Project Claessens

Doping attitudes, moral disengagement, and ethical decision-making of young talented athletes: An advanced intervention study

Educational programs aimed at the prevention of doping in sports are still at the centre of attention in practice as well as in science. At the WADA conference in 2015, the importance of value-based educational programs was underlined, that is, programs that focus on the development of positive values in life such as integrity, self-awareness, and critical thinking (1). These educational programs intend to prevent doping use by affecting ethical decision making of athletes in favour of a clean sport. Our challenge is to develop an affective educational program to support this goal.

Recently, researchers (2) pointed out that a systematic training of ethical decision-making is the way to move forward as it influences the decision to dope in sport situations and empowers young talented athletes to choose a doping-free path. Our aim is not to develop yet another training program, but to demonstrate the effectiveness of a refined ethical decision making training program that was previously developed with WADA funding (3). A recent pilot intervention showed promising results.

Our ethical intervention program is an improvement of previous studies in five ways:

(1) we will test an adapted intervention (Advanced ethical Decision making Training 2.0, ADMT 2.0), based on the existing program) in which technological innovations such as an app and an educational (serious) game will be used to reinforce effectiveness;

(2) we will use the results of a pilot intervention with several technological innovations to refine and support our intervention program;

(3) we will test the intervention program in a larger sample of adolescent athletes that is recruited in a different manner than in the original study;

(4) we will add follow-up measurements (six months and one year) after the completion of the training to test the sustainability of the results; and

(5) we will design an implementation protocol by which the intervention can be used in other studies.

Our goal is to design a training program that is systematically tested and ready to be implemented as part of a structural national clean sports educational program. Our research question is: What is the effect of an advanced ethical decision making training (ADMT 2.0 with technological innovations), compared to a control group, on adolescent athletes' doping attitude, ethical decision making, and moral disengagement.

We designed four steps in our research:

1.   A pilot study, in which ethical decision-making dilemmas and technological innovations (serious game, app, and social media use) will be explored among 20 talented adolescent athletes, including interviews.

2.   Development of study protocol: development of the serious game, app, refinement of existing dilemmas (3) and the formulation of new dilemmas for each session (3 sessions in total).

3.   Intervention study with a pre measurement, three intermediate measurements, a post measurement, and two follow-up measurements. After each training session, an intermediate measure will be performed to observe immediate changes in doping attitudes and ethical decision-making. This enables us to monitor the effectiveness of each part of the program. Pre measurement and post measurements will give information on the effectiveness of the total program.

4.   Follow-up measures (6 months and 1 year) to test the sustainability of the results.

The intervention study, will consist of an experimental group and a control condition:

(1)   Advanced ethical decision making training (ADMT 2.0)

(2)   Control group (CG)

The ADMT 2.0 condition consists of:

-       Dilemmas on ethical decision making; based on the previous study, the pilot study, and the literature. The dilemmas focus on difficult ethical decision-making situations related to sport and doping, and at the same time, transfer knowledge of the doping rules, banned substances, when athletes are willing or at risk of using doping (e.g., after an injury), and the physical consequences of doping.

-       Technological innovations; (1) an educational (serious) game on ethical decision making with realistic and difficult situations, (2) an app that can be used on mobile devices, (3) an online platform with social media. By using these technological innovations, we aim to enhance adherence to the program, exchange information, promote discussions among participants, receive individual feedback on choices or dilemmas, and highlight aspects of the ethical training in a different manner. For instance, via a short realistic video the dilemma that was used in the ADMT 2.0 condition will be put forward. Similar programs have been offered in e-learning situations in which an e-learning platform is offered with many options, sometimes even personalized for users (24). In a systematic review on alcohol and drug prevention programs, the effectiveness of computer and internet-based programs has been established (25). As far as we know, the use of technological innovations and especially a serious game has not been part of prevention programs in a sport-context.

Details of the population, sample size, and recruitment methods

This study is aimed at young athletes (age 12 to 21 years), as they are at the beginning of the elite stage of their sports career and are in the process of developing moral thoughts and actions. Therefore, the target group is expected to be susceptible to doping prevention and educational programs.

A power analysis showed that a minimum sample size of 360 participants would be sufficient to obtain medium-sized effects (margin of errors 5%, 95% confidence interval, population size of 5.000 and 50%

response rate). Our target group consists of around 5000 (potential) elite athletes. We aim at a minimum of 500 participants and strive for 1000 participants.

Our recruitment method consists of two steps. First, we will select talented, (inter-) national level athletes (age 12 to 21 years). Second, the target group is approached via the Dopingautoriteit directly in obliged yearly information seminars, via their sports federations (two of which already agreed to participate) and via NOC*NSF. We will actively contact sports federations and involve them in the promotion and support of the intervention, e.g., via their own information channels. We will explain how we intend to contribute to the realization of a doping-free, fair-play sports climate in line with the spirit of sport. Also, as our study is content-related with the Dopingautoriteit information seminars, we can assume that athletes are familiar, at least to some extent, with the Dopingautoriteit and its activities and therefore more willing to cooperate. Also, in the Netherlands, the Dopingautoriteit has received quite some media-attention (due to sport doping affairs but also due to recent dope-free campaigns) in the past two years, which might also contribute to the familiarity with the institution. To enhance motivation to cooperate and decline attrition, we adopt technological innovations such as the educational (serious) game and app that enable us to be in close contact with participants and to study their steps in the training process. We can remind them to follow the training sessions, visit the online platform, or to fill out questionnaires. Therefore, we expect much higher response rates than what was realized in the previous study (3).

Inclusion criteria of the current study are (1) male and female athletes between 12 and 21 years, (2) active in individual or team sports such as speed-skating, track and field, strength sports, judo, tennis, swimming, handball, or other sports disciplines, and (3) high sport-level : national-level or talent pool. Exclusion criteria are: adolescent athletes that are not active in national competitions.

Materials

The variables is this study will be measured via questionnaires which will be outlined next.

Doping attitude

For the measurement of doping attitude, the Doping Susceptibility Measure (27) will be adopted. This measure captures individual opinions on the perceived likelihood that illegal drugs would improve performance, coaches or teammates would approve banned substances, or the chance that the athlete would be caught. A Dutch version will be prepared via the translation / back-translation method (28). Example item: 'If you were offered a banned performed enhancing substance under medical supervision at low or no financial cost and the substance could make significant difference to your performance and was currently not detectable, how much consideration do you think you might give to the above offer?'. Answer options differ per item, for instance on a 4-point Likert-scale ranging from none at all (1) to a lot of consideration (4). Higher scores indicate a higher doping attitude, that is, a positive attitude towards the use of doping.

Ethical decision making

To capture ethical decision making, two tests can be adopted; moral judgement test (to replicate the previous study) and unethical decision making.

Moral judgement test. As in the study of Elbe et al (3), the Moral Judgement Test could be applied. The test is composed of two steps. In the first step, participants are confronted with two moral dilemmas and the reaction to the dilemma. They have to judge whether the depicted reaction to the dilemma is an adequate reaction or not, given the circumstances. They can respond on a 7-point scale ranging from strongly disagree (- 3) to strongly agree (3). In the second step, 12 pro- or con-arguments have to be judged using a 9-point rating scale ranging from strongly reject (-4) to strongly agree (4). The test has shown sufficient test-retest reliability in previous studies.

Unethical decision making. The Unethical Decision Making scale (17) could be used in the current study (Cronbach's alpha = .80). Although this scale was originally designed to be applied in business situations, it can easily be adapted to sport situations. Respondents are asked to read a scenario and to evaluate 'How likely is it that you would engage in the behavior described?' using a 7-point scale ranging from 0 (not at all likely) to 6 highly likely. Cronbach's alpha for this scale was .74 and the construct validity was shown to be sufficient.

Moral disengagement

To assess athletes' moral disengagement, the Moral Disengagement Sport Scale (MDSS,29) could be used. This 32-item scale consists of six subscales: conduct reconstrual, advantageous comparison, nonresponsibility, distortion of consequences, dehumanization, and attribution of blame. Example item: 'Compared to physical violence, verbally provoking an opponent is not that bad'. A 7-point Likert scale ranging from strongly disagree (1) to strongly agree (7) is used. The concurrent and convergent validity of the overall scale was evidenced. Cronbach's alpha values ranged from .82 to .95. An alternative scale is a recently developed scale on Moral disengagement with respect to doping. We are aware that a new version of the Moral Disengagement Sport Scale for Doping is submitted for publication. When available, we prefer to adopt this six item scale as it is specific to doping.

For team players, we intend to examine team moral atmosphere that can be measured via two hypothetical doping scenario's and two questions, e.g., imagine that your teammates also have the opportunity to use the banned substance to enhance their performance in this important game, how many of your teammates would use the banned substance? An indication of athletes' level of agreement can be given on 7-point Likert scale ranging from (1) none of the players to (7) all the players.

For the intermediate measures of moral disengagement, the Moral Disengagement Sport Scale-Short (MDSS-S, 31) could be adopted. This unidimensional scale consists of 8 items.