

Tracking the Development of Attitudes to Doping: A Longitudinal Study of Young Elite Athletes

RESEARCH REPORT
April 2 2014



UNIVERSITY OF
CANBERRA



Tracking the Development of Attitudes to Doping: A Longitudinal Study of Young Elite Athletes

Anti-Doping Research Program

Research Report submitted to Australian Government
Department of Health

by

E. Terry Engelberg PhD (Griffith University)
Stephen Moston PhD (University of Canberra)
James Skinner PhD (Griffith University)

2 April 2014



Executive summary

Despite widespread recognition that prevention, rather than detection, remains the best strategy for eliminating drug use in sport, anti-doping research has typically studied only elite adult athletes. The importance of studying young athletes has been highlighted by the frequency with which drug use in young athletes has been observed. There is evidence suggesting that athletes as young as 12 years of age use performance enhancing drugs, and that such use has increased in the past decade. Research has also suggested that individual characteristics of athletes (such as level of moral development) and the social environment are possibly important predictors of both usage of, and attitudes towards, performance enhancing drugs.

If anti-doping campaigners can identify dopers before they engage in such behaviour, then it may be possible to prevent future misconduct. However, one of the biggest challenges for anti-doping administrators is *how* to deter young athletes from doping. Whilst anti-doping interventions should be targeted at all young athletes, it is possible that the limited resources given to such efforts, could be more effectively utilised if those athletes most at risk of doping could be identified and anti-doping efforts tailored to such individuals.

It has been argued that previous research on attitudes towards drugs in sport has typically suffered from a number of recurring methodological and theoretical limitations that have hindered the integration of this growing body of work. One of the most significant problems is that research has typically employed cross-sectional designs, which hinders efforts to understand the causative relationship between variables, such as personal characteristics and anti-doping attitudes.

The current study utilises a cohort-sequential method (also called a longitudinal-sequential design). In this design each participant completed a questionnaire three times (once each in 2011, 2012 and 2013). A key advantage of this design over a cross-sectional design is that changes in attitudes and behaviours can be tracked within individuals, rather than inferring change between groups.

The study aims to assess the incidence of PED use in a large sample of young elite athletes (aged 12 to 17 years at the commencement of the study) and to identify the antecedent demographic and psychological characteristics that underpin such behaviour. For the purposes of this study 'elite athlete' means an athlete participating and competing at regional level or above (including state level, national and international level)

The project represents a significant methodological advancement in Australian research on anti-doping. Longitudinal research is often critical to understanding the trajectories of individual life histories and the dynamic processes that underlie such change. As anti-doping efforts inevitably intensify in the coming years, a need for consistent data from different points in time will become increasingly important in showing the efficacy of anti-doping initiatives.

There were 697 participants in wave 1, 606 were retained for wave 2, and 538 for wave 3, giving an overall retention rate of 77.2%. A total of 938 unique participants were included in the study.

From the longitudinal part of the study key findings included:

- PED use by elite (adult) athletes was estimated at just over 30% (of all athletes)
- Cycling emerged as the sport most strongly associated with doping
- The perceived disadvantages of PED use showed a change away from health related problems towards punishment and ethical (cheating) issues.
- Across all waves of the study, the participants suggested severe sanctions for PED use, including both fines and bans (of about 4 years duration).
- Attitudes towards PEDs were consistently negative, across all age groups and waves
- Most athletes had little knowledge of how to obtain information about PEDs, with coaches being identified as a leading source of information.
- Awareness of both ASADA and WADA was generally very low, until the final wave when awareness of ASADA increased substantially.
- Only a minority of participants believed that their teammates or coaches would approve of PED use
- About 5% of participants (each wave) stated that they intended to use PEDs to improve their sporting performance

- About a quarter of wave 1 participants, and more than a third of wave 2 and 3 participants, intended to use sports supplements
- Overall, 3.7% of the participants in wave 2, and 2.8% in wave 3, stated that they had previously used PEDs to improve sporting performance
- Overall, 2.8% of those in wave 2, and 4.0% in wave 3 stated that they had used PEDs to enhance appearance
- From the wave 3 participants, 2.7% overall believed that members of their own team or squad used PEDs, and that 8.8% of players or athletes they competed against were also users
- Intention to use PEDs was predicted by level of moral functioning (both judgement and intention), and by two mechanisms of moral disengagement.
- Intention to use PEDs was (negatively) associated with a focus on skill acquisition in sport.

In each year of the study additional samples of 12 year old participants were recruited, allowing an analysis of data from three equivalent samples at three points in time. Key findings from this part of the study included:

- Perceived incidence of PED use in all sports (just over 30%) remained consistent, however perceived incidence in own sport peaked in the second wave
- The percentage of athletes aware of others using PEDs was at its highest (12.6%) in the second wave
- Awareness of ASADA increased markedly in wave 3 (from 1.3 to 21.1% of participants); awareness of WADA did not change
- In the second wave there were eight new PED users (5.3% of the cohort for that year)
- In the third wave there was only a single new PED new user

The demographic and psychological characteristics of athletes who stated that they had used PEDs were compared to those who had not used PEDs.

- 29 users of PEDs were identified from the second wave of data
- The incidence rate of PED use (wave 2) was 3.8%

- There were few demographic differences between PED users and non-users
 - Males were more likely to use PEDs than females
- The awareness and experience of PED use in sport differed between the groups
 - Users were more likely to have been offered PEDs
 - Users were more likely to know of other PED users
- The attitudes and opinions of PED users differed markedly from those of non-users
 - Users saw the incidence of PED use in sport as much higher
 - Users expressed more pro-PED use attitudes
 - Users were more likely to believe that their teammates would support the use of PEDs
 - Users were more likely to believe that their coaches would support the use of PEDs
- The level of moral functioning of PED users was lower than that of non-users

Overall, the study shows that PED and supplement use (a potential precursor of PED use) are now relatively prevalent amongst young elite athletes. Both anti-doping education and detection efforts must be expanded to incorporate such populations. Given that young athletes are only rarely subject to anti-doping testing, the potential proliferation of PED use is largely going unchecked.

In order to be effective, anti-doping education must acknowledge and address the prevailing perceptions about the widespread use of such drugs. Sports where doping is perceived to be common and also feature large numbers of junior participants (e.g., cycling, athletics, and rugby league) should probably be targeted first. It is also possible that education campaigns that focus on moral education might positively impact on subsequent doping behaviours, although any such messages would need to be reinforced throughout the sporting industry, including support personnel such as administrators and coaches.