



Research paper

Clean Olympians? Doping and anti-doping: The views of talented young British athletes

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ABSTRACT

Background: Review articles suggest a small but significant proportion (between 3 and 12%) of male adolescents have used anabolic-androgenic steroids (AAS) at some point (Yesalis and Bahrke, 2000; Calfee and Fadale, 2006). In sport, the use of prohibited substances or processes to enhance performance, collectively referred to as 'doping', is banned by both sports' National and International Governing Bodies, and by the World Anti-Doping Agency (WADA) who run an extensive testing programme and educational initiatives designed to foster anti-doping attitudes.

Method: A total of 40 talented male and female athletes (mean average age 19.6 years) from 13 different sports attended 12 focus groups held over the UK intended to investigate athletes' attitudes toward doping. Focus group transcriptions were analysed and coded with the use of QSR NVivo 8.

Results: Athletes in general did not report a significant *national* doping problem in their sport, but exhibited sporting xenophobia with regard to both doping practices and the stringency of testing procedures outside of the UK. Athletes often viewed doping as 'unnatural' and considered the shame associated with doping to be a significant deterrent. Athletes perceived no external pressure to use performance enhancing drugs. In response to hypothetical questions, however, various factors were acknowledged as *potential* 'pressure' points: most notably injury recovery and the economic pressures of elite sport. Finally, a significant minority of athletes entertained the possibility of taking a banned hypothetical performance enhancing drug under conditions of guaranteed success and undetectability.

Conclusions: The athletes in this study generally embraced those values promoted in anti-doping educational programmes, although there were some notable exceptions. That the social emotion of shame was considered a significant deterrent suggests anti-doping efforts that cultivate a shared sense of responsibility to remain 'clean' and emphasise the social sanctions associated with being deemed a 'drugs cheat', resonate with this atypical social group.

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Background

The use of substances to enhance performance is not a new sporting phenomenon. Hoberman (2004) cites the use of doping substances in cycling in the 1890s, where riders were given extra caffeine, cocaine and even strychnine. Beckett and Cowan (1979) consider the origin of relevant legislation (such as the 1965 French Senate's anti-doping law), and the establishment of the International Olympic Committee Medical Commission, to have arisen from deaths in sport associated with substance use. A more recent catalyst (Vest Christiansen, 2005) arose out of the Tour De France of 1998, when it became clear that doping practices were systemic. Subsequently, the World Anti-Doping Agency (WADA) was established in 1999.

UK Sport is the QUANGO charged with the responsibility for managing and distributing public investment and state lottery funding for selected athletes in all but the highly commercialised elite sports. This organisation is also currently responsible for national anti-doping policy and its implementation, although in January 2010 this responsibility will transfer to a stand-alone National Anti-Doping Organisation. UK Sport defines doping as when athletes 'use prohibited substances or methods to unfairly improve their sporting performance' (UK Sport, 2009). A substance or process may be banned on the basis of its being a masking agent or if it fulfils at least two of the following three criteria: that it (i) enhances or has the potential to enhance performance (ii) threatens health or has the potential to do so; and (iii) is 'contrary to the spirit of sport' (WADA, 2009a, p. 33). The ban on doping in sport has been subject to strong critique from many quarters. Critics have questioned whether doping is contrary to the 'spirit of sport' and whether so vague a notion is operationalisable in policy terms (Foddy & Savulescu, 2007; Møller, 2009). Others have suggested

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that elite sport is an inherently unhealthy activity, and that a harm-based ban on health grounds is inconsistent (Foddy & Savulescu, 2007; Kayser & Smith, 2008). The growing cost of administering anti-doping programmes (Lippi, Banfi, Franchini, & Cesare Guidi, 2008) and the infringement upon athlete privacy of year round random drugs testing (Kayser & Smith, 2008; Kreft, 2009; Slater, 2009) have also been raised in order to undermine the legitimacy of WADA.

Review articles, though predominantly North American, suggest between 3 and 12% of male adolescents (Calfee & Fadale, 2006; Yesalis & Bahrke, 2000, 4–11%; American Academy of Pediatrics, 1997, 5–11%) have reported using anabolic-androgenic steroids (AAS) at some point. Female use is typically lower: 1–2% admitting using steroids (Yesalis & Bahrke, 2000). Of adolescents who reported using AAS, review articles suggest that between 30 and 40% were not engaged in competitive sport (Bahrke, Yesalis, Kopstein, & Stephens, 2000; Calfee & Fadale, 2006). Indeed, the use of substances in the pursuit of a body ideal appears an increasingly accepted practice. Baker, Graham, and Davies (2006) reported AAS prevalence rates of 70% in adult users of selected fitness gyms in South Wales (UK). This represents a challenge for anti-doping educational initiatives. Beyond recreational or cosmetic drug usage, recent research in neuroethics has suggested significant use of cognitive enhancement by academics (Sahakian & Morein-Zamir, 2007) and argued that it is a desirable trend (Greely et al., 2008). Moreover, some critics note that the zero-tolerance attitude of anti-doping authorities in sport is sharply at odds with acquiescence towards drug usage elsewhere in society (Kayser & Smith, 2008; Laure, 2009). Danish authorities have responded to this perceived schism by enforcing the same anti-doping regulations to recreational users but this move has been criticised on paternalistic grounds (Vest Christiansen, 2009). Recreational gyms are required to post a visible sign with a smiley face ☺ along with the text 'We test for doping in collaboration with Anti Doping Denmark' in a prominent place within the gym. Those gyms that do not comply equally must display a ☺ along with the statement 'We do not test in collaboration with Anti Doping Denmark.' Although not legally enforced, political pressure has been brought to bear to ensure compliance (Vest Christiansen, 2009). No other countries have adopted this strategy.

Zero-tolerance approaches toward doping reflected in anti-doping policy may be at odds with some attitudes held in society more broadly. There has however, been little research investigating athletes' attitudes toward doping, despite their centrality to the issue. The present study sought to better understand the attitudes of (UK based) talented young athletes toward doping and the sorts of pressures and temptations they may perceive with respect to engaging in doping at elite levels of sporting competition. A richer understanding of athletes' attitudes and their origins should have the potential to inform more effective anti-doping educational programmes. While testing and research play a central and high profile role in WADA's anti-doping strategy, their education programme is deemed central to fostering a lasting anti-doping culture in elite sports (WADA, 2009b).

Method

The present qualitative study followed the distribution of a questionnaire to 2000 UK athletes (McNamee et al., 2007). Twelve focus groups of talented young athletes (by athlete we mean sportsmen or sportswomen from a variety of sports, not merely track and field athletes) were held across the UK. The designation 'Talented' refers to the level of expertise or potential expertise. Most participants were either from the 'Talented Athlete Scholarship Scheme' (providing services to those athletes in

further or higher education), or UK Sport's own 'World Class Pathways', where funding levels correspond to anticipated success at major international competitions, with particular reference to the Olympic Games. Other participants not receiving state funding were in the main rugby or football players already attached to a professional club. The sample included young players who had already made professional appearances and an Olympic medalist.

We sought to invite only those athletes between 16 and 21 years. Ethical approval was granted by the Research Ethics Committee of the School of Health Science, Swansea University. Participants were provided with a full explanation of the project and information sheet, and all gave written consent. Groups were held in universities, or at the training site (in a suitably private room) in order to facilitate ease of participation. The population is notoriously difficult to recruit since they are highly focused on self-chosen goals and are not typically pre-disposed to participate in research that does not directly contribute to performance enhancement. Focus groups enabled in-depth discussion of issues identified as key from the questionnaire study, and allowed for interaction between athletes, as they compared and contrasted their attitudes towards performance enhancing substances in sport.

Our first method of recruiting athletes entailed contacting them directly to ascertain interest in the project and possible attendance at the group. This was possible only after some negotiation with research contractor: UK Sport. Considerable discussion was had in order to assure compliance with UK Data Protection legislation. The research team felt that any approach to athletes to solicit participation by the research contractor – who at the same time were responsible for both funding and anti-doping testing would have had the likely effect of producing very low participation. The research team felt it necessary that they were perceived to be working at arm's length from UK Sport or there would be a fear of leakage of the data that might compromise confidentiality. Groups organised in this fashion often included athletes from different sports within the same geographical area. Due to low initial response rates an alternative method was employed. Via personal contacts and snowballing techniques to garner appropriate gatekeepers, such as coaches, sport performance directors or others in authority at a squad/club/governing body, access and participation was facilitated though it was made clear to both athletes and those assisting in their recruitment that no information would be 'leaked' from the focus groups back to the relevant gatekeepers. A list of names from each gatekeeper, greater than the number needed for the focus groups, was ascertained so that we could select randomly those who would be invited to attend. In most cases this meant that the coach or gatekeeper did not know who finally attended the focus group.

40 athletes participated in groups held from October 2007 to January 2009. Group average size was just 3.33, group size ranged from 2 to 5, athletes at times withdrawing due to illness or other commitments (often in the hour before the scheduled time). The same research team (two male researchers) conducted all focus groups. Discussions ranged from 30 to 60 min. The group began with an 'ice breaker', asking athletes the extent to which they considered doping to be a problem in their sport. Researchers then loosely followed a schedule of questions but did so in a fairly open manner allowing the conversation to be dictated by the athletes. Discussions centred upon a range of themes concerning willingness to dope in hypothetical situations and the range of reasons offered against doping practices.

Methodological and research ethical challenges

Enabling a frank discussion of these issues required great effort to establish a trusting rapport, in light of the sensitivity of the topic.

Focus groups can be useful in attracting participants who would be reluctant to take part in a potentially intimidating formal one-to-one interview and facilitate interaction between members of the group. Kitzinger (1995) illustrates how focus groups can be suitable for the study of sensitive issues in the context of health research. Certain confident group members more willing to discuss 'taboo' issues, can pave the way for other group members to contribute (Kitzinger, 1994, 1995). This proved to be the case in the present study.

More generally the support and reinforcement of other athletes was intended to facilitate more relaxed and open discussion than might be the case in face-to-face or one-to-one interviews. A number of telephone interviews were also conducted with athletes as part of the project but elicited less detailed responses, and are not reported here. Athletes appeared happy to discuss their careers, and other peripheral issues, but discussion over willingness or pressures to dope, either hypothetically or non-hypothetically were more limited. One-to-one interviews failed to elicit anything other than staunchly anti-doping attitudes. Indeed the more varied and considered attitudes reported below can be viewed as providing tentative methodological justification for our use of focus groups.

Prior to the focus groups the interviewers went to considerable lengths to gain both the confidence and trust of the participants by establishing rapport which displayed their familiarity with the sports and their own credentials as researchers of sports. In some groups participants knew all members of the group, in others they did not. With respect to the latter, developing an atmosphere of trust was particularly critical. Moreover, in all focus groups particular emphasis was put upon the understanding of, and agreement to, Chatham House rules where the contents of the discussion would not be divulged by participants after the study or by the researchers except in an appropriately anonymised form. Although athletes signed an agreement to leave whatever was said in the room there, it had no legal force. Nevertheless, following Bringer (2002) it was hoped the athletes would feel obliged to do so by signing their agreement in addition to providing verbal assent. Athletes were also encouraged to use aliases when speaking of other coaches or athletes in their contributions.

While participants were aware that the research contractor was UK Sport, the interviewers assured participants that their responses would remain anonymous, and that the research contractor would not be aware of who attended the focus groups. This was of particular importance as most athletes were funded directly by UK Sport. The participants were assured any identifying characteristics would be removed from any quotations that figured in reports, further safeguarding their anonymity. Thus, in the results section below the specific sport of the participants is not identified. We refer only to whether the participant performed in a team or individual sports. There are, however, limits to the promise of anonymity and confidentiality in any research on so sensitive a topic (Lee, 1993). Failure to make this plain to the researched may undermine the validity of consent (McNamee, Olivier, & Wainwright, 2006). Thus participants were told that in the event of participants' reporting of illegal activity, such as possession or trafficking of controlled substances, researchers may be obliged to pass this on to the relevant authorities. Researchers utilised a 'light-hearted' method in stating this obligation, often saying 'so don't tell us!' in order to undercut any potential reticence. While the use of certain performance enhancing substances such as human growth hormone (see Evans-Brown & McVeigh, 2009) is a criminal act in France, Italy, Slovenia, and Sweden, the British Government has so far resisted pressure to criminalise doping. Importantly, it was made clear that if participant's themselves admitted doping, this information would not be passed on.

Analysis

Focus group discussions were recorded and transcribed. Transcriptions were analysed and coded with the use of QSR NVivo 8. Both researchers, present at all focus groups, were involved in the coding process.

Results

22 male and 18 female athletes from 13 sports participated in the research (mean average age = 19.6 years). The sample included eight swimmers; six football (soccer) players; five rugby union players; five wrestlers; four canoeists; three rowers; two athletes from gymnastics and two from athletics; with one athlete from each of the following sports – netball, modern pentathlon, diving, rugby league and cricket. The sample was, in the main, comprised of young athletes at the beginning of the elite stage of their sports careers. Due to the use of gatekeepers to stimulate initial interest, however, the pool from which athletes were selected occasionally included older athletes. Our sample included a 26-year old, a 29-year old and a 30-year old. Their international experience, however, helped stimulate discussion and provided a useful point of comparison.

The majority of athletes (21) were from UK Sport's World Class Pathways. This group included some with senior international experience, including the Olympic Games, although the majority were competing at junior international competition. Seven full-time club football or rugby players participated, some of which had international experience, representing their country within an age group. The sample included nine individuals on the 'Talented Athlete Scholarship Scheme', and a further three athletes whose funding level was unknown, or who were unclear as to their funding. Salient themes resulting from the discussions are presented below.

The extent to which athletes perceived there to be a doping problem

The athletes in general did not perceive the use of performance enhancing drugs to be a widespread problem on a national scale within their sport. There was, however, extensive reference to what was perceived to be a greater problem in some other countries, often associated with the perception that testing procedures were less stringent there than in the UK:

when we asked them [fellow athletes from other countries] where they've been they said like 'the mountains' and we said do you not have to give whereabouts forms? Cos, like we've all been tested these last few weeks and um they were like 'no . . . no whereabouts forms.' (female athlete individual sport).

This scepticism as to practices abroad, a form of sporting xenophobia, is not unique to British athletes and has been reported in interviews with elite Danish cyclists (Vest Christiansen & Møller, 2007). In light of a perceived disparity in doping regulations and practices one British athlete even went so far as to question whether it was possible to win 'clean': 'it is hard in [their sport] cos you think can you win a medal without drugs?' (female athlete individual sport).

Ethical reasons not to engage in doping practices

As expected in discussions of this kind a range of explanations were given as to why athletes would not use performance enhancing drugs:

like seeing stuff in the papers about people getting a medal stripped because they've done it and it's just not worth it, if you can't get there naturally then it's not, why do it? (male athlete individual sport).

Personal reasons against doping were often associated with ideas of 'natural ability', seeing the benefits of one's own hard work and the guilt that would be associated with success having doped.

Shame

Given that doping is widely perceived as contrary to the ethics of sports, unnatural, or inequitable, it would follow that being caught doping would be associated with social stigma and not merely sanctions restricted to sporting contexts. Athletes were not solely against doping because of their own attitudes about how success ought to be achieved. It is typically the case that guilt is conceived of as a moral emotion experienced after an act of rule breaking where one holds oneself responsible (Eisenberg, 2000; Hoffman, 2000; Tangney, Stuewig, & Mashek, 2007). Shame, by contrast, is typically understood not in terms of transgression but rather as the failure to live up to agreed social norms. It is thought historically to be a widespread moral norm in honour-based societies or communities (Morris, 1971). The relations between the two are dynamic and contested (Bear, Uribe-Zarain, Manning, & Shiomi, 2009). Shame is typically viewed by psychologists in a more negative light because of its more destructive force (Murphy, 1999; Tangney et al., 2007) while guilt is correlated with less reactive anger and aggression (Tangney & Dearing, 2002). Shame is thought by some to be particularly problematic when it is experienced without guilt. However, McAlinden (2005), in the context of rehabilitation with sexual offenders, argues that negative associations with shame may arise because of a failure to distinguish two varieties. Closely associated with retributive justice, disintegrative shaming is associated with ostracism and stigmatisation. By contrast, re-integrative shame may be valued positively as it affirms membership to a community who share the ideal that was fallen short of and is more closely associated with restorative justice (McAlinden, 2005).

Some of our participants felt the external pressures of social and moral expectation as an especially significant deterrent. It is clear that the shame they report, in anticipation of doping, belongs to McAlinden's re-integrative shame:

I wouldn't do it because, as I said looking on the podium and looking at other people and knowing that I'd beaten them because I'd done drugs. I couldn't do it, and it'd be letting down my family, it'd be letting down other people, I don't know, I'd just feel like a disgrace to my country and everything to be honest with you, I just wouldn't do it (male athlete individual sport).

For the athlete below the shameful nature of the act was magnified by the closeness felt to team mates and squad members, and by an understanding of the wider ramifications of a positive test:

there's a lot of pride in [sport] about um being as good as you are because of the effort you've put in through a very difficult technical sport, to kind of ya know cloud that effort in any way, um I think would be great shame to the athlete as well as to the whole team. I think cos it's such a close-knit community within [the sport] ya know if you found one of your heroes had been using performance enhancing drugs even within training you'd be very, you'd be very upset and it would damage the community a lot (male athlete individual sport).

One counter, however, to the idealised close-knit sporting environment portrayed above was reported as a response to a

commonly used question, asking what an athlete might think if hypothetically their friend or team mate was caught doping.

Male athlete individual sport 1: I would be disappointed with him but I'd still talk to him

Interviewer: that's it?

Male athlete individual sport 2: you wouldn't be like really (interrupted)

Male athlete individual sport 3: I've not killed your mum – 'I'd still talk to him'

Interviewer: that's really funny that is 'cos some people do feel like that. Some people feel like you've just shot their dog or something you know, they wouldn't talk to you, 'you've let us down'

Male athlete individual sport 4: it's an individual sport, I don't believe in that at all, definitely, it's completely individual. You'd only be letting yourself down though innit, when you get caught

Their response reveals no hint of powerful social mediators such as ostracisation or stigmatisation: the use of the vernacular – 'you'd be letting yourself down' – reveals an attitude that invokes neither shame nor guilt. These differences in view may be connected to the extent to which doping is stigmatised within the sport, or the sub-cultural variances of particular sports. A few athletes even appeared convinced that their role models were engaged in doping practices, and indicated evidence of doping practices at international competition. Such attitudes and experiences may contribute to the extent to which the doping of another is condemned. Clearly further research is required to disentangle the complex of guilt and the varieties of shame felt by elite sportspersons in relation to doping.

Pressure points in the decision to dope

Athletes did not consider themselves under any real pressure to dope, thus discussions as to potential pressure points were of a hypothetical nature. When asked about the extent of a doping problem in their sport, some athletes (without prompting) referred to a lack of financial incentive as a reason for there being little to no problem. Nevertheless, the motivation to dope may refer to the maintenance of current living standard, applicable for all those receiving some substantial form of funding:

I'll give an example, say for example a team says to a player, look you're a good player you're too small we're gonna have to release you out of a contract or whatever, obviously that contract's paying your mortgage everything else all your outgoings. I think that's probably . . . and er, if ever I did, you know, it's hard to say until you are actually in that position (male athlete team sport).

Injury was also acknowledged as a potential pressure point in hypothetical discussion. Participants responded to a hypothetical scenario proposed by the interviewer regarding the possible use of steroids to speed up recovery times, enabling participation at a major sporting event:

Male athlete individual sport 1: if you were two months away from the Olympic Games?

Male athlete individual sport 2: two months away from one of the biggest competitions in the world?

Male athlete individual sport 1: and you were like podium standard?

Interviewer: yep

Male athlete individual sport 1: and you tear your ligaments? Definitely be thinking about that

Interviewer: yep?

Male athlete individual sport 1: I would, I dunno about you guys, you can lie all you want, but I know all you lot would say 'yeah'

This athlete indicated a hypothetical willingness to dope in order to speed up recovery from an injury; if this allowed him to compete in the Olympic Games – 'I'm thinking about getting on the podium, d'ya know what I mean'. An important methodological point is also evident here. In the passage quoted above, an individual whom we perceived to be the most vocal athlete in the focus group, with a dominant personality, suggested that all athletes would be like-minded, and many did concur. His forthrightness effectively may have paved the way for other 'honest' responses. Alternatively athletes may have felt some pressure to concur. Thus while this degree of honesty could be interpreted as support for the research method employed, a degree of caution remains.

Hypothetical scenario: guaranteed success from anonymised doping

In an oft-cited example, Bob Goldman invited world class athletes (American weightlifters and competitors in field athletics) to consider whether they would take a 'magic drug' that would guarantee success for the next five years, but would cause death immediately thereafter. Goldman (see Goldman, Bush, & Klatz, 1984) reports that 52% (103/198) of the athletes asked stated that they would take the drug. We conducted a variant of this question asking if athletes would (a) take an illicit performance enhancing drug if it were undetectable and guaranteed success; and (b) whether they would do so under the same conditions with the addition that the drug would reduce their lifespan by 10 years. All focus group participants were invited to respond individually to these questions at the end of their session.

It is noteworthy that a significant minority, just under a third of respondents, expressed a willingness to take the hypothetical banned and undetectable substance that would *guarantee* success. Responses were at times difficult to pin down; some unsure, some said 'yes' at one point and 'no' subsequently. When the hypothetical scenario was revised to the effect that the substance would result in a 10-year lifespan reduction, almost all athletes rejected it outright. In their responses they prioritised the latter 10 years of their life over guaranteed sporting success and the associated rewards that Goldman's (American) respondents favoured. Contrary to the stereotype of the 'dumb jock', many athletes demonstrated a notable level of reflection and prudential projection on this matter. Some even referred to the value of seeing grandchildren grown up.

Athletes' concerns with the health implications of doping were not limited to this hypothetical scenario. Harms to health associated with doping were cited as a significant reason not to. Symbolism notwithstanding, elite sport is scarcely conducive to good health (Howe, 2004; Møller, 2008), though this fact did not impinge upon their perceptions;

But personally for me I don't think I would, um for health reasons more than anything. Um most things which you're putting inside your body which are illegal are either bad, are usually bad for you, for your body in general (male athlete team sport).

Some were quite clear on the health consequences that elite sport entailed and acknowledged their prioritisation of sporting success over health. Some simply pointed to ethical reasons for not doping as trumping concerns over harms to health. Others were less willing to acknowledge the health risks of their sport, suggesting that their level of expertise in body management helped protect against harm.

Discussion

There is limited research on attitudes and values of athletes toward performance enhancing drugs. The majority of studies in this field utilise questionnaire methods that negate 'rich' data. The use of focus groups fostered a willingness to speak candidly. Researchers made considerable efforts to emphasise the anonymity of athlete responses. While we have noted the need to interpret data with some caution, in case of athlete 'leading' of focus groups, and in light of the sensitive topic area, the reflective and diverse responses indicate potential for the development of this method in similar research. Themes such as the importance athletes attach to shame as a deterrent, the presence of economic temptations, or their willingness to utilise banned methods in certain hypothetical scenarios, are important findings that would not have been achieved via survey methods. Moreover, in phone interview data – conducted as a wider part of this project but not included in this report – not one athlete expressed a hypothetical willingness to take the 'magic' undetectable drug (McNamee & Bloodworth, 2009).

Focus groups certainly elicited more diverse and at times conflicting responses, yet the majority of athletes still reported a staunchly anti-doping stance. This may be of some comfort to sports governing bodies and international federations and agencies such as WADA. It may also reassure UK politicians anxious that drugs scandals do not mar the development of Olympic sports and their closely associated commercial sponsors. The suggestion that athletes some of whom are already competing at an international level have their doubts over the means some fellow competitors are using to improve performance brings an element of realism to this view. Our data were less stark than those reported by Laure et al. (2004) in a survey of French school athletes where 21% considered that the decision not to dope effectively relinquished all chances of 'becoming a great champion'. Nevertheless, scepticism as to the practices of other elite athletes, and the associated perceived inequity in anti-doping practices is a problematical trend for anti-doping authorities. The perception that competitors dope presents a potential pressure point for 'clean' athletes. This is supported by Petróczy (2007) who found that those who dope need not necessarily view the practice favourably and may consider it something of a necessary evil.

Many participants acknowledged enhanced injury-recovery and the economic rewards attached to elite sports as potential pressure points in hypothetical discussion. That these discussions remained hypothetical reflects that the majority of the sample had not experienced the greatest pressures such as career threatening injuries. Petróczy and Aidman's (2008) reference to 'exit points', at which an individual might contemplate doping, appears pertinent here. At certain stages of a career hypothetical possibilities become genuine tipping points; career-elongation, enhanced injury-recovery to secure a new contract. Some athletes were unwilling to consider that *any* future situation would impact upon their anti-doping attitudes. Others however, were more willing to acknowledge a possibility or temptation to use banned methods. For some this might reflect a more permissive attitude toward doping. Others continued to indicate that until one is placed under such a level of strain, it is difficult to predict one's choices.

Athletes offered a range of reasons against the use of performance enhancing drugs. Some centred upon personal feelings of guilt, shame and the wrongness of doping as both an unnatural and unfair enhancement of performance. Reasons against doping founded in concepts of 'natural' performance and the 'natural' human being have been criticised on the basis that 'natural' is a contested concept (Miah, 2004) and that a vast array of sports are dependent upon technological developments (Magdalinski, 2009) and supplementation for example. It is questionable, however, that we should reject altogether the role that concepts of 'natural per-

formance' and the 'natural human being' might play as constructs in athlete's thinking, purely on the grounds of their contestedness by scholars.

In general athletes communicated a strong anti-doping stance. Nevertheless, a significant minority of participants at least entertained the hypothetical possibility of doping in a thought experiment where the drug was guaranteed to ensure success and remain undetectable. Athletes were willing to admit to temptation, despite conflicting or ambiguous ethical standpoints in their own minds. No doubt the financial incentives associated with elite sporting success, cited as a potential tipping point by some, would also have weighed in this decision. In contrast to Goldman et al.'s (1984) polls, our athletes were very concerned about any reduction in life span arising from doping. Those willing to take the drug were dissuaded by the added caveat that this undetectable doping would reduce lifespan by 10 years. Perhaps most interesting was the ability and willingness to project their life stories forward to older age.

The salience of social sanctions and in particular the anticipated shame associated with doping and a positive drug test was a theme evident in focus group discussions. Re-integrative shame (McAlinden, 2005) could be an effective emotion to cultivate for those engaged in anti-doping policy and practice, relying as it does on the perception that moral opprobrium attaches to an action that fails to live up to a widely shared rule or norm. Clearly the effectiveness of such a stance would be compromised by salient sub-cultural norms where doping was not viewed negatively.

Classroom-based efforts to educate on anti-doping matters may hold significant potential. Such an environment may help to foster and mutually reinforce anti-doping attitudes. This face-to-face contact is more likely to be reinforced if an athlete can see other athletes engaging with and supporting anti-doping stances. Strong role models, in the form of high profile, successful 'clean' athletes, clearly already being used, may help to strengthen the force of the message.

Conclusion

There is a dearth of studies that address the attitudes of athletes toward performance enhancing drugs. One reason is that access to the population is extremely difficult. Another is the difficulty in getting athletes to open up to discussion with researchers on such a taboo topic. The majority of studies utilise questionnaire methods not conducive to 'thick' or 'rich' data. This study sought to extend beyond the common focus on doping prevalence to explore athletes' attitudes toward doping, their bodies, and the reasons offered against doping. This research provides a platform for academics and policymakers alike to investigate points of interest, in particular how the cultivation of shame might be a useful weapon in the fight against doping, and how the perceived inequities in doping testing might impact upon athletes' attitudes. More generally, this type of research has the potential to both inform and evaluate educational initiatives. Future research should consider the attitudes and values of athletes within a developmental context observing how these views and values evolve as an elite sporting career progresses.

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