

DOPING IN YOUNG ATHLETES: INCIDENCE AND ANTECEDENTS

Terry Engelberg, Griffith University, Australia

(T.Engelberg@griffith.edu.au)

Stephen Moston, University of Canberra, Australia

James Skinner, Griffith University, Australia

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 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. 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 demographic and psychological characteristics that underpin such behaviour.

Despite widespread recognition that prevention, rather than detection, remains the best strategy for eliminating drug use in sport (Morente-Sanchez & Zabala, 2013), 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 (Lucidi, Grano, Leone, Lombardo, & Pesce, 2004). 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 (Gucciardi, Jalleh, & Donovan, 2011).

The study utilised 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. Participants were recruited from the three high schools. All children (non-athletes and athletes) completed the survey in wave 1. This approach meant that the sports featured would be a broadly representative selection of those played by high school aged athletes, rather than adopting a sports specific recruitment strategy. There were 697 participants in wave 1. Of these 606 were retained for wave 2, and 538 for wave 3, giving an overall retention rate of 77.2%. The data were primarily analysed by cohort, with additional analyses exploring the links between demographics (age, gender, ethnicity, sport, etc.) also conducted.

The study found that 3.8% of young elite athletes are using PEDs. Users see such drugs as highly prevalent in sport and that their teammates and coaches support their use. Only one of the PED using athletes had taken an anti-doping test. About a third (35.1%) of all athletes (PED users and non-users) are using sports supplements, which Rees, Zarco, and Lewis (2007) had suggested may be a precursor of steroid use.

PED users and non-users, showed few differences in terms of demographic characteristics, but several strong psychological differences were observed. These psychological differences, which centred on aspects of morality (both moral functioning and moral disengagement), were also found to distinguish between those intending/using and those not intending/using PEDs. The results showed remarkably few differences between the attitudes and opinions of the youngest and oldest participants. At age 12 the athletes expressed views that were essentially the same as their older counterparts. There were however some differences by gender and sport.

There were several changes across the waves of the study, with marked changes in views on the disadvantages of PEDs and a much greater awareness of ASADA. This undoubtedly reflects the intensive

media coverage of PEDs in the period between waves 2 and 3, when the 2013 Australian Crime Commission report of performance and image enhancing drug use in sport was released, Lance Armstrong confessed to doping, and major investigations of drug use at rugby league and AFL teams were initiated.

Overall, the study shows that PED and supplement 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.

References

- Gucciardi, D.F., Jalleh, G., & Donovan, R.J. (2011). An examination of the Sport Drug Control Model with elite Australian athletes. *Journal of Science and Medicine in Sport, 14*(6), 469-476. doi: 10.1016/j.jsams.2011.03.009
- Lucidi, F., Grano, C., Leone, L., Lombardo, C., & Pesce, C. (2004). Determinants of the intention to use do in substances: An empirical contribution in a sample Italian adolescents. *International Journal of Sport Psychology, 35*(2), 133-148.
- Morente-Sanchez, J., & Zabala, M. (2013). Doping in sport: a review of elite athletes' attitudes, beliefs, and knowledge. *Sports Med, 43*(6), 395-411. doi: 10.1007/s40279-013-0037-x
- Rees, C.R., Zarco, P.T., & Lewis, D.K. . (2007). Intermediate and high school students' attitudes toward and behavior regarding steroids and sports supplements use: The mediation of clique identity. Final Report. . Montreal: World Anti-Doping Agency.