

## Fair Is Fair Or Is It? A Moral Consideration Of Drugs And Doping In Sports

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### ABSTRACT

Doping represents one of the most persistent ethical challenges in modern sport, raising fundamental questions about fairness, health, and the spirit of competition. While global literature on performance-enhancing drug (PED) use is extensive, the Indian sporting landscape presents unique socio-cultural, economic, and systemic dimensions that remain underexplored. This paper examines the moral dilemma of doping through the dual lenses of fairness and pragmatism, with particular reference to the Indian experience. Drawing on attitude research, deterrence theory, and risk-factor models, the review establishes that although the overwhelming majority of athletes verbally oppose doping and affirm belief in clean competition, a complex interplay of pressures intense desire to win, fear that rivals are doping, economic incentives (scholarships, sponsorships, and national glory), career instability, peer influence, and perceived shortcomings in detection creates powerful situational temptations. India's consistent ranking among the top three nations in WADA-reported Anti-Doping Rule Violations (117 cases in the latest available cycle, placing it third after Russia and Italy) underscores that doping is not merely a Western or elite phenomenon but a growing concern across Indian disciplines, notably athletics, weightlifting, bodybuilding, and power sports. The moral core of the debate "Is fairness absolute, or is 'fair' relative when systemic inequities and survival pressures are at play?" is interrogated against the Indian reality: underfunded training systems, late talent identification, limited international exposure, and a cultural premium on medal-winning as a route out of poverty. When medals can transform socio-economic destiny and when athletes perceive that competitors (domestic and international) may be using banned substances with impunity, the traditional appeal to an abstract notion of "fair play" can ring hollow. The paper further highlights the limitations of the current sanction-based, detection-driven anti-doping model, especially in a resource-constrained environment where sophisticated doping (e.g., micro-dosing, gene doping, designer steroids) increasingly evades testing while honest athletes bear disproportionate scrutiny. Prevention-based deterrence through values education, coach-athlete relationships, and structural reform is proposed as a more culturally resonant and sustainable approach for India.

**Keywords:** Drugs, Doping, Sports, Athletes, India

**How To Cite This Article:** Singh S, Kumar R, Sehrawat V, Kumar S, Singh B, Kaur G, Muqarram M, Dhadwal Mk, Sahu M. Fair Is Fair Or Is It? A Moral Consideration Of Drugs And Doping In Sports. *Int J Drug Deliv Technol.* 2026;16(25s):1010-1021. Doi: 10.25258/ijddt.16.25s.120

## INTRODUCTION

Most serious athletes feel a strong drive to win. They often dream big too. Some athletes want to play for professional sports teams. Others want to win medals for their countries. The pressure to win leads some athletes to use drugs that might give them an edge. Attitudes of Athletes Towards PED Use and Drug Testing. One's attitude toward a given issue or entity can be influenced by personality traits, prior experiences, environmental factors, and the characteristics of the attitude object (McGuire, 1985). In a study by Alaranta et al. (2006), over 90% of athletes believed that sport performance could be improved by using banned substances. However, the vast majority of athletes opposed doping. Almost all athletes (96.9%) believed it was possible to reach the top of their sport internationally without doping. In the same study, the authors found that the risk of doping appears to be highest in speed and power sports and lowest in sports emphasizing motor skills. Diacin, Parks, and Allison (2003) conducted interviews with NCAA Division I and Division III male athletes to measure their attitudes toward drug use and drug testing. The athletes were asked open-ended questions rather than using an ordinal instrument, so that a more complete understanding of their opinions could be gathered. The results of that study supported the findings of previous studies, indicating that most athletes have a negative attitude toward drug use (Schneider & Morris, 1993; Tricker & Connely, 1997). However, the validity of such surveys has been called into question as many athletes may have feared expressing their true feelings, even if anonymity and confidentiality were guaranteed (Alaranta et al., 2006; Pope, Katz, & Champoux, 1988). Regarding attitudes toward drug testing, previous studies have also yielded inconsistent results (Gaskins & deShazo, 1985; Schneider & Morris, 1993). Abdenour, Miner, and Weir (1987) reported that PED testing was a deterrent to drug usage among intercollegiate football players, but that players remained concerned about the accuracy of the tests. Participants in Diacin et al.'s (2003) study supported athlete drug testing and identified factors that influenced their perceptions of the use of performance-enhancing substances. Their data showed that female athletes were more supportive of testing programs than males, testing by schools and the NCAA was supported, but conference-wide testing programs were not, and finally, that in general, the athletes questioned were indifferent to drug testing. Additional themes were privacy issues related to drug testing and negotiating the meaning of fairness. Analysis revealed ambiguities and contradictions between athletics and academics, areas in which intercollegiate athletes simultaneously function. From the interviews conducted, three themes emerged: (1) factors influencing athletes' perception of drug use, (2) privacy issues related to drug testing, and (3) negotiating the meaning of fairness (Diacin, et al., 2003). Why is Attitude Measurement Important to Drugs in Sport? The primary rationale for why attitude measurement is important to understanding drug use in sport is that attitudes become a surrogate for otherwise unobservable behavior (Judge, Gilreath, & Bellar, 2010). Detection-based deterrence, where the risk of a positive test is meant to deter use (secondary prevention), is difficult and

costly due to the diversity of molecular structure testosterone related drugs and is rapidly becoming obsolete with the danger of undetectable gene-doping (Mazanov, 2006; Miah, 2004). Gene doping adds new genes or manipulates an athlete's own genes that control muscle growth and strength development, for example. New genes could be added to cells and tissues using a targeted virus or other delivery method but researchers are also preparing for the possibility that an athlete's own genes could be modified by treatment with genetic elements or even drugs. Another substance that may already be escaping the drug testing policy is Human Growth Hormone (HGH); this substance is especially problematic because it is currently being used by athletes while gene doping is still just a looming trend. HGH detection is unreliable due to its natural production in the body (Unal & Unal, 2004). The current anti-doping policy has received much criticism for its elite focus, sanction-based approach and associated costs (Savulescu, Foddy, & Clayton, 2004). The alternative is to deter use by stopping it before it starts by primary prevention, referred to by Mazanov (2006) as prevention-based deterrence. The World Anti-Doping Agency (WADA) has invested over \$7 million in research to develop gene-doping screening tests (WADA, 2008), but also supports an extensive education and outreach program to warn athletes and their coaches about the risks of using fledgling genetic technologies without medical supervision. Attitudes, therefore, become one mechanism towards explaining drug use behavior in sport. That is, it is the relationship between attitude and behavior that makes attitudes attractive to drug use in sport research (Mazanov, 2006). Goldberg, et al., (1996), demonstrated the effectiveness of prevention based deterrence with a peer-taught, team-based approach that was an effective avenue to improve adolescent behaviors and reduce drug use risk factors.

## Why do some athletes use performance-enhancing drugs (PED)

Many drugs and other substances are banned in sport because they may give an athlete an unfair advantage. Athletes might be tempted to use performance and image-enhancing drugs (PIEDs) because of a desire to win. Using drugs to improve performance in sport may lead to an athlete being banned and may also harm their health. Unlike other social issues such as illicit drug use, smoking and bullying e understanding of this transgressive behaviour is still emerging and policy and practice is not informed by either an equivalent scale or span of evidence. However, the last decade has seen an exponential increase in the number of studies seeking to identify risk factors for doping in sport. These studies have suggested the following risks: male gender (Backhouse, Whitaker, & Petróczy, 2013; Whitaker, Long, Petróczy, & Backhouse, 2013); career transitions and periods of instability (Lentillon-Kaestner & Carstairs, 2010; Mazanov, Huybers, & Connor, 2011); previous use of nutritional supplements (Backhouse et al., 2013; Lentillon-Kaestner & Carstairs, 2010); contact with dopers, being offered drugs, availability of drugs (Lentillon-Kaestner, Hagger, & Hardcastle, 2012; Pappa & Kennedy, 2012); enhanced injury-recovery and economic rewards (Bloodworth & McNamee, 2010); competitive level (Whitaker et al., 2013); and the influence of peers, parents,

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cultural norms and sporting culture (Pappa & Kennedy, 2012; Smith et al., 2010). Furthermore, 'risky' personality factors include low ratings of self-esteem, integrity, confidence and high trait anxiety (Petróczi & Aidman, 2008); dissatisfaction with one's appearance, impulsiveness, a 'win-at-all-costs' attitude (Mitic & Radovanovic, 2011; Whitaker, Long, Petróczi, & Backhouse, 2012); dispositional risk taking, and sensation seeking (Petróczi & Aidman, 2008); and the fear of failure (Pappa & Kennedy, 2012). Whitaker et al. (2012) also suggest that athletes' perceptions of PES users influence their own likelihood of use; the more positive attributes they associate with users, the more likely they are to use PES themselves. Emerging from this literature is a general agreement that no single factor predisposes an individual to use PEDs in sport; doping is influenced by multiple risk factors which can act individually, collectively and/ or in sequence to support the decision to dope, whether as a one-off, episodically or systematically.

The term "doping" in the sports context refers to the use of prohibited substances and drugs by athletes to enhance their performance. Doping is assumed to exhibit similar characteristics to "functional drug use", a strategic use of substances to achieve a set goal, and it has been recognized as a specific form of drug use (Lende, Leonard, Sterk, & Elifson, 2007; Petroczi & Aidman, 2008). The practice of doping is a sensitive and worrying issue in the sports community. Although awareness-raising interventions and disciplinary measures have been implemented, the doping phenomenon remains widespread and pervasive (Sottas et al., 2011; Uvacsek et al., 2011; World Anti-Doping Agency, 2011). Unfortunately, this observation has been confirmed by recent events that have shocked the world; seven-time winner of the Tour de France, Lance Armstrong, has admitted to taking illegal drugs, and Italian Olympic winner Alex Schwazer tested positive for illegal drugs at the London Olympic Games and was disqualified. The World Anti-Doping Agency (WADA) reported that, as recently as 2011, there were 1196 doping violations, implying that at least 3 athletes violated anti-doping rules each day (WADA, 2011). In Italy, the Health Institution published the "Reporting System Doping Anti-Doping 2011" (Italian Ministry of Health, 2012) providing similar data about doping behavior among Italian athletes

### Review of Literature

Fuller and LaFountain (1996) investigated the motivation and justification of athletes who admitted to steroid use. Fifty athletes ages 15 to 40 years old participating in weight lifting, football, wrestling, and bodybuilding revealed how they rationalized the use of performance-enhancing drugs, breaking the law, and exposing their bodies to health risks. Athletes' self-reported reasons for taking PEDs included fears that competitors have a chemically or medically enhanced, unfair advantage.

A later study by Strelan and Boeckmann (2003) expounded on this data by further delineating deterrents (costs) and benefits (enhanced performance) of PED use by athletes. They postulate that use of the theory of criminal decision-making (deterrence theory) is as applicable in

doping situations as it is to understanding why people disobey the law. Athletes, akin to criminals, are likely to use a cost-benefit analysis. Through their research, they developed the Drugs in Sport Deterrence Model (DSDM), and presented it as a platform for a more systematic understanding of what influences the decisions of elite athletes in deciding whether or not to use PEDs. Athletes cited teammates/peers and coaches as the most important sculptors of attitudes toward the use of PEDs. This finding aligns with the idea of "significant others" as presented by Coakley (2007). "Significant others" can influence athletes' behavior regardless of their personal disapproval of PED use. For example, coaches are viewed as having a strong influence in regulating athletes' attitudes and behavior (Anshel, 1991; Orlick)

Drug abuse in sports is a growing, ongoing problem in our society. While the stereotypical drug abuser may not seem like a high-profile athlete, drug use among athletes is common. Many famous athletes in nearly every sport have fought public battles with different types of substance abuse disorders. Addiction in sports affects both men and women and all ages, skill levels, and nationalities. Athletes are not immune to the struggles of the rest of society and can deal with addiction to hundreds of different substances, for many different reasons. The common assumption may be that athletes who struggle with drugs is "doping" or trying to gain some performance advantage. While this is a common reason for athletes to use drugs, it is far from the only reason. Nearly every drug, from alcohol to marijuana to performance-enhancing steroids, has found a place in modern sports. Athletes need to know that they are not immune to the ravages of addiction and, in some cases, may even be more susceptible to drug abuse.

### Drug Abuse In Sports: What Other Drugs Do Athletes Abuse?

Athletes are prone to abusing several different kinds of drugs. Most athletes who fall victim to drug abuse use substances in three distinct categories: performance-enhancing drugs (PED's), stimulants, and prescription painkillers.

### Performance Enhancing Drugs

Performance-enhancing drugs (also known as PED's) are drugs that are taken to gain an advantage in competition. Nearly every major sport, from cycling to baseball to even bowling, has had a "doping" (PED) scandal. These scandals often involve high-profile athletes, millions of dollars, and serious repercussions for getting caught. While PED's may enhance performance in the short term, they can also lead to serious long-term health issues, such as various cancers. Some of the most commonly abused PED's are as follows:

### Anabolic Steroids

While the body naturally produces an anabolic steroid in Testosterone, athletes can use increased levels of naturally occurring hormones to gain a competitive advantage. Taking

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synthetic testosterone, or another anabolic, can lead to muscle gains and the ability to work out longer while recovering faster. Anabolic steroids are illegal in all major sports leagues and international competitions.

### Androstenedione

Andro" is a prescription drug that can help athletes train harder and recover faster. However, studies show that it does not aid in muscle formation or increase testosterone levels. While Andro has been legal before, it is generally now banned in sport universally.

### Human Growth Hormone

Human growth hormone (HGH) is a prescription drug that can be used in cancer treatments or similar situations. It is often bought and sold illegally, and it can drastically improve muscle mass as well as performance.

### Diuretics

Athletes will often use diuretics as a "secondary" drug to cover up other PED usage. Diuretics work by altering the body's fluid and chemical levels, often to mask mainstream PED use.

### Erythropoietin

This drug aids in the production of hemoglobin and red blood cells (called erythrocytes). These cells increase oxygen delivery to muscles which then helps increase endurance and aerobic power. While PED use may seem like a good idea in the short term, it can have serious, lasting effects. In addition to the health concerns, most major sports have strict punishments for anyone being caught using any PED's. This can include season or lifetime bans, loss of endorsements or contracts, and much more.

### Painkillers And Prescription Drugs

Athletes from all different sports deal with short and long-term injuries that vary from bumps and bruises to serious or even deadly accidents. NFL football players, for example, play a physical game that is marked by the constant depreciation of an athlete's body. No matter the sport, or the reason for the injury, painkillers are prescribed to athletes for legitimate pain management reasons every day. Prescription opioids (such as Oxycontin and Vicodin) are some of the most widely abused drugs in the world, and athletes have been prescribed them often.

### Stimulants

Athletes may use stimulants such as amphetamines, meth, or Adderall to enhance alertness, increase energy or lose weight. These drugs are commonly abused and often readily available. They can have severe respiratory and neurological effects and are highly addictive. These types of stimulants are banned for performance-enhancing use in all major sports.

### Why Do Athletes Use Drugs?

Athletes get into drug use for many different reasons. While some are trying to gain a competitive advantage, most athletes who struggle with addiction do not enter into drug use lightly. While performance-enhancing drugs were discussed above, some of the other most common reasons athletes use drugs are listed below:

- Many athletes use drugs to cope with stress and mental illness. They may use marijuana to relax or use Adderall to address perceived learning disabilities or attention deficits. Some athletes may use drugs such as marijuana to unwind or reduce stress.
- Athletes may begin using prescription painkillers to reduce pain from competition-related injuries.
- Athletes may begin using drugs or alcohol to cope with the loneliness or anxiety of retirement. The change of pace that comes with post-competitive life can be jarring and lead to drug or alcohol use.
- Many athletes, especially those who are younger and/or in college, begin using drugs or alcohol simply to fit in. Peer pressure is one of the most common reasons people begin using drugs and alcohol

### Athletes Who Take Drugs and Spoil Their Career:

**Shane Warne:** In February 2003, prior to the start of the cricket World Cup, the ace Australian spinner was sent home after testing positive for a banned diuretic during the One-day series in Australia earlier that year. He claimed ignorance of the banned nature and tablet he took, as well as much of the drug policy of the Australian Cricket Board despite extensive briefings on the matter in the past. Charged with using "a prohibited method to enhance performance", he faced a two-year ban from cricket if found guilty.

**Lance Armstrong:** One of the biggest names in cycling, Lance Armstrong was stripped of 7 Tour De France titles after he admitted to taking performance enhancing drugs Erythropoietin (EPO), human growth hormone, testosterone, cortisone as well as having blood transfusions.

**Maria Sharapova:** In 2016, Maria Sharapova was provisionally banned from competing in tennis when she failed a drugs test at the Australian Open. She has been taking a drug called meldonium for over 10 years for health reasons and was unaware that it's also called mildronate which had recently been listed on the World Anti-Doping Agency's banned list. There was evidence of athletes using this drug with the intention of enhancing their performance, therefore Maria Sharapova was banned from competing for 15 months.

**Marion Jones:** Female athlete, Marion Jones became a hero and role model to many at the 2000 Summer Olympics, after racing her way to 5 medals - three gold, the most by any female athlete in a single Olympics. Jones became an overnight star, appearing on the cover of Vogue, and became one of sport's first female millionaire. Fast forward 8 years, and America's darling was sentenced to 6 months in prison

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after she admitted lying to federal agents about steroid abuse. Jones stated that her former coach, Trevor Graham, gave her the substance, telling her it was the nutritional supplement flaxseed oil. The supplement was actually a steroid known as “the clear”. Many other well known athletes become eminent due to drug abuse viz. Andre Agassi (Tennis), Martina Hingis (Tennis), Pradeep Sangwan (Cricket, India), Shoaib Akhtar, Mohammad Asif, (Cricket- Pakistan), Kunjrani Devi (Weightlifting –India), Seema Antil –Discus thrower (India), Mandeep Kaur –Athlete (India) and many more.

**Diego Maradona:** At the 1994 World Cup, famous Argentine footballer Diego Maradona tested positive for five variants of ephedrine which is a drug used to increase energy and alertness in addition to losing weight by speeding up your metabolism. Prior to this in 1991, he was banned by Napoli for 15 months after testing positive for cocaine. Later that year, he was arrested for possessing half-kilo of cocaine which resulted in a 14-month suspended sentence. As Maradona continued to struggle with drug misuse, his health quickly deteriorated and he suffered an overdose in 2000, followed by a heart attack in 2004.

**Tyson Gay:** American sprinter Tyson Gay was set to give Usain Bolt a run for his money back in July 2013 whilst competing in the 100-metre sprint. He tested positive for a banned substance so was removed from the tournament; he was thought to be illegally using anabolic steroids. In May 2014, he was banned from the sport for 12 months and forfeited the Olympic silver medal he'd won as a part of the US 4×100 metre team at the London Olympics. India's Rank 3rd in Doping: Sporting minnows India has been ranked third in a doping violation report published by World Anti-Doping Agency (WADA) with 117 athletes from the country being punished after testing positive for banned substances. India followed Russian Federation (176) and Italy (129) at third spot in the doping violation chart released by the WADA, the same position as in the reports of 2013 and 2014. All the dope violations by the Indians came from urine samples.

The worrying sign for India is that the number of dope offenders has been increasing in the last three years. India had 91 and 96 Anti-doping Rule Violations. Among sports disciplines worldwide, bodybuilding overtook athletics in contributing the highest number of dope cheats with 270 such cases. Athletics is second at 242, followed by weightlifting (239), cycling (200), power lifting (110), football (108), rugby union (80), boxing (66), wrestling (57) and basketball (39).

Commonly abused Drugs and their Effects on the Athlete: Primary natural products such as hemp or cannabis are usually cheap; you can buy raps of N10.00. They are readily available too. They often evoke a sense of the sublime and call for the repetition of such experiences they create. Hence, complete dependence is possible once somebody is involved in it. The modern addictive drugs have hallucinogenic properties, strong hypnotic effects and stimulant action (Amphetamines). These synthetic Analgesic drugs are

common in Medical practice. As Govil (undated), put it, their regular administration leading to physical dependence and addiction, which lead to mental changes. Example delayed comprehensive, weak memory, faulty decision, illogical reasoning and action. He went further to state “the psychophysical damages resulting from prolonged indulgence may become irreparable in time. These dangers enumerated affect athletes; performances. It leaves a lot of psychological effects on the athlete who may discover that he/she is strong physically but has weak memory, faulty decision, delayed actions in taking decisions. He/she may be very hostile to even the coach who is suppose to be the closest person to him in training.

Drugs Used to Enhance Performance in Sports: Generally, drugs used in sports can be grouped into two main categories.

- a. Restorative Drugs: These are drugs used to treat injuries, illness and in some cases to suppress pain. They are therefore taken with the sole aim of restoring the athlete's normal prowess. In this group are analgesics or anodynes pain relieving drugs, muscle relaxants etc.
- b. Addictive Drugs: This is usually taken with the aim of stimulating the athlete's performance beyond his/her normal or natural limits. These drugs, which enhance performance is termed “Doping”

Astrand & Rodahl (1988), defined doping as: the administration or use of substances in any form alien to the body or of physiological substances in normal amounts and with abnormal methods by health persons with the exclusive aim or attaining an artificial and unfair increase in performance in competition. Furthermore, various psychological – measures to increase performance in sports must be regarded as doping. The use of drugs, especially doping has acquired widespread use in professional sports especially, wrestling, weight lifting, boxing, football, cycling etc. It has also reared its ugly head in the ranks and file of Amateur Sports. Akono (1989) reported that the current International Olympic Committee rules stated that there are five known banned groups of pharmacological substances or preparations. These include:

1. Psychostimulants: Examples are Amphetamines, cocaine, fencainfamine etc. These are substances that primarily act on the psyche, producing a stimulating effect and subduing weakness, thereby causing a feeling of increased ability.
2. Sympathomimetic Aminos (Amino substances): Examples are Ephedrine, Methoxyphenamine, Methylephedrine, and chemically or pharmacologically related compounds. These are through the nervous flow, respiration, and other physiological systems that aid sports performance.
3. Central Nervous System Stimulators: Examples are Nikethamide, Bemigrade, etc. These drugs improve an athlete's reaction time and response to situations.
4. Narcotic analgesics: Examples are Morphine, Heroin, etc. Their drugs reduce the effect of pain on the body. It is usually for combat sportsmen and women.

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5. Anabolic Steroids: Examples are chostebol, neramol, etc. This, unlike the first four groups, acts in a chronic manner, in what Medical Doctors will describe as the anabolic effect. This is an Arobable that increases protein metabolism, water retention, and the retention of other substances.

These long-term harmful effects are the occurrence of traumas, joint ailments, liver disease, intestinal diseases, cancer, high blood pressure, decreased sperm production in men, disruption of menstrual flow in women, masculinization of women, and stops the growth of height of young growing sportsmen and women. Sometimes infertility. Apart from the aforementioned substances, there are others like the Beta-blockers. There are other groups of central nervous system-acting drugs that are used by athletes. There are also other non-pharmacological ways of doping, for example, blood doping or blood transfusion.

**Psychological Implications to the Athlete:** Doping not only creates a situation of unequal participation during competitive sports but also disrupts its moral and ethical basis, which affects the athletes psychologically. The disgrace meted out to Ben Johnson of Canada is a typical example. He had an advantage over other participants. If he was not detected, this should have been enough to psyche others out of the competition. On the other hand, he was caught and banned for two years, which psychologically affected him and tarnished his image worldwide. Performance usually deteriorates with the constant use of most drugs. This makes it easy for the athlete to reach his peak. This may cause easy frustration among athletes. Consequently, the athlete will become very hostile to both the coach and sometimes teammates who are not involved in drug use. Indiscipline of all sorts result, which leads to breaking of bounds. As the monetary demands also increase, begging, borrowing, or stealing becomes a way of life, which psychologically affects the athlete's performance. He thinks more of how to obtain drugs than he thinks of training. As such, he cannot perform to his peak, because he is not sure of where to get money to procure the next round of drugs. If this happens during a major competition, the athlete is bound to make mistakes because he hardly concentrates. Depression is another psychological emotion usually exhibited by individuals, including athletes, who use drugs. At this point in time, if they are competing or training properly, no activity makes sense to them at this time. Indifferences to the athlete's personal image and anti-social behavior may manifest, which affects him psychologically. Most of the times they resort to a lot of self-defense mechanisms to safe image.

### Discussion of findings

An athlete's decision to use PEDs in sport has been credited to a complex interaction of personal and environmental factors (Nicholson & Agnew, 1989; Tricker, et al., 1989) that make the problem a difficult one to study. Self-reported questionnaires, and limited comparable data combined with the secrecy that surrounds a prohibited practice creates difficulty in assessing result reliability (Alaranta et al., 2006). Investigations done in the area of PED use in sport illustrate that most of the athletes

have a strong attitude in opposition to the use of drugs in sport (Alaranta et al., 2006; Mugford, 1993), however, some experts suppose that these attitudes may be the consequence of social desirability (Petroczi, 2007; Petroczi & Nepusz, 2006). That is, the athletes are reporting what they think NADOs want to hear rather than their true attitude towards drug issues in sports. Survey research investigating a prohibited practice has limitations: respondents may provide intentionally false answers because they may not wish to reveal their true feelings, even when anonymity and confidentiality are guaranteed by the investigators. Thus, these results should be interpreted with caution.

The results of the present study are partially consistent with the Theory of Planned Behavior (Ajzen & Fishbein, 1988), namely that the level of intention to perform a particular behavior depends on the individual's attitude towards the behavior (Ajzen, 1991). This theory has been successfully used to predict intentions to use PEDs among collegiate athletes in a similar study (Allemeier, 1996). However, the relationship between subjective norm and behavioral intent was not significant in the present study. A plausible reason for the discrepancy is that the participants were mostly collegiate athletes who may not perceive themselves as having any significant influence or involvement with the doping problem more commonly found in and associated with elite-level athletes. The three survey items utilized to gather data on the subjective norms in our study were focused on drug use among elite-level athletes and failed to capture the subjects' opinions on drug use issues in their present level of competition. These questions should be refined for future study.

Although the majority of participants (70.5%) in this study identified strength as the most important factor for success in the throwing events (Franke, & Berendonk, 1997) and (84.1%) admitted to using creatine (a legal substance), they supported the anti-doping movement. This is based on their attitude (mean =  $1.20 \pm 0.91$ ) and behavior intent (mean =  $1.27 \pm 1.5$ ) scores. It appears the throwing athletes utilized legal ergogenic aids like creatine to help improve performance. But, using nutritional supplements have been found to increase the likelihood of subsequent doping (Laure & Binsinger, 2007).

The majority of the athletes interviewed did not believe that drug testing was an invasion of privacy, a change from 10 years earlier (University of Colorado v. Derdeyn, 1993) when the University of Colorado lost its appeal to reinstate its drug testing program after a lower court enjoined them based on the 4th Amendment right of reasonable search and seizure. In contrast to previous research (Diacin, et al., 2003) and (Donovan, Egger, Kapernick, & Mendoza, 2002), the participants in the present study indicated that their decision to use PEDs would not be influenced by their teammates or competitors (reference groups). This conclusion could be a result of several factors. Participants in the present study could: (1) consider PED use unnecessary because they are happy with their level of performance, regardless of who close to them might use or condone, their use, (2) they could have all been

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optimists/inner-directeds (Donovan et al., 2002), (3) or perhaps they were not completely honest. Further investigation is needed to uncover the source of these perceptions.

A final point of discussion in the present study versus previous investigations lies in our subjects' response to a single question: "If you knew you would not get caught, would you use a banned performance-enhancing drug?" In 1995, a poll was conducted in which 198 athletes, ranging from Olympic-caliber to aspiring Olympians, were asked whether they would use a banned performance-enhancing drug if they were guaranteed not to get caught and to win. Only 3 of those athletes said they would not use a drug (Bamberger & Yaeger, 1997). One half of that question was posed to the participants in the present study, leaving the possibility of winning, and 81.3% said they would not use the drug. The discrepancy in this data could be explained by the demographics of the survey sample; the majority of the subjects are college athletes who may not have athletic aspirations beyond graduation. A second reason for this difference could be our underestimation that the power of guaranteed success (winning) might have on this decision. Through this research, we definitely gain a snapshot of the attitudes track and field throws athletes have toward PEDs; specifically, attitudes for and against use, perceived prevalence of use, and issues related to drug testing. The results show a negative attitude in favor of PED use and a positive attitude against use, perceived prevalence of use is low, and drug testing is viewed as an acceptable practice.

### **The Coach's Playbook Against Drugs**

What you tell your athletes about the use of alcohol and other drugs is very important. Don't take the subject lightly—the lives and future of the young people you coach are truly at stake. Equally important, the standards that you set by example will become the guide for students' behavior. If you want athletes to stay away from alcohol and other drugs, you must send that message clearly "Coaching your students to remain drug free is a championship play. Join our team."

and forcefully, in words and in actions. If team members do not hear your opinion on this important subject, they may assume that you don't care. Many coaches may believe that their players are not the ones who are using alcohol and drugs, but they may be mistaken.

The purpose of this playbook is to help you as a coach educate your athletes about the dangers of drugs. Each year, 7 million boys and girls in this Nation participate in sports at middle, junior high, and high schools. These students are catalysts for a healthy chain reaction of involvement and school spirit, involving team captains, players, other students, school personnel, and the community. And it all begins with you—the coach—as the pivotal player. Athletic coaches have a special relationship with athletes and other students but often underestimate their influence on these young people. You are a role model in the eyes of a young athlete, and you occupy this leadership role at a very significant and impressionable time in the athlete's life. When you talk to your players and students about the dangers of drugs, the message is more effective because "Coach" is behind those words.

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