2010).

63           The acceptance of doping as a complex behaviour has highlighted the importance of  
64 social and cultural influences on doping in sport (e.g., significant others) (Backhouse et al.,  
65 2016). In particular, the coach has been anecdotally, theoretically and empirically verified as a  
66 'significant other' and over many decades has been found to play an instrumental role in a  
67 number of doping incidents. This is not surprising given the amount of time coaches and  
68 athletes spend together (Jackson, Grove & Beauchamp, 2010) and the mutual interdependence  
69 of athletes' and coaches' thoughts, feelings and behaviours (Jowett & Poczwardowski, 2007).  
70 This interdependence ranges from covering up and condoning doping behaviour to supplying  
71 and administering doping substances (Dubin, 1990; Ungerleider, 2001, McLaren, 2016). On  
72 the other hand, coaches have been shown to be a significant protective factor against doping  
73 (e.g., Goulet, Valois, Buist & Cote, 2010). For example, athletes have reported that protection  
74 from doping is provided through secure attachments to coaches, whereby athletes have trust  
75 and confidence in their coach, who is perceived as providing continued support and guidance

76 (Erickson et al., 2015). Specifically, athletes are inspired to invest effort and commit to their  
77 sport – doing so in a drug-free way – in order to repay the coaches for their effort and  
78 commitment to them. The protective influence of coaches was also articulated in a study  
79 involving five admitted dopers (Kirby, Moran & Guerin, 2011), as one of the dopers described  
80 his coach as an important factor in why he had remained drug free for so long. In particular,  
81 the athlete had been influenced by the coach’s ‘anti-drugs’ attitude and his beliefs that doping  
82 was not necessary, with the authors concluding that the coach was acting as a positive role  
83 model and mentor. However, the athlete went on to say that when they moved into a new  
84 training group with a new coach they began to dope almost immediately; bringing both the  
85 protective and injurious impact of the coach on doping into sharp focus.

86 Coach influence has been formally recognised in global anti-doping and coaching  
87 policy. For example, it is explicit in the World Anti-Doping Code (WADC, Article 21.2)  
88 (WADA, 2015) and reinforced in the International Sport Coaching Framework (ISCF) (ICCE,  
89 ASOIF & LMU, 2013). In both cases, coaches are expected to comply with anti-doping  
90 regulations and foster anti-doping attitudes among their athletes. Though, the policy document  
91 offers little explanation as to how coaches might do so. It is made clear that coaches are subject  
92 to sanctions if they engage in behaviours that violate anti-doping policy, such as assisting,  
93 encouraging, aiding, abetting or covering up the use of prohibited substances or methods, as  
94 well as use, possession, administration, attempted administration, trafficking or attempted  
95 trafficking of prohibited substances or methods (WADA, 2015). In the UK, these rules were  
96 recently applied in the case of coach George Skafidas, who received a lifetime ban for  
97 committing nine anti-doping rule violations (ADRVs) including possession, trafficking,  
98 administering and tampering (through provision of false information and intervening a letter  
99 addressed to one of his athletes regarding anti-doping proceedings) (*UK Anti-Doping vs*  
100 *Skafidas NADP Decision 392, 2016*).

101 In view of the expectations outlined in both coaching and anti-doping policy, it is  
102 imperative that we develop our understanding of the doping-related interactions that take place  
103 between coaches and sportspeople. While some studies conclude that the majority of coaches  
104 discuss doping (Engelberg, Moston & Blank, 2017), including the negative health effects  
105 (Vankhaldo & Planida, 2013), with their athletes, studies also suggest that doping-related  
106 interactions are infrequent (Laure, Thouvenin & Lecerf, 2001; Mazanov, Backhouse, Connor,  
107 Hemphill & Quirk, 2014) (i.e., two to three times per year; Engelberg et al., 2017). While the  
108 evidence base regarding coaches and their doping-related attitudes and knowledge has grown  
109 over the past ten years (see Backhouse, McKenna Robinson & Atkin, 2007 and Backhouse et  
110 al., 2016), the focus of research has been on examining coaches' doping-related attitudes and  
111 knowledge. This has led to the conclusion that coaches have anti-doping attitudes (e.g., Sajber,  
112 Rodek, Escalante, Olujić & Sekulic, 2013; Allen, Morris, Dimeo & Robinson, 2017; Engelberg  
113 & Moston, 2016) and acknowledge their influence in doping prevention (e.g., Laure et al.,  
114 2001; Judge, Bellar, Petersen, Gilreath & Wanless, 2010; Nicholls, Perry, Levy & Thompson,  
115 2015). However, they have, or perceive themselves to have, only low to average knowledge of  
116 doping-related topics (e.g., Mazanov et al., 2014; Rodek, Sekulic & Kondric, 2012; Vankhaldo  
117 & Planida, 2013).

118 Currently there is little understanding of what coaches do (i.e., their behaviours) and  
119 why they do it (i.e., reasons/influences) in the context of doping prevention. Most recently,  
120 Allen and colleagues (2017) found that Scottish high-performance coaches could be  
121 categorised as those who appreciate the issue of doping (n=6) and those who do not see doping  
122 as a problem (n=17). The coaches who do not see doping as a problem rationalised this view  
123 through a belief that their athletes were 'safe', and this perception elicited a degree of  
124 complacency. However, the threat of inadvertent doping (i.e., through the use of medications  
125 and nutritional supplements) was acknowledged by all coaches. Allen et al. (2017) noted that

126 the coaches' role in doping prevention was influenced by a number of individual (e.g., clean  
127 sport values and knowledge) and situational (e.g., Scottish/British sporting culture and  
128 perceived potential for athletes to benefit from doping) factors.

129 These insights serve as a solid foundation for developing a greater understanding of  
130 coaches' roles in doping prevention. Yet, there remains an urgent need to increase research  
131 efforts with coaches in order to gain a more nuanced and in-depth understanding of the nature  
132 of their interactions with sportspeople. Specifically, who is involved, how frequently  
133 exchanges occur, and with what intentions and impact on future behaviours. Such research will  
134 assist in the development of evidence-informed interventions that are targeted at coaches, and  
135 tailored towards their needs (Backhouse & McKenna, 2012). Therefore, the purpose of the  
136 present study was to give a voice to this key group of support personnel by exploring coaches'  
137 roles in anti-doping, including what behaviours they undertake and what factors influence these  
138 behaviours. With regard to influential factors, the current study specifically explored coaches'  
139 awareness and fulfilment of global anti-doping roles and responsibilities under the World Anti-  
140 Doping Code in order to elicit how policy impacts practice in this domain.

141

## 142 **2. Method**

### 143 *2.1 Philosophical underpinnings*

144 Situated within an interpretive paradigm, this study was informed by our relativist  
145 ontology and constructionist epistemology (Sparkes & Smith, 2014). We align with the view  
146 that reality is socially and experientially influenced and shaped; through the research process  
147 the findings are co-created through our interactions with the coaches participating in the study  
148 (Guba & Lincoln, 1994). As reflexive researcher-practitioners, the dynamics of this  
149 relationship is informed by our autobiographies, values and beliefs. In addition to researching  
150 doping in sport from multiple stakeholder perspectives for well over a decade, both authors are

151 involved in the design and delivery of anti-doping education. Therefore, they engage with  
152 coaches on a regular basis and have the lived experience of applying current anti-doping rules  
153 and regulations in practice. They have also carried out doping control at several major sporting  
154 events and this has given them insights into the broader anti-doping system and its impact on  
155 stakeholders. The reflexivity of this research team is also enriched by their athletic histories.  
156 For XX this includes past relationships with an athlete who served a period of ineligibility from  
157 their sport due to doping, and a personal coach who routinely professed that you cannot succeed  
158 in sport at the highest levels without doping.

159

### 160 *2.2 Participants*

161 Twelve coaches from Football (n=6) and Rugby League (n=6) were recruited via  
162 purposeful sampling. They worked in academies and scholarship programmes of  
163 professional/semi-professional clubs, representing the top three domestic leagues in England  
164 (e.g., Super League to Championship 1 in Rugby League and Premier League to League 1 in  
165 Football). Therefore, coaches worked with players aged 15 to 23 years who were “emerging”  
166 due to their increased commitment to one sport (ICCE & ASOIF, 2012). Sportspeople within  
167 this domain are likely going through key stages of moral development (Damon, 2004) and may  
168 be vulnerable to doping due to wanting to progress to high-performance sport (e.g., Mazanov,  
169 Huybers & Connor, 2011; Whitaker, Long, Petroczi & Backhouse, 2014). Furthermore,  
170 coaches from Football and Rugby League were targeted because both sports featured in the top  
171 three sports for ADRVs in the UK at the time of conducting the study. Therefore, it was  
172 anticipated that coaches working in this context (i.e., these sports, at this stage of athlete  
173 development/level of competition) might be experiencing doping-related interactions in their  
174 practice and/or might be more likely to be undertaking actions to prevent doping; thus, they  
175 would be well-positioned to offer insights relevant to the study aim of exploring coaches’ roles



176 in anti-doping, including what behaviours they undertake and what factors influence these  
177 behaviours, in line with the purposeful sampling approach.

178 All coaches were male and aged between 27 and 54 years. Coaches' experience ranged  
179 from being in their first season to 15+ years. All coaches held or were working towards  
180 coaching qualifications equivalent to UKCC Level 2 or above. Specifically, Football coaches  
181 held or were currently working towards UEFA A ( $n=4$ ) and Pro Licences ( $n=2$ ) and Rugby  
182 League coaches held ( $n=5$ ) or were working towards ( $n=1$ ) Level 2 certificates. The terms of  
183 the Rugby League coaches' current coaching positions varied between part-time volunteering  
184 or hourly paid, whereas all Football coaches were full-time and receiving salaries. Due to the  
185 range of coaching positions, the coaches spent between 2 and 30+ hours per week engaged in  
186 activities related to coaching. Taken together, the demographic data indicates heterogeneity  
187 across the coaches in the sample, particularly in terms of their age, stage of coaching career,  
188 and time devoted to coaching each week.

189

### 190 *2.3 Procedures*

191 Following institutional ethical approval, participants were given an information sheet  
192 and signed a consent form prior to taking part in individual semi-structured interviews. They  
193 were assured of their anonymity in the study and advised that their individual comments would  
194 not be linked to their sport specifically. This approach has been used in previous research in  
195 this domain (e.g., Smith et al., 2010; Kirby et al., 2011; Allen et al, 2017) to encourage  
196 participants to respond honestly and protect participant identities. Therefore, data is  
197 collectively represented and pseudonyms have been used throughout

198

#### 199 *2.3.1 Interview details*

200 Coaches' roles in anti-doping efforts were explored during *two phases* of individual  
201 semi-structured interviews. Interviews are a valuable tool to elicit rich and detailed insights  
202 into individual's experiences and perceptions (Smith & Sparkes, 2016) and enable in-depth,  
203 contextualised, *why* and *how* of coach opinions and behaviours, as opposed to only the *what*  
204 (Potrac, Brewer, Jones, Armour & Hoff, 2000; Patton, 2002). A semi-structured approach  
205 ensured the exploration of all relevant topics with each coach (Sparkes & Smith, 2014), while  
206 also allowing flexibility for each interview to take on 'a life of [its] own' (Hardie, Shilbury,  
207 Ware & Bozzi, 2010), including the researcher asking unplanned questions to gain  
208 unanticipated insights (Smith & Sparkes, 2016).

209 Nine (of the original 12) coaches took part in follow-up interviews (n=5 coaches from  
210 Rugby League and n=4 from Football), affording coaches the time to reflect on what has  
211 already been told and build upon the rapport that has already been developed (Josselson, 2013).  
212 This approach serves to clarify and expand upon the coaches' descriptions to gain full, rich and  
213 unrestrained accounts of experiences with depth and breadth beyond surface-level reflections  
214 (Polkinghorne, 2005). The two interviews were conducted between 7 and 14 months apart,  
215 depending on coach availability (with 7/9 conducted within 11 months and 2/9 conducted at  
216 14 months).

217 Guides for the two phases of interviewing were developed on separate occasions but  
218 through the same step-wise process of engagement with existing literature and policy  
219 documents (e.g., WADC, 2015), reduction/refinement of questions, and  
220 structuring/theming/ordering (Smith & Sparkes, 2016). Interviews began with a discussion of  
221 the coach's background, including past coaching experience (first interview only) and current  
222 coaching position. This discussion enabled the interviewer to verify that participants worked  
223 with emerging sportspeople, helped build rapport and trust from the outset (Patton, 2002), and  
224 gave context to the subsequent discussions. During first interviews, the focus was on asking

225 participants to consider their experiences (e.g., *Do players come to you to talk about or for*  
226 *advice about doping-related topics?*), opinions (e.g., *Do you have a part to play in working*  
227 *with players on doping-related topics?*) and behaviours (*What do you do in your every-day*  
228 *coaching practice?*) related to anti-doping. Scenarios were also used as a projection technique  
229 as they required participants to consider their feelings, opinions and possible behaviours (e.g.,  
230 what might/will you do?) in relation to hypothetical future events. All participants were  
231 presented with three scenarios, which involved 1) a player's curiosity about supplements and  
232 other substances to enhance recovery from injury, 2) individuals raising suspicions of others  
233 doping, and 3) an individual admitting doping. The scenarios were informed by the limited  
234 published research regarding the nature of coaches' doping-related interactions with their  
235 athletes (Laure, Thouvenin & Lecerf, 2001; Ozbek, 2013) and previous unpublished work by  
236 the authors. Taken together, the three scenarios represent escalating degrees of player doping  
237 involvement in order to see if this impacted the coaches' responses.

238         Based on insights from the first interviews, the second interviews paid particular  
239 attention to exploring 1) if, and how, coaches *proactively* prevent doping in their environment,  
240 2) coaches' awareness and fulfilment of existing anti-doping policy directives, and 3) coaches'  
241 broader approach to player development and 'off-field issues' (e.g., gambling, racism). To  
242 facilitate the exploration of policy, coaches were presented with a printed copy of Article 21.2  
243 of the WADC (WADA, 2015), which lists their roles and responsibilities to: 1) use their  
244 influence on athlete values and behaviour to foster anti-doping attitudes, 2) be knowledgeable  
245 of, and comply with, all anti-doping policies and rules applicable to them or their athletes, 3)  
246 cooperate with testing/doping control procedures, 4) cooperate with doping-related  
247 investigations, 5) refrain from personal use of banned substances, and 6) inform sporting and  
248 anti-doping organisations of any involvement in doping behaviours within sports that are not  
249 signatories of the Code. Coaches were asked if they were aware of these expectations, if and

250 how they were currently meeting them in their every-day coaching practice, what they thought  
251 they might/could do to meet them in the future, and what their opinions of the expectations  
252 were (i.e., were they appropriate).

253

#### 254 *2.4 Data analysis*

255 First interviews lasted between 31 and 84 minutes ( $M=49.93$ ,  $SD=16.74$ ) and second  
256 interviews lasted between 31 and 126 minutes ( $M=80.9$ ,  $SD=30.9$ ). Subject to the consent of  
257 participants, all interviews were digitally recorded to facilitate verbatim transcription. Prior to  
258 analysis each coach was asked to review an emailed copy of their transcript(s) for accuracy  
259 and to advise if they wished to remove their data from the study (Patton, 2002). Inductive  
260 Thematic Analysis (Braun & Clarke, 2006; Braun, Clarke & Weate, 2016) was used to examine  
261 the data during both phases of interviewing. It is important to highlight that the process of  
262 thematic analysis described here may seem relatively linear (i.e., Step 1, Step 2, Step 3).  
263 However, the analysis undertaken was complex, and 'recursive' (Braun, Clarke & Weate,  
264 2016, p. 196).

265 The six-stage thematic analysis process began with familiarisation to ensure that the  
266 lead author was immersed in the data and fully understood each case; this involved listening to  
267 the audio recordings, transcribing these into written documents (transcripts), checking these  
268 documents against the audio recordings, reading and re-reading the final transcripts, and  
269 making brief notes of ideas that this familiarisation process had prompted related to the  
270 research aims (Stage 1). The next stage (2) consisted of generating initial codes through open  
271 coding each interview transcript. Specifically, descriptive labels (i.e., codes) were added to  
272 segments of text that were deemed relevant to the research aims (i.e., what coaches do and why  
273 they do it). Coding of each transcript was repeated twice, with both semantic and latent coding  
274 included in both rounds (though, latent codes were often identified in the second round).

275           After the second round of coding, all codes from all transcripts were collated. In Stages  
276 3 and 4, codes were grouped into themes. This process involved the researcher identifying  
277 patterns in the codes, including ‘clusters’ where several codes appeared to represent the same  
278 or similar concepts. The findings were discussed in-depth with the second author at this stage.  
279 In line with the ontological relativist perspective, the researchers were ever-mindful that  
280 realities are multiple and subjective – meaning that the coaches’ perceptions and experiences  
281 were likely to be diverse. Thus, the researchers were focused on looking to identify patterns in  
282 the data that represented contrasting findings, not just consensus. Additionally, in line with the  
283 constructionist epistemology, the researchers actively created the themes by drawing upon their  
284 personal autobiographies and interpretation of the coach accounts. Thus, the themes did not  
285 ‘emerge’ from the data (Braun, Clarke & Weate, 2016). By the end of this stage, the researchers  
286 had developed two themes (1: Supportive of anti-doping efforts, 2: But not keen to lead them);  
287 each comprising several subthemes. Adopting this two-tier thematic structure enabled a diverse  
288 range of ideas related to each theme to be captured.

289           In Stage 4, each interview transcript was reviewed against the codes, sub-themes and  
290 themes. The volume and complexity of the dataset led to the researchers going back and forth  
291 between the transcripts and the thematic map for some time. This resulted in a decision being  
292 made to create a third theme (Anti-doping policy: limited reach and impact), whereby data  
293 related to policy was separated from the factors underpinning coaches’ opinions and behaviours  
294 (Theme 2). Although the policy-related data interconnects with the other two themes, a more  
295 coherent and compelling story of coaches’ anti-doping roles - and the factors that influence  
296 their roles – could be offered through the formation of a third theme. Providing a concise,  
297 coherent and interesting account was emphasised as vital by Braun, Clarke and Weate (2016).

298           Stages 5 and 6 consisted of final findings being summarised in a ‘thematic map’ and  
299 the analytic narrative presented in this publication being written. During this process, the names

300 of themes and subthemes were identified, with compelling quotations being used for these  
301 where possible. In this vein, the inclusion of quotations has been prioritised throughout the  
302 narrative, with excerpts being used for both illustrative and analytical purposes. It should be  
303 noted that the second author played a pivotal role in ‘challenging’ the thematic structure,  
304 shaping the narrative within each theme, and selecting rich quotes to represent and illustrate  
305 the sub-themes.

306

### 307 *2.5 Research Quality*

308         Given our interpretivist philosophical position, reflexivity is crucial to the quality of  
309 the study and we acknowledge our influence on the study from start to finish. Specifically, our  
310 assumptions, knowledge, skills and experiences led us to devise the research aim, ask the  
311 particular questions that were asked during the first interviews, reflect on the first interviews  
312 and identify areas of interest (and develop questions) for the second interviews, and create and  
313 interpret the themes (including in relation to existing research evidence) the way we did during  
314 the analysis process and writing of this paper. Throughout the study, the researchers paid close  
315 attention to how their own thoughts, feelings and behaviours were impacting the research  
316 process. This reflexivity was very helpful during the period between the two interviews, when  
317 the first author (who conducted all interviews) had the time and space to reflect on the data and  
318 question the initial interpretations. In particular, some of the initial findings from the first  
319 interviews had been unexpected (such as the passivity shown by coaches towards the issue)  
320 and this challenged the first author’s preconceptions about the anti-doping roles that coaches  
321 might undertake. Building on this, the second interviews provided an opportunity for the  
322 researchers’ initial interpretations of the data from the first interviews to be checked and  
323 challenged (i.e., corroborated or contradicted).

324 In line with contemporary views of enhancing the quality of qualitative research (e.g.,  
325 Smith & McGannon, 2017), conversations with ‘critical friends’ were prioritised. Throughout  
326 the study, the lead author was repeatedly prompted by the second author to be reflexive (as  
327 described above) and regularly challenged the interpretations of the data. A second critical  
328 friend, who was not involved in the study but was knowledgeable of the anti-doping field and  
329 was a retired coach, read an early draft of this paper and concluded that the interpretations  
330 resonated and offered a coherent narrative. Lastly, the lead author presented this work at an  
331 internal event attended by staff and post-graduate students from a number of disciplines (e.g.,  
332 sport and exercise psychology, nutrition and coaching) and external stakeholders (e.g., coaches,  
333 coach educators, anti-doping educators). This provided an opportunity for the lead author to  
334 share the research findings by constructing, delivering and ‘defending’ a coherent narrative and  
335 engage in ‘critical dialogue’ with the audience. This engagement with a wider audience again  
336 implied that the interpretations were seen as plausible and coherent.

337 It should be noted that the researchers do not advocate the use of universal criteria to  
338 judge the quality of this study. Instead, the reader is encouraged to consider a time-, place- and  
339 purpose-contingent list of criteria (Sparkes & Smith, 2014). This is a relativist approach, where  
340 ‘evaluative criteria should be study specific’ (Sparkes & Smith, 2014, p. 334). In conducting  
341 the study, we aimed to gain an understanding of what coaches do and why they do it and we  
342 placed considerable importance on honouring the stakeholder insights, i.e., we prioritised  
343 giving a voice to coaches on the front-line. We feel we achieved this and enhanced the quality  
344 (e.g., width, credibility, rich rigour and coherence) of the research by (a) sampling from a group  
345 of coaches who were able to provide meaningful insights appropriate to the purpose of the  
346 study, (b) conducting two interviews which increased the time spent with each coach, giving  
347 them greater opportunity to communicate their perspectives and enabling the relationship  
348 between the coach and the interviewer to develop (including greater trust and rapport), (c)

349 adopting an inductive approach to analysis which allowed the data to drive the thematic  
350 structure and participants' own words are utilised as sub-themes where possible, and (d)  
351 conducting the research in a manner that considered, and addressed, the checklist for "good"  
352 thematic analysis by Braun and Clarke (2006) and Braun, Clarke and Weate (2016). Beyond  
353 this, we wish to highlight the study's worthiness, satisfied by the relevance, timeliness and  
354 significance of the findings relative to recent allegations of coach involvement in doping (e.g.,  
355 systemic doping in Russia) and substantive contribution, as the findings extend knowledge and  
356 the thick descriptions will serve to stimulate future research. We acknowledge that other  
357 qualitative researchers may adopt differing criteria when reflecting on the quality of our work  
358 and their own.

359

### 360 **3. Findings**

361 The purpose of the study was to explore coaches' anti-doping roles, including what  
362 coaches do and why they do it. Although it was difficult to portray the complex and dynamic  
363 nature of the coaches' accounts in a single illustration, Figure 1 shows the themes and sub-  
364 themes constructed through the inductive thematic analysis. In brief, it captures the essence of  
365 the conversations in which coaches professed that they are supportive of anti-doping efforts,  
366 but are not keen to lead them.

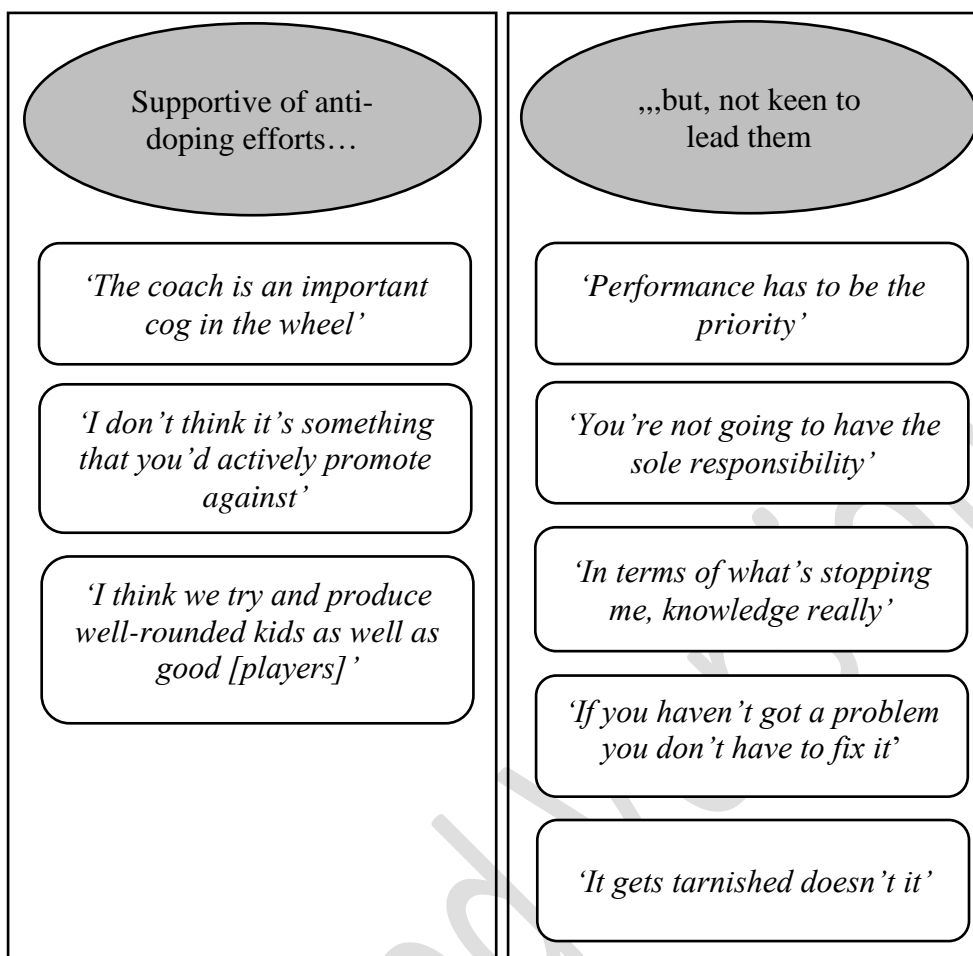
367 The first theme represents the coaches' declared anti-doping attitudes and  
368 acknowledgement of their position of influence in players' lives. It also encompasses their  
369 description of how they exert their influence by undertaking a number of behaviours, namely  
370 monitoring players, giving advice and role-modelling. These behaviours have been interpreted  
371 in relation to a dynamic environment that drives reactive responses that are passive and indirect  
372 nature. We also situate them in the coaches' general approach to player development.



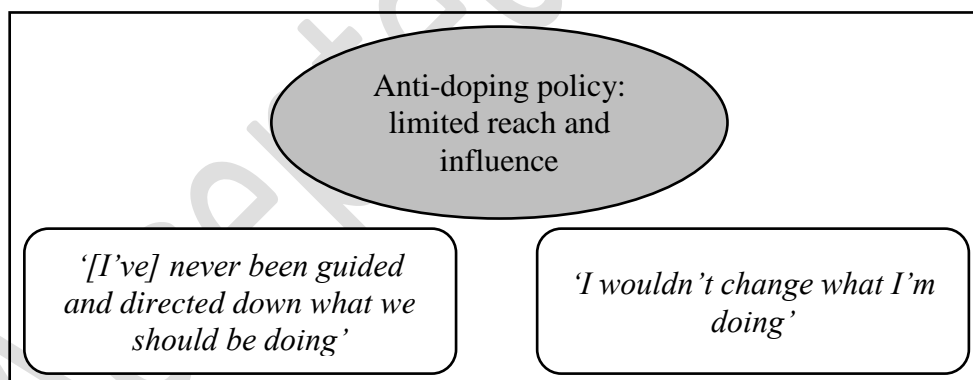
373           The second theme brings to the fore several individual and environmental factors that  
374 were interpreted as influencing coaches' opinions and behaviours. These include: 1)  
375 prioritisation of performance-related development, 2) low self-efficacy to work with players  
376 on doping-related matters, 3) diffusion of responsibility to colleagues or external partners to  
377 take the lead on anti-doping, and 4) lack of buy-in to the importance of anti-doping action. The  
378 latter perspective appears to have been driven by two fundamental assumptions made by the  
379 coaches; that their players already know about anti-doping and and that doping does not happen  
380 in their specific environment. Arguably, these assumptions threaten the pursuit of doping-free  
381 sport as they point to a wilfully blind community, motivated to protect their players and their  
382 sport from the negative stigma that comes from doping in sport.

383           Building from themes one and two, the final theme calls into question the reach and  
384 impact of current anti-doping policy on practice. Coaches in this study reported a lack of formal  
385 role-related guidance and it was determined that they did not fulfil all their anti-doping policy-  
386 prescribed responsibilities. On the contrary, some coaches proposed acting in ways that could  
387 violate anti-doping rules when faced with doping-related scenarios. Moreover, it became  
388 apparent that coaches were becoming aware of their anti-doping roles and responsibilities for  
389 the first time through the interview process. This learning experience initiated a process of  
390 reflection and coaches concluded that, despite this acquired knowledge, they were unlikely to  
391 change their behaviours to align with the policy-based expectations in the future. As a direct  
392 challenge to current anti-doping policy and practice, coaches asserted that whilst the roles and  
393 responsibilities are reasonable, they are not realistic (based on the influencing factors described  
394 in theme 2). In drawing this conclusion, it should be noted that the coaches age/experience,  
395 employment status (part-time/full-time, paid/volunteer) and the number of hours they devoted  
396 to coaching each week created no obvious effect on the coaches' anti-doping behaviours and  
397 influencing factors.

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417 Figure 1. Thematic map, wherein shaded ovals represent the three main themes and rounded  
418 rectangles represent the sub-themes contributing to these themes.

419

420 *3.1 Supportive of anti-doping efforts*

421 *'The coach is an important cog in the wheel'*

422 The majority of coaches expressed anti-doping views, describing doping as 'bad',  
423 'unfair' and/or 'wrong'. Most coaches also believed they have a part to play in anti-doping

424 efforts, with one coach remarking that the coach is *'an important cog in the wheel'* (Lucas).  
425 He and a number of coaches suggested that *'coaches do have an important role to play'* because  
426 a coach is the person *'that players look up to and they will listen to'* (Ben). Coaches explained  
427 that players listen to their coach because they are *'the people who are in charge'* (Jack) and  
428 this was reinforced by Lucas when he says *"I'm the one who picks the team, so I'm the one*  
429 *they listen to the most. Not because I'm more important, but just because I'm the one who picks*  
430 *the team..."* However, when asked if they play a part in anti-doping efforts a number of coaches  
431 initially stated that they did not. Sam said *'Is it our job to do it? To speak to them and advise*  
432 *them? I don't think it is'*. Yet, he added *'but certainly know where to send them and to support*  
433 *them is our job yeah'*.

434 For all coaches, whether they did or did not explicitly identify themselves as having a  
435 role to play in anti-doping efforts, consensus emerged in terms of the actions they would be  
436 willing to undertake. These actions were framed by their position as vigilant observers of  
437 behaviour and being able to recognise when players were not themselves. In turn, coaches felt  
438 well placed to give advice and monitor players. Steve explained:

439  
440 *I think I'm pretty good at spotting when something's up with somebody. I might not*  
441 *necessarily know what it is straight away, but I think I can tell when something's not*  
442 *right and I'm not scared to pull somebody to the side and say.*

443  
444 With regard to giving advice, Hugo said *'If there was a comment you might say*  
445 *something back'* and Sam stated *'If they come to us and ask questions we give them the correct*  
446 *answers'*. In particular, coaches reported giving advice in relation to nutrition and supplements.  
447 This creates a potential doping risk as, generally speaking, coaches are not registered  
448 nutritionists and dieticians. Therefore, they may not be qualified to offer advice on this topic

449 when asked for it by their players and any advice offered could be misguided. William recalled  
450 *'I've been approached about nutritional advice, which I'm happy to give because I think I'm*  
451 *quite up on that...I mean, nutritional conversations we have'*. Similarly, Ben said *'You speak*  
452 *with them regularly, you know, you question them about their diet and are they doing the right*  
453 *things'*. In addition to requests for nutritional advice, coaches reported that doping-related  
454 conversations with players or other staff are often about medications. Noah explained *'it comes*  
455 *up when people are ill. "Oh be careful what you're taking"'*. Several of the coaches drew  
456 particular attention to cold remedies, with Lucas commenting *'What we get questions about is*  
457 *some of the substances in things like Lemsips, etc'*. These routine approaches serve to reinforce  
458 the importance of supporting the coaching community to not only be fully cognisant of the  
459 risks associated with supplement and medication use, but also feel confident in guiding players  
460 towards a food first approach and seeking support from qualified health care professionals.

461

462 *'I don't think it's something that you'd actively promote against'*

463 Coaches' anti-doping behaviours were typically discussed as an acute reaction to a  
464 situation arising and several coaches admitted that they do not outwardly promote anti-doping  
465 messages. Hugo said *'I don't think it's something that you'd actively promote against*  
466 *anyway...It's not like I'd walk round with a t-shirt on saying "don't take drugs" in the gym'*.  
467 Our interpretation of the evidence led us to conclude that coaches reported approaching other  
468 'undesirable' behaviours (e.g., racism, gambling) in a similarly reactive way. William  
469 commented *'It'd just be one of those things that if and when it raises its head it gets dealt with*  
470 *straight away'* and Daniel remarked *'I don't think there's any of them [from the list of*  
471 *'undesirable' behaviours] that are kind of tackled directly before anything happens'*. These  
472 findings were noteworthy in light of the assertion by almost all coaches that *'(doping) rarely*  
473 *comes up'* (Noah).

474 For us, the indirect influence that coaches assumed they were having on players' anti-  
475 doping values and behaviours was striking. Daniel illustrates this point when he says:

476

477 *I think that's done not massively overtly, but just in the general kind of conduct and*  
478 *behaviour of, it's made explicit that there's a right way to behave and a wrong way to*  
479 *behave.*

480

481 One aspect of this indirect influence related to coaches openly communicating with  
482 players about their performance and development. Oliver said *'I think what you try and do is*  
483 *you try to be as fair and as honest and as open with them as you can'*. Hugo also explained  
484 *'It's getting them to understand that, you know, they should be, you know, developing their*  
485 *performance in a safe and ethical way'*. A number of coaches also drew particular attention to  
486 *'promoting the right lifestyle for these players'* (Ryan) and giving the players *'a bit of advice*  
487 *on lifestyle'* (Ben), including *'eating the rights things, drinking at the right time, having the*  
488 *right rest'* (Oliver).

489

490 *'I think we try and produce well-rounded kids as well as good [players]'*

491 Building on our interpretation that coaches' anti-doping behaviours are indirect – and  
492 passive – coaches stressed the importance of creating a club/team environment where  
493 behavioural expectations and values are clear. Ben commented *'It's very important, especially*  
494 *as a coach, you're creating a culture with young people and young players coming through'*.  
495 Across the group, the coaches reported that they worked on a multitude of areas, including  
496 players' respect, honesty, patience, good manners, positive work ethic, open-mindedness,  
497 humility/humbleness and grace in defeat. Noah said *'We want them to be happy, shake hands*  
498 *with people, say hello, look you in the eye. We want them to be decent people, help around the*

499 *house, tidying up. We want good, honest people*'. Indeed, coaches said that they took an interest  
500 in, helped with, and prepared individuals for life outside of the club/sport. This included  
501 encouraging the players to take responsibility, be punctual, be prepared and make good  
502 decisions. A few coaches specifically commented that they adopted an '*holistic approach*'  
503 (Jack) and worked to develop '*rounded individuals*' (Oliver). Ryan commented:

504

505 *Well in terms of sort of making people prepared for society really. So, making sure that*  
506 *they understand how to be a good person, so everything away from [sport]...I think in*  
507 *sort of everything you do you sort of try and discipline the players in the rights and*  
508 *wrongs – and that's across the board, not [just] lifestyle and everything else, but trying*  
509 *to get them to work hard and everything else. You're trying to teach them right and*  
510 *wrong really, just like any parent does.*

511

512 However, it was apparent that some of the coaches found it difficult to articulate how  
513 they achieved this type of holistic player development in their practice. As an example of this,  
514 Lucas struggles to articulate the process of doping prevention:

515

516 *I wouldn't quite know how to quantify it...We have certain values at this club and I*  
517 *have certain personal values and I think that if you spoke to any of our kids about me*  
518 *they would know what my thoughts on that (doping) were because of my personal values*  
519 *and how we speak over a period of time...we have got a reputation of fair play. And I*  
520 *think that goes with everything...I think [it] leads to off the [field of play] as well...I*  
521 *think we try and produce well-rounded kids as well as good [players]. But I have to*  
522 *say, without particularly being specific towards that (doping)...I think you can use it as*  
523 *a get out to say, "we do it", "it just happens". I can almost hear myself saying it, but I*

524 *can genuinely hand on heart say here it isn't. It's a bit like a bubble here, "it's a special*  
525 *place" and all that, but it is. I think most of that comes from not what you can see if*  
526 *that makes sense. I'm not trying to make some mythical magical thing, but it's a bit like*  
527 *the ingredients, the environment, everything is, I think the values and how that, we do*  
528 *not sit down at any point and say "right twice a year we'll have a thing with the kids*  
529 *when we talk to them about this (doping)". We don't.*

530

531 Although coaches found it difficult to articulate the way they prevent doping, or other  
532 'undesirable' behaviours, through the culture they create, several coaches described setting out  
533 their expectations (often at the start of the season), monitoring behaviour, and disciplining the  
534 players if they compromised these expected standards. Jack said '[you] make them aware that  
535 taking, sort of, performance enhancing drugs and, you know, recreational drugs and  
536 supplements, you know, are not the done thing'. Beyond this, the coaches also discussed  
537 encouraging the 'right' behaviours in players through their own behaviours by 'setting an  
538 example to the kids' (Noah):

539

540 *I suppose the role models thing [is] big on this. So, the fact that like, I mean, if we*  
541 *turned up and we looked like we'd been on recreational drugs the night before, or sort*  
542 *of looked hungover or whatever, then it wouldn't send the right message to the players*  
543 *really. So, the fact that we're always prepared properly and living the right lifestyle*  
544 *ourselves hopefully that would rub off on them a little bit. (Ryan)*

545

546 Although several coaches discussed 'holistic' player development as involving life  
547 beyond sport (i.e., the whole person) and referred to the 'complete player' (Alex), many of the

548 coaches seemed predominantly concerned with player development aligned to match  
549 performance:

550

551 *If you get good people they tend to be better performers. You want people that are going*  
552 *to work hard. You want people who are well-mannered. You want people who show*  
553 *respect...if you develop good people, then you've got half a chance at developing a*  
554 *good player...our job basically is to produce players for our first team that we can, that*  
555 *our first team can sell on...So, we're trying to produce the complete player. (Lucas)*

556

557 *3.2...not keen to lead them [anti-doping efforts]*

558 *'Performance has to be the priority'*

559 Despite being generally supportive of anti-doping efforts, some coaches stated that  
560 purposely working on 'off-field' behaviours such as anti-doping, gambling and racism was not  
561 an essential part of their remit. Noah commented *'I don't see it as my department. And if it is*  
562 *in my contract then I'd have to hold my hands up'*. Similarly, Hugo said that coaches *'are not*  
563 *there to deal with these other issues...they're there to coach [sport]'*. Several coaches stated  
564 that their focus must be on *'the performance side of things'* (Ben). Corroborating this, a number  
565 of the coaches highlighted that they would only work on undesirable 'off field' behaviours if  
566 they thought they were negatively affecting their players' performances. Otherwise, coaches  
567 suggested that their time was better spent on other 'more relevant' matters. Lucas remarked:

568

569 *We only get so many hours so performance has to be the priority...Our thoughts are*  
570 *constantly about improving players and producing players and that is a, believe me is*  
571 *a 24/7, 7 days a week, 365 days a year drug in itself. So, this other stuff, although it's*  
572 *there and it's, then I have to say it is secondary in our thoughts.*



573

574 *'You're not going to have the sole responsibility'*

575 Coaches demonstrated a strong desire to share, and in some instances diffuse,  
576 responsibility for anti-doping with/to others. Discussing their internal support network (i.e.,  
577 within their club), all but one coach (who had only one other member of staff in his club)  
578 reported that they would seek support from other individuals if they ever faced a doping-  
579 dilemma. William said he would prefer *'to make a group decision. You know, you're not going*  
580 *to have the sole responsibility of what effects might happen for that player on your shoulders.*  
581 *You kind of acted as a team'*. In response to hypothetical scenarios, including being approached  
582 by a player who was struggling to recover from an injury and becoming curious about  
583 supplements and substances, coaches would turn to 'medical staff' in the first instance. When  
584 medical staff were not available, coaches turned to sports scientists and strength and  
585 conditioning coaches. In the event of a player reporting suspicions that another player is doping  
586 and a player admitting that they are doping themselves, coaches would turn to welfare/child  
587 protection officers or their superior (generally the academy or scholarship manager). Indeed,  
588 common to all the hypothetical scenarios, several coaches commented that they would 'pass  
589 the buck' or seek support from someone who was *'senior'*, an *'authority'* and/or *'higher in the*  
590 *chain of command'*. Our interpretation of the risk in this situation is that no one takes  
591 responsibility for addressing the doping behaviour and consequently doping persists.

592 Beyond authority figures, we found that coaches turned to individuals whom they  
593 perceived as having more expertise/knowledge. For instance, Alex commented *'I don't know*  
594 *everything that's on the banned substance list...if a player comes up and says "am I alright*  
595 *taking this?" [I'll] send them to the doctor because the doctor will know'*. It was not surprising  
596 then when asked if they played a part in educating their players, coaches described how they  
597 drew on 'specialists' from outside their club. For instance, Oliver shared:

598

599 *We leave [it] to the professional people that come in. You know, the advice that they*  
600 *pass on or impart to the players. Erm, so I mean that side of it, you know, we're aware*  
601 *of it, you know, we're aware that it's under control and everything like that, but we*  
602 *basically leave it to the professional people that come in...really it is a field that's like*  
603 *for experts.*

604

605 For the first time this study highlights important barriers to engagement in doping  
606 prevention by this influential stakeholder group. Under this sub-theme the coaches we spoke  
607 to perceived that anti-doping is a field for experts and they did not see themselves as that.

608

609 *'In terms of what's stopping me, knowledge really'*

610 Coaches' behaviours were driven by a perceived lack of anti-doping knowledge and  
611 low self-efficacy to partake in (anti)doping conversations. Hugo said *'It's that extra pressure*  
612 *of having to deal with something they [coaches] are not sure about'*. Further explaining their  
613 reservations, coaches reported concerns about giving incorrect information/guidance, as  
614 illustrated by Ryan, *'In terms of what's stopping me, knowledge really...I would maybe feel*  
615 *more comfortable that we get somebody, an expert, in and come and speak to the players*  
616 *rather than me doing it...just in case what we're saying is not quite right'*. A similar fear of  
617 'getting it wrong' was evident in William's analysis of the issue, and served to highlight  
618 another barrier to engagement in doping prevention:

619

620 *I mean if you are in a shop and you sell them the wrong thing they can return it, but if*  
621 *I advise somebody the wrong thing that they can take and they ultimately get banned*  
622 *for two years, you're probably to blame for their entire career, that's the thing. I think*

623 *that any coach would be the same, they would be wary of giving that advice...I think*  
624 *that people probably just think "I'd rather not say anything".*

625

626 *'If you haven't got a problem you don't have to fix it'*

627 The coaches' anti-doping actions (or lack thereof) seemed to be strongly influenced by  
628 how likely they believed it was that their players would dope. Most coaches stated that doping  
629 did not, and was unlikely to, occur in their current environment, and this framed the relevance  
630 of the issue. For example, William stated '*Certainly not with the group I work with*'. Other  
631 coaches were less assertive, but still suggested that doping was not prevalent, or likely, in their  
632 environment. Jack said '*I'm sort of pretty confident in saying that it doesn't happen at this club*  
633 *anyway*' and Steve indicated '*I'll be honest with you, maybe beforehand, possibly, but this*  
634 *group, no*'.

635 The coaches' perceptions of doping prevalence and relevance are important because  
636 they factored into coaches' decisions to explicitly address doping and other off-field  
637 behaviours. For instance, Daniel said '*It doesn't feel like there's a need to [work on any 'off-*  
638 *field' behaviours] because it's kind of a well-disciplined group...I think the performers are old*  
639 *enough to realise that it's not something that we would support*'. Similarly, Hugo stated '*the*  
640 *players know right and wrong*' and Lucas corroborated this view:

641

642 *I don't think it's (anti-doping) particularly relevant for [sport]... [Anti-doping is] a*  
643 *small drop in what we do on a day to day basis, that's what it is. It is a small drop in*  
644 *it, and for that day it might be that you think about it. To make it influence your day-to-*  
645 *day workings I suppose the obvious thought is – if you haven't got a problem you don't*  
646 *have to fix it. Now that is what, if I was speaking to you in a pub and we were having a*

647 *chat, that's what I'd say to you. We haven't got a problem with [club], I haven't got to*  
648 *do anything...until somebody comes to me and says "look there's, this is happening".*

649

650 Through the interview process it was apparent that coaches consistently deflected the  
651 issue of doping onto other environments. Firstly, they proposed that *'in team sports it's not*  
652 *necessarily as big an issue as it probably is in more individual sports'* (Hugo), with cycling  
653 and athletics being the sports most frequently identified as high risk. Secondly, some coaches  
654 were willing to acknowledge that doping had occurred in their sport, but they asserted that such  
655 behaviours *'happened in the past'* (Noah) or deflected the issue onto *'the amateur game'*  
656 (Hugo). However, a small number of coaches acknowledged that they might be naïve in  
657 thinking that doping is not prevalent in their sport or club. Oliver said *'I don't think it's that*  
658 *prevalent to be honest. I might be blissfully not knowing that it's out there'*. Similarly, Hugo  
659 commented:

660

661 *I don't think it's a major issue [in our sport], but, [I] don't know – maybe I'm wrong,*  
662 *maybe I'm a bit naïve...If you asked me if I thought any of the players [at my club] are*  
663 *taking anything I'd probably say no, but obviously, it's err, you don't know.*

664

665 Given that some coaches had knowledge of specific cases in their own sport (i.e., one  
666 coach knew someone who was serving a sanction for doping and another coach had witnessed  
667 someone being dismissed from a club for suspected doping when they were a player), it is not  
668 unreasonable to suggest that the coaches' self-identified naivety is actually demonstrating that  
669 coaches may be wilfully blind when it comes to doping in sport. Alex supported this notion in  
670 his comment that *'I do think it's there – and anyone who says it isn't is lying and kidding*  
671 *themselves'*.

672

673 *'It gets tarnished doesn't it'*

674 Several coaches described sports with an association to doping as having a '*bad*  
675 *reputation*'. For example, Sam said '*It's a shame for the sport because I know that there would*  
676 *be a lot of players, I mean cyclists, who don't. There'd be a hell of a lot of them [not doping],*  
677 *but it gets tarnished doesn't it*'. This view that doping-related incidents lead to negative  
678 connotations appeared to influence the coaches' proposed behaviours in response to a  
679 hypothetical scenario where a player within their team approaches them and admits that they  
680 have engaged in doping. In response to this scenario, only one coach proposed involving  
681 external individuals or organisations (i.e., reporting doping). Instead, coaches turned to  
682 colleagues or superiors for support, with a number of coaches specifically emphasising that  
683 they were keen to resolve the matter within their club. For example, Hugo said '*I don't think*  
684 *I'd, you know, report them. I don't think I'd report the player...even though, I know, you know,*  
685 *it's against, like I said before, my beliefs*'. Similarly, Lucas stated:

686

687 *If I'm being brutally honest, if a boy came to me, one of our [players] came to me and*  
688 *said "I've took"...I don't know..."cocaine on Saturday night. I totally regret it and I*  
689 *can't believe I've done it" – this that and the other, then I think I'd try and counsel*  
690 *them through it. We've got a Welfare Officer, and we wouldn't be reporting that I don't*  
691 *think. I think we'd try to deal with that in house.*

692

693 Having broadly interpreted the coaches' responses to hypothetical scenarios in the first  
694 interviews as protective, we took the opportunity during the second interviews to enquire as to  
695 why some individuals or clubs might not disclose known cases of players doping to external  
696 individuals or organisations. Protection again surfaced with several coaches stating that they

697 could understand a reticence to report in order to protect the player. However, there was also  
698 a strong sense of protecting the club, and the sport more broadly, from reputational risk.  
699 Specifically, some coaches indicated that clubs might not report known doping because they  
700 *'don't want the bad publicity'*. Lucas commented *'our worry truthfully is probably more that,*  
701 *you wouldn't want it, it's bad for the club if somebody's, it comes out that somebody's been*  
702 *tested for something'* and expanded:

703

704 *We're trying to persuade kids to come here, we've spent years producing these values*  
705 *that we keep talking about, if all of a sudden somebody damages that with something*  
706 *then you're knocked back and you're trying to build your reputation back up.*

707

708 Through the interviews it became apparent that doping stigma is not a beneficial tool  
709 for tackling doping in sport. Rather, stigmatization of dopers interferes with effective  
710 prevention efforts.

711

### 712 *3.3 Anti-doping policy: Limited reach and influence*

713 *'[I've] never been guided and directed down what we should be doing'*

714 Based on their responses to the hypothetical scenarios, coaches did not appear to  
715 consider themselves vulnerable to committing the ADRV of complicity. On the contrary,  
716 coaches were under the impression that they were fulfilling their obligation by reporting known  
717 doping to their superior. Daniel commented:

718

719 *I would speak to either one of the Head Coaches or [Academy/Scholarship Manager]*  
720 *about it. But that's not because of wanting to try to hide it, that's just because of the*  
721 *chain of command I guess.*

722

723           Yet, they had some awareness that there would be ‘consequences’ for coaches involved  
724 in doping-related situations. Some participants knew that coaches could be banned and most  
725 coaches assumed that involvement in doping would result in a coach being dismissed from  
726 their coaching position at the very least. Indeed, several participants felt that coaches involved  
727 in doping would be unable to work in sport again. Noah remarked *‘I would imagine I’d be*  
728 *black balled, wouldn’t I? Do you know what I mean? Helping kids on drugs. If I applied for a*  
729 *job, I wouldn’t get the job, would I?’* Notably, none of the coaches had been made aware of  
730 official procedures for dealing with doping-related situations within their club or sport.

731           In fact, coaches had never been told what was expected from them in relation to anti-  
732 doping roles or responsibilities at a club level, nor had they been made aware of the global anti-  
733 doping policy (i.e., the WADC) that applied to them as coaches. Hugo said *‘I don’t ever*  
734 *remember...ever being told...this is the rules, this is the policy, this is how things are done’*.  
735 Lucas also commented that the policy *‘doesn’t particularly get purveyed to coaches’* and  
736 explained that he had *‘never been guided and directed down what we should be doing’* because  
737 *‘it’s always been directed at the player’*. Therefore, the existence of the policy was not a key  
738 influence in coaches’ anti-doping opinions and behaviours.

739

740 *‘I wouldn’t change what I’m doing’*

741           Coaches commented that seeing the policy in the second interview raised their  
742 awareness of what is expected of them and *‘where I stand on it all’* (William). William said *‘I*  
743 *think they’re pretty fine...you’re not asking anyone to do anything out of the ordinary anyway*  
744 *are you. Everything there is pretty morally correct’*. The conversation that took place during  
745 the second interview appeared to encourage some of the coaches to self-reflect on the  
746 importance of the matter and conclude that they could be ‘looking into it’ more. Yet, in most

747 cases coaches reported that seeing the policy would not change how they behave in their  
748 practice and they did not think they would become more proactive in promoting anti-doping  
749 messages. Whilst there was a consensus across the coaches that the responsibilities outlined in  
750 policy were reasonable, several coaches raised concerns about how realistic they were due to  
751 several of the factors outlined in Theme 2, including perceived relevance and self-efficacy to  
752 act:

753

754 *It makes me think that I should know more information and be in a better position that*  
755 *if this scenario did come up that I'd be able to deal with that. But it wouldn't make me*  
756 *change my opinion that like I wouldn't change what I'm doing, I wouldn't start going*  
757 *around and saying to players "have you been taking drugs this weekend?" or "don't*  
758 *be taking drugs". I'd carry on as normal and don't make it an issue if I don't think it's*  
759 *an issue. (Hugo)*

760

761 *I think it's do-able, maybe just needs a little bit more support so that everyone is*  
762 *comfortable with that...at the minute, I'd sort of say, with all of them (the*  
763 *responsibilities listed in the WADC) "yeah, I think I can do it", but I'm maybe not as*  
764 *confident about it as what I should be (Ben).*

765

766 This theme is likely to raise concerns amongst global anti-doping leaders who routinely  
767 espouse the importance of athlete support personnel adopting an anti-doping stance. In order  
768 to fulfil their policy-prescribed roles and responsibilities, coaches called for greater clarity on  
769 policy-outlined expectations and a simplified language.

770

771 **4. Discussion**



772           The purpose of the study was to explore coaches' anti-doping roles, including what  
773 coaches do and why they do it. Within this purpose, a specific aim was to investigate coaches'  
774 awareness and fulfilment of policy-prescribed anti-doping responsibilities. The findings reveal  
775 that coaches are supportive of anti-doping efforts and undertake a number of indirect or reactive  
776 anti-doping behaviours. Yet, they are reluctant to fully commit to anti-doping efforts. A range  
777 of individual, social and environmental factors influenced coaches' anti-doping roles, namely  
778 their focus on performance, a reliance on others, a lack of self-efficacy in providing accurate  
779 information and a perception of anti-doping efforts as being irrelevant. Critically, coaches'  
780 behaviours did not fully align with the expectations of current anti-doping policy, with some  
781 coaches proposing actions that would equate to an ADRV. Furthermore, coaches challenged  
782 the rubric of the Code and brought into sharp focus the gulf between anti-doping policy and  
783 coaching practice.

784           Adding further weight to previous research (e.g., Allen et al., 2017; Fjeldheim, 1992;  
785 Judge et al., 2010; Nicholls et al., 2015), coaches acknowledged their position of influence in  
786 players' lives and expressed prototypical anti-doping attitudes. Indeed, coaches reinforced the  
787 dominant 'doping as cheating' narrative (D'Angelo & Tamburrini, 2010; Engelberg & Moston,  
788 2016). In keeping with previous research, coaches acknowledged that they may respond to  
789 queries/requests for (anti)doping information (Judge et al., 2010; Engelberg & Moston, 2016;  
790 Engelberg et al., 2017), particularly in relation to inadvertent doping through the use of  
791 nutritional supplements and medications (Allen et al., 2017). Thus, coaches appear cognisant  
792 of the threat of inadvertent doping; an important finding in light of the number of claims of  
793 inadvertent doping presented each year (UKAD, 2017). Consequently, it is important to ensure  
794 that coaches working in this context are kept up-to-date with these two key areas of anti-doping.

795           Overall, coaches described behaviours that we interpreted as reactive or indirect.  
796 Specifically, they suggested they monitored players and emphasised the importance of

797 creating, and embodying, a culture where individuals come to know that doping is not accepted  
798 because they are encouraged to be ‘good’ people first and foremost and do things ‘the right  
799 way’ (i.e., positive work ethic, respect and honesty). Corroborating recent research with  
800 Scottish high-performance coaches (Allen et al., 2017), anti-doping was described as an  
801 implicit part of coaching and programme philosophy. Notably, our findings shed light on the  
802 passivity that defines the coaches’ actions towards other issues beyond doping that are not  
803 performance-focused. For example, a passive and indirect approach was also present when  
804 coaches discussed other ‘off-field’ behaviours, such as racism, gambling and bullying. It  
805 appears that coaches are under the assumption that telling players what they expect of them  
806 and being a good role model is sufficient to develop a sportsperson’s values and life skills  
807 (McCallister, Blinde & Weiss, 2000).

808         In order to become more active and explicit in anti-doping efforts, coaches’ perceived  
809 lack of self-efficacy to work with players on doping-related issues – due to poor knowledge  
810 and understanding – urgently needs to be addressed. Indeed, the current study underscores  
811 earlier assertions that poor anti-doping knowledge renders coaches ‘ill-equipped’ to undertake  
812 anti-doping actions (Allen et al., 2017; Engelberg & Moston, 2016; Laure et al., 2001). While  
813 a well-rehearsed argument might be for coaches to increase their knowledge of anti-doping,  
814 our findings indicate that coaches have little desire to develop doping-related knowledge and  
815 are unlikely to ‘do more’ in the future because doping is typically not recognised as a problem  
816 in their coaching context (i.e., sport, country, level of competition, stage of athlete  
817 development) (e.g., Fung & Yuan, 2006; Mandic, Peric, Krzelj, Stankovic & Zenic, 2013;  
818 Moston, Engelberg & Skinner, 2015). Moreover, they have the opportunity to seek support or  
819 transfer responsibility to individuals around them (e.g., medical staff, managers) (Allen et al.,  
820 2017).

821           The challenge of coaches diffusing responsibility for doping prevention to others,  
822 whether internal or external to their environment, is that it undermines the potential of a  
823 collective effort to address the omnipresent threat of doping in sport. Engelberg and Moston  
824 (2016) commented that coaches can ‘circumvent’ their anti-doping responsibilities if they have  
825 the tendency to defer to ‘other professionals’ and the current study provides further evidence  
826 that coaches ‘pass the buck’, and possibly turn a blind-eye. Yet, if the ‘buck’ stops with no-  
827 one (i.e., everybody disengages from their anti-doping responsibilities and no anti-doping  
828 action is taken) an athlete’s right to doping-free sport will be difficult to protect. Therefore, it  
829 is vital that collective responsibility is encouraged (Whitaker, Backhouse & Long, 2014),  
830 where all individuals involved in sport take ownership for bringing about change within their  
831 ‘community’ and the importance of doping-free sport is emphasized across ‘whole systems’  
832 (i.e., at individual, social and structural levels of influence) (Backhouse et al., 2017).

833           Encouraging all parties to play an active role in doping prevention is particularly  
834 important considering many coaches in the present study would be reluctant to report doping  
835 to anyone external to their club and would instead prefer to address the matter *in-house*  
836 (resulting in them potentially committing ADRVs). A reticence to report – and therefore a  
837 tendency to ‘ignore’ – doping-related behaviours has previously been found in coaches  
838 (Vankhaldo & Planida, 2013) and a broader sample of Australian ASP (Mazanov et al., 2014).  
839 Mazanov et al. (2014) suggested that this was possibly due to the individuals’ lack of  
840 knowledge regarding their obligations as ASP. Similarly, Allen et al. (2017) found that there  
841 was a lack of clarity regarding anti-doping responsibilities – and only two (out of 23) coaches  
842 were clear that there were consequences for coaches of athletes caught doping. These findings  
843 are supported in the current study as coaches considered their proposed behaviours to be  
844 fulfilling their (assumed) obligations and they were unaware of the personal consequences of  
845 complicity. However, the current study revealed that in addition to a lack of

846 knowledge/guidance regarding responsibilities and consequences coaches may be exhibiting  
847 ‘wilful blindness’ (Heffernan, 2012) due to their need to protect the player, themselves, their  
848 club and/or their sport more broadly. As such, the coaches did not anticipate acting differently  
849 in the future once they had been made aware of the expectations and consequences that current  
850 anti-doping policy laid out for them as ASP. This signals a clear misalignment between policy  
851 and practice that must be investigated further to ensure that anti-doping policy is realistic and  
852 effective in reflecting and affecting behaviours on the frontline.

853 Coaches’ singular focus on performance must be taken into account when attempting  
854 to actively engage coaches in future anti-doping efforts. The way the performance narrative  
855 shaped their player development priorities offers further explanation of coaches’ passivity, or  
856 ‘complacency’, and corroborates the belief that coaches are ‘stuck between a rock and a hard  
857 place’, balancing development of the whole person with the whole player. This context was  
858 recently acknowledged by those responsible for engaging coaches with anti-doping education  
859 (Patterson, Backhouse & Duffy, 2016). Having recognised this difficulty, policy-makers,  
860 programme developers/deliverers, and coach employers might work with coaches to find ways  
861 of accommodating these competing demands to increase the likelihood that coaches will  
862 integrate doping preventive actions into their practice.

863

#### 864 *Limitations*

865 It is possible that social desirability influenced the coaches’ accounts, in that coaches  
866 may have believed that they had to report strong anti-doping views and behaviours. This is  
867 regularly identified as a concern in anti-doping research, where the truthfulness of self-reported  
868 attitudes and behaviours is often challenged (Moston et al., 2015). While this is a possibility, a  
869 number of coaches were not afraid to discuss their opinions openly, such as some coaches  
870 stating that they do not have a role, would leave some anti-doping matters to other individuals

871 and would not report doping behaviours. Furthermore, coaches revealed details of their  
872 personal experiences not only in relation to doping, but also in relation to other somewhat  
873 sensitive topics (such as the recent death of a loved one, mental health of a family member and  
874 other work-related issues they faced). This willingness to share personal stories suggests a good  
875 level of trust and rapport was established during the interview process. Moreover, it may relate  
876 to the fact that the researcher 1) explicitly stated that they were not judging them in all  
877 correspondence to participants, 2) informed participants that the study was independent, with  
878 no affiliations to sporting or anti-doping organisations, and 3) reassured participants that their  
879 comments would remain confidential, including consistent reiteration that the coaches'  
880 comments would not be linked to their sport in any presentation of the findings.

881         The use of a specific sample of coaches from two sports and one coaching domain could  
882 be seen as a limitation, as the degree to which findings can be extrapolated to other sports and  
883 domains might be questioned. However, the authors, as qualitative researchers, do not view  
884 generalizability through this 'statistical-probabilistic' lens (Smith, 2018). They propose that  
885 the study provides an in-depth, contextualised insight into the awareness, fulfilment and  
886 opinions of a specific group of coaches in relation to anti-doping policy directives, whereby  
887 returning to the same sample of participants for a second time, rather than recruiting a new  
888 sample of coaches, allowed the emerging behaviours and influential factors relating to coaches'  
889 anti-doping roles to be challenged (and confirmed) – further enhancing our understanding of  
890 this complex issue and informing policy- and programme-related actions in this context going  
891 forward. To facilitate naturalistic generalizability or transferability, the authors encourage the  
892 reader to consider if the findings 'reverberate' with them and/or if they recognize similarities  
893 and differences between the findings presented here and situations that they have experienced,  
894 witnessed or are familiar with (Smith, 2018). Furthermore, rather than seeking to generalise  
895 findings through inference, the current research might be expanded by replicating the methods

896 within other contexts (i.e., with coaches working at other levels of competition, in other sports,  
897 or in other countries). In particular, researchers are encouraged to engage with coaches working  
898 in sports with less (if any) ADRVs to investigate the anti-doping behaviours undertaken by  
899 these individuals. This might involve an exploratory study with these coaches on possible  
900 adaptive influences. This is important given that the coaches participating in this research -  
901 whose sports are in the top ten for ADRVs - perceived there to be no doping-related issues  
902 related to their players and this attenuated their engagement in anti-doping activities.  
903 Recognizing the importance of evidence-informed anti-doping policy and practice, it would be  
904 useful to consider whether coaches working in sports with few or no ADRVs would report the  
905 same views. Additionally, researchers are encouraged to give further consideration to other  
906 factors (beyond context) that may have the potential to influence coaches' role perceptions and  
907 behaviours, such as the coaches' age, experience and employment status (e.g., part-time/full-  
908 time, paid/volunteer).

909

### 910 **5. Conclusions**

911 Coaches acknowledge that they have a role to play in doping prevention and appreciate  
912 the significant influence they exert on their players. In this sense, their inclusion in global anti-  
913 doping policy and program efforts is obvious. Yet, this study has offered a more nuanced  
914 understanding of what coaches 'do' (or do not do) in practice when it comes to anti-doping,  
915 and the factors that influence their (in)action in this context. Specifically, novel insights have  
916 been gleaned through the exploration of coaches' awareness and fulfillment of global anti-  
917 doping policy directives, leading us to identify instances where coaches were in breach of the  
918 global policy-prescribed anti-doping roles and responsibilities. Indeed, coaches did not actively  
919 work to prevent doping in their sport and several individuals proposed behaviours that would  
920 constitute ADRVs. Moreover, coaches had no intention to change their behaviours having been

921 informed of their policy-prescribed responsibilities. This is important, as many previous  
922 authors have concluded that informing coaches of their responsibilities is an avenue to  
923 improving coach engagement with anti-doping. Yet, this is futile if coaches do not value the  
924 pursuit of doping-free sport and recognise fostering clean sport as a central aspect of their  
925 professional identity.

926 Adding further novel insights, and contrasting existing evidence and policy, the current  
927 study showed that coaches are not motivated to actively prevent doping in sport. Instead,  
928 coaches portrayed a performance narrative through the prioritization of performance above all  
929 else. Consequently, addressing coach role conflict and ambivalence towards anti-doping will  
930 require a more radical rethink in order to better understand the dynamic context within which  
931 coaches are situated so that tailored and targeted interventions can be implemented. For  
932 example, without institutional support and reinforcement for proactive doping prevention from  
933 the highest level, coaches will likely remain passive actors in the prevention efforts. Indeed, at  
934 the same time as increasing coaches' self-efficacy to prevent doping through enhanced  
935 knowledge and understanding, it is imperative that the sporting community raises the profile  
936 and status of doping prevention and removes the stigma of talking about doping in sport so that  
937 it is at least on a par with detection-deterrence. It is only through co-ordinated and collective  
938 action across the sporting landscape that we will foster accepted cultural norms for doping  
939 prevention, and generate the will to protect the rights of athletes, and coaches, to participate in  
940 doping free sport.

941

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