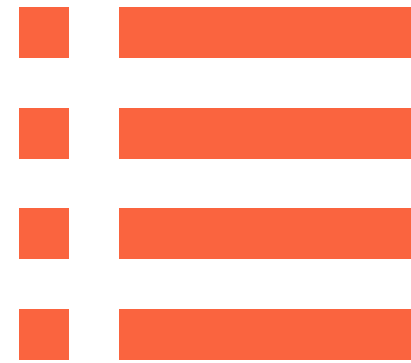# MORAL DISENGAGEMENT, SOCIAL NORMS, AND MOTIVATIONAL PROFILES INFLUENCE ON ATTITUDES TOWARDS DOPING AMONG SPANISH COACHES

Elena García-Grimau, Ricardo De la Vega and Arturo Casado

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Introduction

- **Coaches strongly influence athletes' attitudes toward doping** and can shape athlete's beliefs, behaviors, and decisions to be for or against doping.

- Athlete Support Personnel's (ASP) **roles and responsibilities** are defined in the World Anti-Doping Code (WADC). Seven anti-doping rule violations are applicable to ASP.

- **Coached-centered studies examining multiple factors** affecting coaches' doping attitudes and behavior are scarce.

Barkoukis et al., 2019; WADC, 2020

What are the factors that most influence coaches' attitudes and susceptibility to doping?

Theoretical Framework

Findings in previous studies

Back to research question

-Coaches are aware about their important role in doping prevention.
-Lack of anti-doping knowledge.
-Not fully committed to the prevention of doping.

Mazanov et al., 2014, Backhouse et al., 2015 Engelberg et al., 2019
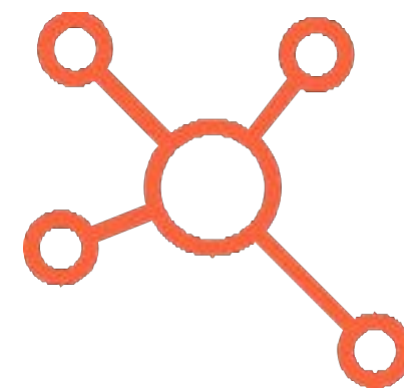
Coaching style, motivational climate, deliberative thinking and moral factors have been analyzed to finally understand their relationships with doping attitudes in athletes.

Sullican et al., 2015; Horcajo and De la Vega 2016; Patterson and Backhouse 2018; Ntoumanis et al., 2021.

Literature reviews confirmed the lack of quantitative research guided by a theoretical framework and examining a large number of factors influencing coaches' doping attitudes and behavior.

Backhouse et al., 2007, 2015

Theoretical Framework:
The Sport Drug Control Model (SDCM)

Overview	Application
Sport Drug Control Model (SDM) • Behavioral Science: Theory of Planned Behaviour • WADA's Social Science Research Package • The SDCM states that several factors influence athlete's attitudes and susceptibility to doping.	• Tested in ATHLETES showing validity and reliability. • The SDCM could be adapted for application to ASP but **has not yet been applied to coaches**.

Donovan et al., 2002;

Gucciardi et al., 2010; Jalleh et al., 2013; García-Grimau et al., 2021;

Objectives

1

To apply for the first time the SDCM in coaches with the aim of assessing the reproducibility of the model in ASP
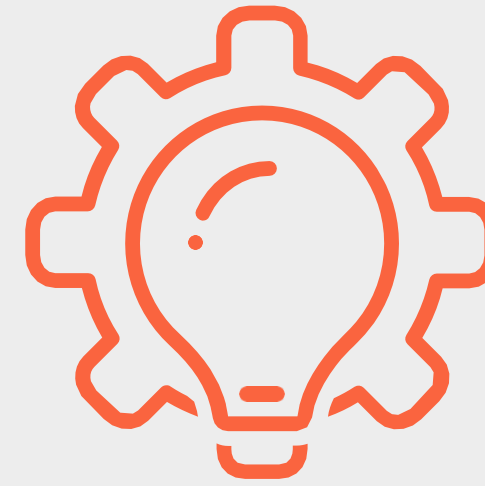
2

Determine the factors in the model that most influence coaches' attitudes and susceptibility toward doping

3

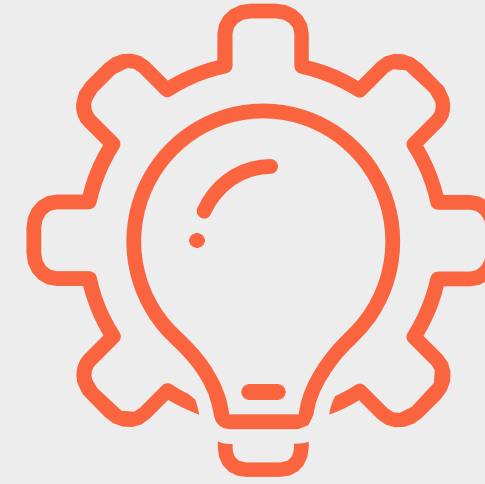Measure doping prevalence in coaches

Discussion

Methodology

Participants and design

- Cross-sectional study
- 201 Spanish athletics competitive level coaches (11.4% female)
- Online survey from the database of the National School of Coaches of the National Athletics Federation. (11.4% response rate)

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Methodology

Instrument and measures

- Sport Drug Control Model questionnaire adapted for coaches.

- 9 constructs measured:

  - moral disengagement

  - benefit and threat appraisal

  - self-efficacy to refrain from doping, goal orientations, subjective norms, descriptive norms

  - attitudes toward doping and susceptibility to doping.

Methodology

Data analysis

- Descriptive statistics, reliability, and internal consistency analysis of the study variables: Mean and CI, SD, McDonald's ω, AVE, CR.

- **Structural Equation Modeling (SEM)** was carried out to test the SDCM. Adequacy of the model was evaluated wit recommended fit indices: X2/df=1.76, CFI=0.93, TLI=0.96, RMSEA=0.0062, SRMR=0.09 . Reveal Good fit of the data.

- Statistical significance level of 9 5 % (p < 0.05) was applied

Results: Descriptive statistics

TABLE 1 | Descriptive statistics, reliability, and internal consistency estimates for the variables measuring the sport drug control model through structural equation modeling.

Variables	Range	Mean (CI)	SD	ω	AVE	CR
Susceptibility to doping	(1) not at all to (4) a lot of consideration	1.08 (1.04, 1.13)	0.32	–	–	–
Attitudes toward doping	(1) definitely don't have to use to (5) definitely have to use	1.67 (1.52, 1.81)	1.05	–	–	–
Moral disengagement	(1) Strongly disagree to (7) strongly agree	1.37 (1.28, 1.46)	0.66	0.68	0.48	0.77
Benefit appraisal	Performance enhancing effect: (1) would not to (5) definitely would	3.21 (3.06, 3.36)	1.07	0.89	0.59	0.89
	Positive outcomes: (1) a lot to (3) not at all	1.50 (1.45, 1.55)	0.34	0.72	0.48	0.82
Threat appraisal	Testing likelihood: (1) very likely to (5) Not at all likely	3.57	1.27	–	–	–
	Evading detection: (1) Very likely to (5) Not at all likely	2.83	1.20	–	–	–
	Ill-health effect: (1) A lot of harm to (5) no harm	2.07 (1.9, 2.24)	1.10	0.94	0.73	0.94
Motivational profiles: self-efficacy to refrain from doping	(1) completely capable to (7) Not at all capable	1.59 (1.37, 1.80)	1.54	0.98	0.84	0.98
Motivational profiles: ego-oriented goals	(1) strongly disagree to (5) strongly agree.	2.14 (2.03, 2.26)	0.83	0.82	0.53	0.87
Subjective norms: Reference Groups' Endorsement of Doping Methods/Substances	(1) would definitely approve to (5) would definitely disapprove	4.14 (4.04, 4.24)	0.74	0.88	0.61	0.95
Descriptive norms: perception of others' use of doping		19.5* (17.1, 22.0)	17.4	0.93	0.76	0.94

CI, confident intervals; SD, standard deviation; ω, McDonald's ω; AVE, average variance extracted; CR, composite reliability. *Average percentage of perceived doping.

- Coaches reported on average negative attitudes toward doping and low levels of susceptibility to doping and moral disengagement.
- Descriptive norms: they perceived an average doping prevalence of 19.5%.
- 4.5% self-reported doping prevalence.

Measures showed good internal consistency and reliability, with ω > 0.6, AVE > 0.4 and CR > 0.7

Overview of S E M analysis with standardized parameter estimates
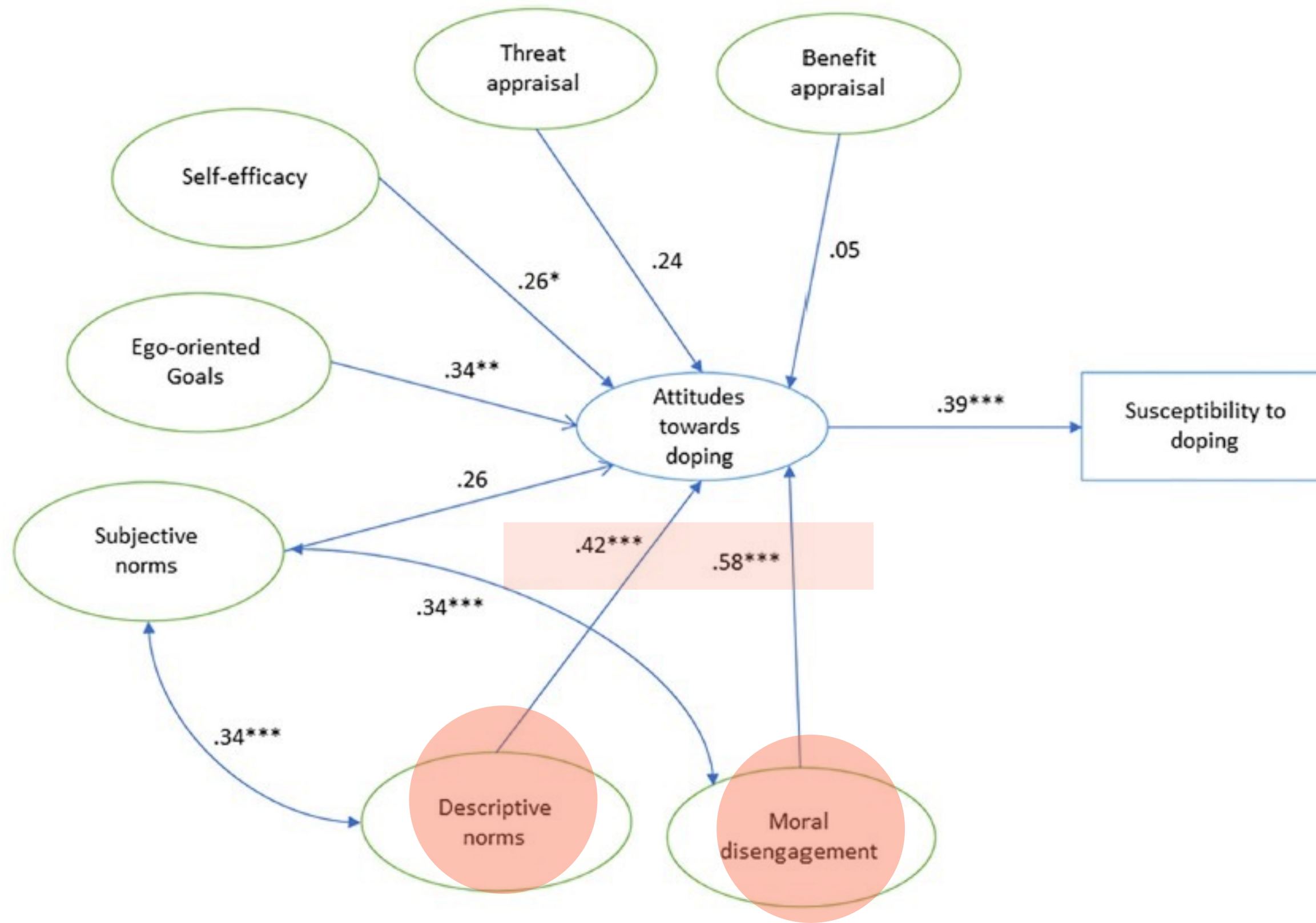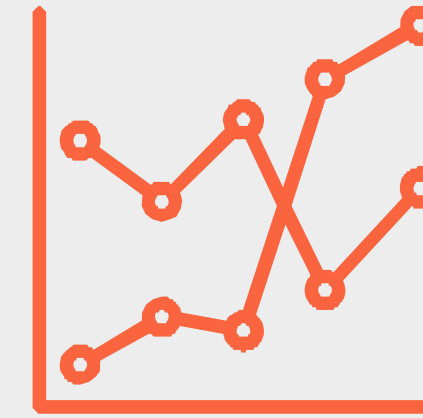
- The relationships were significant excepting threat appraisal, benefit appraisal, and subjective norms.
- **Moral disengagement and descriptive norms** were the strongest predictors of doping attitudes in coaches

Attitudes toward doping predicted doping susceptibility significantly.

In summary

The SDCM displayed reproducibility in ASP.
So far, the SDCM had been applied to athletes, its application in a new population is an added value to this research.
4,5% of the coaches supply at least one of their athletes with prohibited substances or methods

Moral disengagement, social norms and motivational profiles were the strongest predictors of positive attitudes toward doping among athletics coaches.

Objective 1 and 3
☑

Objective 2
☑

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Discussion and Conclusion

The results of the present study alongside those from others previous studies, reveal that coaches tend to morally disengage through a lack of commitment and a diffusion of their responsibilities as educators in doping prevention, and consider that they do not have adequate tools to prevent their athletes from doping use.

Mazanov et al., 2014,
Backhouse et al., 2015
Engelberg et al., 2019

All this scientific evidence paints a worrying picture, as coaches could rather represent a doping risk.

The absence of doping prevention may involve the presence of risk of its use.

Perhaps it is time to focus more efforts on coaches and turn them into reliable doping preventive factors.
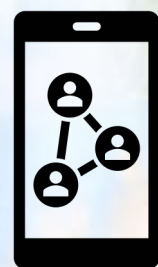
It is necessary to enhance scientific research, implement and promote more educational programs targeting competitive level coaches, on a mandatory basis so that they can perform their role as anti-doping educators in an effective, committed, and proactive manner.

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Thank you!

Do you have any questions?

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