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## *Teaching Awareness of Ethical Governance in Sport*

### Topic 4

### Doping in Sport

### List of papers & Abstracts



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## List of papers

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## Motivational and social cognitive predictors of doping intentions in elite sports: An integrated approach

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Doping use is an important issue in both competitive and non-competitive sports, and poses potentially irreversible health consequences to users. Scholars increasingly call for theory-driven studies on the psychosocial processes underlying doping use that will inform subsequent policy-making and prevention interventions. The aim of the study was to implement an integrative theoretical model to assess the direct and indirect effects of motivational variables, moral orientations, and social cognitions on doping intentions. A randomly selected and representative sample of 750 elite athletes anonymously completed a battery of questionnaires on motivational and moral constructs, and social cognitions related to doping. Hierarchical linear regression analysis and mul-

tiple mediation modeling were used. The effects of achievement goals and moral orientations were significantly mediated by attitudinal, normative, and self-efficacy beliefs, in both lifetime ever and never doping users. Moral orientations indirectly predicted the doping intentions of never users, but did not predict ever users' doping intentions. Achievement goals and sportspersonship orientations influence doping intentions indirectly, through the effects of attitudes and self-efficacy beliefs. Sportspersonship (moral) orientations were relevant to doping intentions among athletes with no prior experiences with doping, while achievement goals and situational temptation were relevant to both lifetime never and ever dopers.

Sport is universally promoted as the manifestation of excellence, hard work, health, fair play, and equality. Doping use hurts the image of sports, is against sport principles, and poses potentially irreversible health consequences to users (Bowers et al., 2009). So far, doping prevention has largely focused on penalization of doping use and sanctioning of users. However, it appears that doping is still used by both professional and non-professional athletes (Donovan et al., 2002; Striegel et al., 2010), thus suggesting that a different doping prevention approach should be considered. Researchers in doping have called for comprehensive evidence-based doping prevention that will tap the psychosocial processes underlying doping use (Petroczi & Aidman, 2008; Dunn et al., 2009). These processes may include a range of risk factors for doping, including motivational tendencies, moral profiles, as well as attitudinal and normative beliefs.

Early research on doping use focused largely on the role of attitudes (e.g., Anshel & Russell, 1997), but more recent studies have increasingly incorporated other risk factors. For instance, studies with non-professional adolescent athletes found that variables from Ajzen's (1991) theory of planned behavior (TPB; i.e., attitudes, social norms, and self-efficacy) significantly predicted doping

intentions and behavior (Lucidi et al., 2008). Similar findings were reported in a study with gym users (Wiefferink et al., 2008). Results from another study with competitive student athletes indicated that those who used doping substances were more likely to overestimate doping use in other athletes, thus signifying the role of normative beliefs in the process of doping use (Petroczi et al., 2008). Petroczi (2007) also studied the role of goal orientations among college student athletes, and found that win orientations related to doping attitudes, but were not directly related to doping behavior.

The aforementioned studies highlight two important issues for doping research. Firstly, that, in addition to attitudes, there are a number of other variables that drive athletes' doping intentions and practices, and hence, that specific theory-driven approaches are needed to better understand the process of doping. Secondly, that the influence of risk factors on doping intentions and use can be both direct and indirect, and that there are at least two levels of influence on doping use: distal and proximal (immediate) predictors. To date, the studies that have investigated indirect effects on doping behavior by specifying the different levels of influence and by using related data analytic methods (e.g., mediation modeling) are scarce and fairly recent (e.g., Petroczi, 2007; Lazuras



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## The Effect of an Ethical Decision-Making Training on Young Athletes' Attitudes Toward Doping

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This article examines whether a training program in ethical decision making can change young athletes' doping attitudes. Fifty-two young elite athletes were randomly assigned to either an ethical decision-making training group or a standard-knowledge-based educational program group. Another 17 young elite athletes were recruited for no-treatment control purposes. The ethical decision-making training comprised six 30-min online sessions in which the participants had to work through 18 ethical dilemmas related to doping. The standard-knowledge-based educational program was also conducted in six online sessions of comparable length to that of the ethical training. A short version of the Performance Enhancement Attitude Scale was administered to measure the effects of the trainings on doping attitude. Prior to as well as after the intervention, the mean doping attitude scores of the young athletes were low to very low, indicating vehement rejections of doping. The results of our experiment showed that the ethical training led to an attenuation of these rejections. No intervention effect was found in the standard education group. The observed slight increase in the doping attitude score could be an indication that the ethical decision-making training was successful in breaking up the athletes' stereotypical style of reasoning about doping.

**Keywords:** youth sport, antidoping, training program, effect evaluation

Doping, defined as the abuse of performance-enhancing substances and methods, is increasingly becoming a problem in both elite and recreational sports. Reasons discussed for why consumption of illegal performance enhancing substances is problematic is because it endangers the health of the athlete, goes against the integrity of sport, destroys the idea of a "level playing field," and does not set a good example for young athletes (Kaysner, Mauron, & Miah, 2007).

In the past, the most common approach in the fight against doping has been that of regular doping controls and punishments for positive tests, which can also be defined as a *detection and deterrence approach*. For more than 10 years, organizational structures and standard operating

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## Predictors of Doping Intentions in Elite-Level Athletes: A Social Cognition Approach

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Doping use is an ongoing problem in contemporary sports. Despite efforts to detect and control doping, research on its etiology is limited, especially among elite-level athletes. The present study used an integrated social cognition model to examine the predictors of doping intentions. Structured anonymous questionnaires were completed by 1075 Greek adult elite-level athletes ( $M$  age = 25 years,  $SD$  = 5.89, 36.1% females) from both team and individual sports. Multiple regression and mediation analyses showed that attitudes, normative beliefs, situational temptation, and behavioral control significantly predicted doping intentions. A normative process was identified whereby situational temptation mediated the effects of normative beliefs on intentions. The findings provide the basis for future social cognition research in doping use, and set the framework for the development of evidence-based preventive interventions.

**Keywords:** performance enhancing drugs, PED use in sports, normative influence, situational temptation, mediation effect

The use of prohibited performance-enhancing drugs (PEDs) is not a new issue in sports, and the collective term *doping* is officially used to denote illegitimate performance enhancement substances and methods among professional and amateur athletes. Public awareness on PED use was raised following the death of a cyclist who abused stimulants in the Tour de France in late 1960s (Dauncey & Hare, 2003). Over the last two decades, information campaigns and doping control efforts have increased across almost all competitive sports, with the active participation of international sports associations and federations (Petroczi, 2007).

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## Attitudes and Intentions of Greek Athletes and Coaches Regarding Doping

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### Abstract

The aim of this study was to examine athletes' and coaches' attitudes and intentions with regard to doping, using the theory of planned behavior (TPB) model. This model [1], explains all the behaviors which are related to self-control, based to the theory that intentions are influenced by attitude, perceived behavioral control and subjective norms. The variable "morality" was added to the original model. One hundred and forty-three athletes (mean age = 20.93 ± 2.90) who were involved in competitive sports and 50 coaches (mean age = 35.74 ± 7.80) participated in the study. A questionnaire was administered to assess the demographics (age, gender, sport type, competitive level, years of sport participation and education), attitudes, subjective norms, perceived behavioral control, intentions, morality and doping choices of athletes and coaches with regard to doping. The results showed that attitudes (62%), perceived behavioral control (3%), and morality (4%) were significant predictors of athletes' intentions to engage in doping choices but that coaches' only attitudes were the most important predictor of intentions to engage in doping choices (72%). The most important predictors of 1<sup>st</sup> and 2<sup>nd</sup> doping choices were intentions (78% and 68%) and perceived behavioral control (1%) for athletes and intentions (84% and 79%) for coaches.

### Keywords

Athletes, Doping Choices, Doping Attitudes, Morality, Planned Behavior Theory

### 1. Introduction

According to the World Anti-Doping Agency, doping is defined as the violation of various anti-doping rules established by the World Anti-Doping Code [1] [2]. Research has shown that external factors, such as excessive media exposure, economic rewards [3] and the commercialization of sports [4] are linked to doping (use of illegal performance-enhancing substances). Additionally, doping has been related to attitudes and intentions regarding

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Strelan, P. and Boeckmann, R.J. (2006) Why Drug Testing in Elite Sport Does Not Work: Perceptual Deterrence Theory and the Role of Personal Moral Beliefs. *Journal of Applied Social Psychology*, **36**, 2909–2934. <http://dx.doi.org/10.1111/j.0021-9029.2006.00135.x>

## Why Drug Testing in Elite Sport Does Not Work: Perceptual Deterrence Theory and the Role of Personal Moral Beliefs<sup>1</sup>

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Performance-enhancing drug use by elite athletes is a modern sporting and social concern. We applied a long-overdue theoretical framework, perceptual deterrence, to predicting the banned drug-use decisions of 116 elite Australian footballers and soccer players. The strongest influence on athletes' hypothetical decisions to use drugs was their personal moral beliefs and health concerns, each of which also mediated the relationship between drug testing and athletes' decisions to use banned substances. Drug testing had little influence on athletes' imagined drug use decisions, although there are athletes for whom legal sanctions are necessary. The results have important implications for the way in which authorities fund and frame future anti-drug initiatives; particularly the relationship between drug testing and athletes' personal moral beliefs.

Sport occupies a central strand in the social fabric. Hundreds of millions of people around the world participate in sport and report a number of subsequent health and psychological benefits (Myers & Roth, 1997). Many more are consumers of sport and, in turn, often are consumed by it. For these individuals, their social identity is defined by their sporting involvement (Wann & Branscombe, 1993). At the macro-level, sport has the potential to galvanize and capture the imagination of entire nations (e.g., during the Olympic Games or the soccer World Cup). According to Adams and Molloy (1987), elite sporting feats are revered, for they "inspire in us a sense of our own potential as human beings ... our lives are heightened by them" (p. 4).

In recent decades, the generally positive role of sport as a social and psychological force has been reduced by elite athletes' use of performance-enhancing drugs. Since 1968, such drugs have been banned because they are

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