Sports people behaving badly: The use of licit and illicit drugs

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Athletes use drugs for a variety of reasons – some intentionally for medical or recreational purposes, and some inadvertently.

Some athletes will use drugs deliberately - either on their own initiative or at the behest of others - to cheat, to gain an advantage over others by artificially improving their advantage in order to win.

Some sports people use drugs, including both legal drugs, such as alcohol, as well as illegal drugs, recreationally.
Drug use in sport continues to change. The drugs favoured by coaches and athletes are subject to fashion and to efforts by the unscrupulous and sophisticated to avoid detection.

Recreationally, there is another question, do athletes disproportionately misuse alcohol and other social drugs compared with their non-athlete counterparts?
This presentation:

- Reviews the literature surrounding substance use and sport with reference to the models which underpin alcohol and other drug use and the expectations of competitor, sponsor, media and spectator

- Considers the role TCs are playing in working with athletes with AOD problems; and

- Provides information on how the APS is responding particularly to the issue of illicit drug use.
Drugs most usually in the news in relation to sports = performance enhancing drugs (PED).

Earliest record of athletes using PED dates back to 668 BC in the Ancient Games Erotokritou-Mulligan & Sonksen, 2009).

Use in modern times often related to gaining competitive advantage or to rehabilitate from injury (Petroczi & Aidman, 2008).

High profile cases particularly in cycling (Tour de France), major league baseball in US, Olympic athletes and (closer to home) AFL and NRL players.
Emergence of drug use as a problem in sport

* Practice of enhancing performance through foreign substances or other artificial means is as old as competitive sport itself –
  * Ancient Greek athletes were known to have eaten special diets and taken stimulating remedies to fortify themselves.
  * In the 19th century, amphetamines and drugs such as caffeine, cocaine, strychnine and alcohol were most commonly used by cyclists and other endurance athletes.
During the 1904 Olympic Games, Thomas Hicks ran to victory with the help of raw egg, injections of strychnine and doses of brandy administered to him during the race.

- 1920s: doping made a formal violation of the rules and considered cheating
- 1960s: steroids were becoming widespread in the United States and Europe.
- 1980s: number of high profile drug (e.g., Ben Johnson, 1988)
Research suggests primary physiological reasons for athletes’ doping are:
- Gaining competitive edge on competitors
- Increasing muscular strength and endurance

Psychological motives include:
- Pressures to win and perform at high level
- Improve body image
- Personal desire to do well (Ehrnborg & Rosen, 2009; & Aidman, 2009).
The 2007 International Literature Review: Attitudes, Behaviours, Knowledge and Education – Drugs in Sport: Past, Present and Future, prepared for the World Anti-Doping Agency (WADA) by the Carnegie Research Institute of the Leeds Metropolitan University, examined:

(1) predictors and precipitating factors in doping,
(2) attitudes and behaviours towards doing, and
(3) anti-doping education or prevention campaigns.

Review examined attitudes amongst elite and college (university) athletes; school children; bodybuilders, powerlifters and gym users; medical professionals; coaches and support staff; and the general public.
Elite Athletes

* Self-report questionnaires producing higher numbers with consistent evidence of doping behaviour or perceived behaviour of team mates
* Generally show elite athletes hold negative views on doping and support drug testing programs (Backhouse, McKenna, Robinson & Atkin, 2007)
* Consistent evidence of doping behaviour

* Motives primarily concerned with:
  * Maintaining or improving social functioning physical functioning
  * Coping with social or psychological pressures
  * Striving for social or psychological goals
  * Subject to unique pressures (media, sponsors, spectators) as well as huge opportunity for financial reward

➢ Education and support to cope with pressures
Bodybuilders, Powerlifters & Gym users

- Evidence suggests majority are knowledgeable and believe use achieves desired effects.
- Detrimental consequences outweighed by perceived benefits
- Mistrust of medical fraternity
- Values of subculture:
  - Social reinforcement where body shape resembles that desired by community
  - Increased sense of belonging, recognition and acceptance
  - Vilified by perception their drug use like other recreational use
  - Describe use in positive terms
Extent of doping

• Estimations on doping based primarily on number of positive tests, self-reported drug use with direct questioning, and questionnaires about doping by other athletes.

• Although both accuracy of tests and number of tests conducted each year has increased, rate of adverse analytical findings has remained constant at around 2% annually (Pitsch & Emrich, 2012).
• Gross underestimation – low number of test compared with numbers competing internationally (Mottram, 2005), availability of tests for new and emerging drugs (Yesalis et al., 2001), ability to ‘beat the system’ (expert advice of doctors and sports physicians) (Waddington & Smith, 2009)

• Different sports and different populations yield different results
  – Steroid usage prevalence of 77.8% amongst bodybuilders (Blouin & Goldfield, 1995)
  – Non-competing bodybuilders – 20% (Houlihan, 2002)
Recent Australian study (Dunn et al., 2009) investigated substance abuse among elite Australian athletes

- 974 athletes were surveyed from a range of sporting organisations, such as rugby league, athletics, diving, and netball

**Findings:**

- 1/5 reported “lifetime use” of cannabis
- 1 in 10 had tried Ecstasy at some point in their life
- Lifetime use of an illicit drug ranged from 0.8% (GHB) to 21.0% (cannabis)
- Past-year use of illicit drugs was low at 0.2% to 3.7%
- 16% indicated Ecstasy, alcohol, cocaine, steroid and cannabis as DOC
The extent of the problem

• Results positive, considering 32.5% (n=317) of sample indicated that they had been offered, or had the opportunity to use, at least one illicit drug in the past year (Dunn et al., 2009)

• Overall, athletes’ self-reported use of illicit substances was lower than that of the general population

• Cross-sample of elite Australian athletes found that vast majority perceived that at least some athletes in their sport had ever used or currently use illicit drugs (Jalleh & Donavan, 2008)
The extent of the problem

- 29% English football players believed that illicit drugs were not used by players
- 45% indicated personally knew players who used recreational drugs
- Use of illicit drugs reported as more widespread than performance enhancing drugs (Waddington et al., 2005)
Who cares about the risk?

• 1997 Sports Illustrated interviewed a cohort of elite Olympic athletes and posed the question:
  – "If you were given a performance enhancing substance and you would not be caught and win, would you take it?"

• 98% of the athletes responded "Yes".

• More alarmingly, over 50% of participants responded “Yes” to the question:
  – "If you were given a performance enhancing substance and you would not be caught, win all competitions for 5 years, then die, would you take it?"
In Australia, alcohol is a significant problem amongst the general population.

Part of Australian sporting life, especially in sporting cultures where it is common for a beer after the game, or an end-of-season team trip where binge drinking is part of the culture.

Research has found that sport has a positive influence on adolescents’ use of alcohol and other social drugs.

However other studies have shown that involvement in sport as an adult may actually encourage greater intake of alcohol.

The full extent of the illicit drug problem in sport is not known.
The extent of the problem

• Little research investigating the determinants of illicit drug use in sport, particularly at the elite levels

• Major research has focused on banned performance-enhancing drugs, with little emphasis on illicit drug use for recreational purposes

• To date, the predominant view on doping holds to an implicit assumption that licit and illicit drug use by athletes follows the same principles as the general population
In seeking to explain drug-use behaviour among athletes (as a sub-population of all drug users), a number of theories (or models) have been devised.

Some stem from evidence on licit and illicit substance use outside of sport, and provide some conceptual background for athlete substance abuse (e.g. the social cognitive model and the lifecycle model).

Some have arisen from the sociological and pharmacological domains and others have arisen from data specifically relevant to the sporting context (e.g. the grounded model).
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<tr>
<th>Theory or Model</th>
<th>Brief Description</th>
<th>Reference</th>
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<tbody>
<tr>
<td>Technological explanations: the pharmacological revolution</td>
<td>Increase largely explained by the improvements in chemical technology</td>
<td>Mottram (1988, 2005); Verroken, (2005); Donohoe &amp; Johnson (1986); Coakley and Hughes (1994, 2007a)</td>
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<td>The hypothetical life-cycle model</td>
<td>Characterised by (a) combination of trait, systemic and situational factors (b) developmental approach &amp; (c) the assumed outcome expectancy leading to functional use of performance enhancing substances by athletes</td>
<td>Petrockzi &amp; Aidman’s (2008)</td>
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<td>The deviant overconformity framework</td>
<td>Drug seen as a deviant overconformity. Use by athletes expresses acceptance &amp; overconformity to key values, (e.g., value of winning)</td>
<td>Coakley and Hughes (2007b)</td>
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<td>Marxist theory</td>
<td>Drug use indicative of alienation of individuals (i.e. athletes) in modern capitalist societies</td>
<td>Luschen (1993, 2000)</td>
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<td>Mertonian approach to deviance</td>
<td>A typology of behaviour based on cultural goals and institutional norms</td>
<td>Merton (1957)</td>
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<td>Theory of differential association</td>
<td>Network of relationships between users and suppliers. <strong>Use of illicit drugs ‘is performed as part of a deviant subculture, or ‘secret societies’.</strong> Sub-culture of drug-using athletes, and suppliers of drugs; coaches, physicians and other members of the ‘doping network’</td>
<td>Sutherland and Cressey (1974)</td>
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<td>Socio-psychological game models</td>
<td>‘Doping game’ models regard drug use in sport as ‘a decision dilemma’, and <strong>moral dilemma</strong>. Athletes may have different values but are thought to think and act rationally to maximise best outcomes for themselves</td>
<td>Breivik’s (1987, 1992)</td>
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<td>Sporting careers, biographical risks and doping</td>
<td>Suggests <strong>life involves risk</strong>, athletes are also subject to <strong>special circumstances</strong> that don’t appear in other social sectors, a to comparable degree in elite sport of an earlier period. Identifies <strong>typical risk factors of athletic careers</strong> and suggests that <strong>drug use can be seen as a coping strategy that grows out of these specific risks</strong></td>
<td>Bette (2004)</td>
</tr>
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The Hypothetical Life Cycle Model of Doping

- Interacting effects of personality, systemic and situation factors across the lifespan

- Model based on a developmental approach and expectancy theory, which suggests that the assumed outcome will lead to the functional use of performance enhancing substances by athletes (Petrokzi & Aidman, 2008)
The Hypothetical Life Cycle Model of Doping

- Personality Factors
- Systemic Factors
- Situational Factors
- External Events (i.e., availability of a new PE method or test)
What is APS doing?

- Australian Government $20.1 million Illicit Drugs in Sport (IDIS) - National Education and Prevention Action Plan to help tackle illicit drug use in sport and in the broader community.

- Under the Government’s $20.1 million IDIS Action Plan:
  - Professional and non-professional sports will have access to Government funded education programs targeted at elite athletes, coaches and sport administrators.
  - Sport role models will help deliver community education and prevention initiatives about the harms associated with illicit drug use at a community level.
  - National Sporting Organisations can apply to the Australian Government to help conduct out of competition testing for illicit drugs and result management.
  - An evidence base will be developed through ongoing research.
The Rehabilitation and Counselling component of the plan aims to ensure the highest level of support and rehabilitation is available to athletes identified to have engaged in illicit drug use.

Under the Plan sports have been provided with referral advice to appropriate expertise to assist in counselling and rehabilitation measures for any athletes in this situation. Given the links between substance abuse and mental health, this will include, where appropriate, mental health agencies.

Development of an online education and training package on treatment of illicit drugs in sport issues to support the implementation of the program.
Objectives of the education and training program component

[*Module 1 (Illicit Drugs in Sport) – core education and training module: Targeted to psychologists who might be involved in working with sports people who have been identified or self identified as having a problem with illicit drugs in relation to their sporting activities*

[*Module 2 (Illicit Drugs in Sport) - specialist education and training: Targeted to psychologists with experience working in the alcohol and other drug area. This training focuses on specific treatment issues related to sports people and illicit drug use*

[*The total number of registrants for IDIS as of 30/08/13 was 767. This broke down to 730 funded (free) places and 37 fee-paying places.*
The Australian Government is working with National Sporting Organisations to develop a greater awareness of the dangers of illicit drugs and the impact they have on our athletes and the broader community.

Through the government's Illicit Drugs in Sport Program, the APS was funded to provide education and training on the provision of psychological treatment services to athletes identified as having an illicit drug use issue.

Online training for psychologists

The Illicit Drugs in Sport online professional development course aims to provide psychologists with foundational knowledge to better understand the complexities around the use of illicit drugs in the world of sport, and thereby allow psychologists to support those athletes in need of counselling and rehabilitation. It seeks to equip learners with evidence-based information regarding the most effective delivery of interventions used in the AOD field (specifically with athletes) and to familiarise participants with clinical issues commonly observed in this sub-group.

For some participants the course provides an opportunity to update current knowledge in the area of illicit drugs in sport. For others, it may act as a timely refresher in a flexible and accessible way. Access to video recordings of simulated therapy sessions and opportunities to engage in online forums with fellow practitioners will also contribute to the learning experience.

Online training is available free of charge until the end of February 2012.

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Determinants of drug use behaviour amongst athletes

- Behavioural, physical, psychosocial, and contextual/environmental factors
- These include:
  - Coping with pain, weight control, recovery, physical image, assist with performance demands
  - Personality, stress, anxiety, coping mechanisms, perceived benefits, self-efficacy & self-confidence, social support, personal problems, mental health
IDIS Project

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Objectives of the education and training program component

- Develop an online education and training package on treatment of illicit drugs in sport issues to support the implementation of the program
- Promote and deliver the training programs to APS members with existing substance abuse qualifications and other providers

Reference Group Members from APS –
- Lynne Magor-Blatch (Chair), ATCA and University of Canberra
- Stefan Gruenert, CEO Odyssey House, Victoria
- Debra Rickwood, University of Canberra and Headspace
- Melissa Norberg, NDARC
- Geoffrey Paull, Counselling Psychologist
- Tracey Veivers, Sports Psychologist
Training Modules

• **Module 1 (Illicit Drugs in Sport)** – *core education and training module*: Targeted to psychologists who might be involved in working with sports people who have been identified or self identified as having a problem with illicit drugs in relation to their sporting activities.

• **Module 2 (Illicit Drugs in Sport)** - *specialist education and training*: Targeted to psychologists with experience working in the alcohol and other drug area. This training focuses on specific treatment issues related to sports people and illicit drug use.

• As a result of the training, psychologists identified in all States and Territories with specialist counselling skills and trainers to provide training to athletes, coaches and sporting clubs.
Illicit Drugs in Sport

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www.psychology.org.au/IDIS

Further information

For further details about the Illicit Drugs in Sport initiative please contact the APS by either an email to indisupport@psychology.org.au or by calling 03 8652 3378.