Performance enhancing drugs and sports

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Abstract
This study aims to analyze the use of PEDs or doping in the world of sports. Drugs allow for harder and more frequent workouts. Most of the athletes don’t use drugs for competition, they use them for training, allowing them to handle a workload others will find impossible. The physiological changes that allows to make them capable of higher performances. The facts that it speeds up recovery and stimulates protein synthesis are very attractive to athletes of all ages, but especially to those nearing the end of their professional careers.

Keywords: Doping, drugs, world anti-doping association (WADA), performance-enhancing drugs (PEDs)

Introduction
Doping in sport, defined as the presence of a prohibited substance or its metabolites or markers in an athlete’s sample, or evidence of the attempted use or use of a prohibited method, appears to be widespread (Pitsch. W, Emrich. E.). Performance-enhancing drugs are not unique to modern athletic competition. Mushrooms, plants and mixtures of wine and herbs were used by ancient Greek Olympic athletes and Roman gladiators competing in Circus Maximums dating back to 776 BC. Various plants were used for their stimulant effects in speed and endurance events as well as to mask pain, allowing injured athletes to continue competing (Landry, G.L. and Kokotaio, P.K).

Doping has been around for centuries, but anti-doping measures first arose in the 60s, according to Dick Pound, former president of the World Anti-Doping Association (WADA). “Testing started at the 1968 Olympic Games,” Pound recalls, but the science was far from perfect. Eight years later, at the 1976 Olympics, East Germany won a suspiciously high number of gold medals—40 in total—with the swim team winning 11 of 13 events. The feat was whispered about everywhere, from the Olympic village to the global media, but it wasn’t until 1991 that the former East German coaches admitted to widespread steroid use and blood transfusions. Many of the athletes (a number of whom were teenagers at the time) denied that they knew they were doping. Some revealed health issues they had as adults due to steroid use—and a few were eventually compensated.

The Chinese weren’t any good at swimming—until 1992. Then, all of a sudden, at the Summer Olympics in Barcelona, the women’s swim team won 4 gold medals. Then, at the 1994 World Championships, they won 12 of 16 women’s titles. Needless to say, people got suspicious. Sure enough, 11 Chinese women swimmers tested positive for di-hydro-testosterone at the 1994 Asian Games, and the jig was up. But when the team won only 1 gold at the 1996 Olympics, they decided to give doping another try…and so they were caught again before the 1998 World Championships. This time there were 4 positive tests and a vile of HGH in one swimmer’s luggage.

Despite increasingly advanced testing, cheating athletes have slipped through the cracks—for a while at least—like Marion Jones, who in 2007 admitted to doping and dramatically gave back her five Olympic gold medals from the 2000 Sydney Games. Regina Jacobs, a middle-distance runner, competed in three summer Olympics before her career was ended by the dark shadow of steroids in 2003.

Doping Timeline
1968: Drug testing begins at the Winter Olympic Games in Grenoble, France.
1991: A former East Germany swim coach admits to systematic doping of the team.

1994: British runner Diane Modahl is suspended from competition following a positive urine test; she unsuccessfully protests, citing improper handling of the sample.

1999: World Anti-Doping Association (WADA) is established.

2003: Middle-distance runner Regina Jacobs retires after three Olympic Games and one drug test—which was positive for steroids.

2004: Sprinter Kelli White is stripped of her two World Championship gold medals for testing positive for steroids.

2007: Track superstar Marion Jones admits to doping during the 2000 Sydney Olympic Games and is sentenced to prison a year later due to check fraud.

2014: Three-time Chicago Marathon winner Liliya Shobukhova receives a two-year ban from the Russian Athletics Federation for abnormalities discovered in her biological passport.

Doping Today
All elite runners cross paths with the option to illegally increase their chances of success. Authorities agree—doping is not going away anytime soon. “Performance-enhancing drugs are a serious concern in both men and women sports at all levels of competition,” says Annie Skinner, spokesperson for the United States Anti-Doping Association (USADA). Some drugs are seen across all sports and genders. “In general, anabolic agents, stimulants, growth factors and beta-2 agonists are among the most commonly seen prohibited substances,” Skinner explains. “In endurance sports, substances like erythropoietin (EPO) and methods like blood transfusions can also provide a tremendous advantage, as they allow for increased oxygen to the muscles.”

All of these drugs allow for harder and more frequent workouts. “Most cheaters don’t use drugs for competition; they use them for training, allowing them to handle a workload others will find impossible. The physiological change that’s allowed makes them capable of superior performances,” says Fleshman. This makes testing only during competition relatively ineffective.

Doping and India
It’s been an open secret in Indian sports. So when news emerged that India ranked 3rd behind Russia and Turkey in a 2013 WADA report, it didn’t really come as a surprise. Doping is a malaise that has afflicted Indian sports for far too long. The statistics in report are damming. Over 91 Indian athletes from various different sporting events have failed dope tests. While the vast majorities are track and field athletes (30), the other sports involved included weight-lifting, wrestling, power-lifting, bodybuilding, judo, boxing and various others. And even cricket is on that list.

In 2010, Indian athletics was at an all-time high. The Indian female contingent had won successive gold medals at the 2010 Commonwealth Games and the 2010 Asian Games in the 4X400 m relay event. It was a proud moment. But things soon came crashing down, when it emerged that three members of that relay team, Ashwini Akkunji, Mandeep Kaur and Sini Jose, all tested positive for a banned substance. All of them were banned for two years by the Court of Arbitration for Sport. It was particularly hard blow for Akkunji, who had received public vilification after her feats in 2010. It was Yuri Ogorodnik, the coach of that team, who took the fall. He declared that it was he who had given the girls those supplements, since they had run out of supplements provided by the Sports Authority of India (SAI).

Discussion
On the basis of above information the main part of discussion is why athletes use PEDs. Athletes are using PEDs to extend their careers by up to one to two years. The facts that it speeds up recovery and stimulates protein synthesis are very attractive to athletes of all ages, but especially to those nearing the end of their professional careers. Playing an extra year or two can be worth millions of dollars to a professional athlete. The thing which comes out is the fact that most of these athletes were not aware. They just take what their coaches give them and also the pressure of competition.

Conclusion
Drug abuse in athletes is a significant problem that has many potential basic causes. The drive to be the best in sport dates to ancient times, as does the use of performance-enhancing substances. With the ever-mounting pressures faced by athletes, it is not surprising that drug abuse by athletes exists across essentially all sports and age groups.

1. Trainers, coaches, and health care providers should provide evidence-based, safe alternatives to PED use, including optimal nutrition, weight-training strategies, and psychological approaches to improving performance, all of which may help with athletes’ confidence in their natural abilities.

2. If providers become aware of an athlete using PEDs, they should educate the athlete about the potential risks of continued use, regardless of any evidence that suggests this may not be influential for all athletes. Providers should encourage discontinuation of the abused substances.

3. The efficacy of education about PED use as a preventative measure needs further study. Early integration of well-designed prevention curricula into sports programs may be beneficial. However, as alluded to earlier, at least one preliminary study suggests that educational programs that solely emphasize the negative effects of PEDs may be ineffective for young athletes.

4. Research should examine differences in treatment approaches that may be needed for athletes who have been using drugs for a shorter versus longer period of time.

5. Mental health professionals should be included in the network of team doctors and other health care providers readily available to athletes. Psychiatrists are often helpful in developing strong drug prevention policies that emphasize education and treatment and not just sanctions. Mental health care professionals should have a year-round presence with the athletes and teams with whom they are working so as to build trust.

References


