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Book of Abstracts



Book of Abstracts – INDR 2022

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The use of samples originating from doping control procedures for research purposes: A qualitative study

Abstract

Background: The World Anti-Doping Agency is the international body coordinating anti-doping efforts, with the mandate of harmonizing anti-doping policy worldwide. With novel performance-enhancing compounds continuously entering the market, research is necessary to develop appropriate methods for their detection. WADA-accredited laboratories are required to spend 7% of their annual budget on this research and need to obtain ethics approval for studies involving human participants.

Method: Semi-structured interviews were conducted with stakeholders in anti-doping research to investigate the governance of antidoping research and their experiences toward the ethics review process of their research proposals. Interviews were transcribed, de-identified, coded and analyzed.

Results: The interviews indicated that large discrepancies in the evaluation of anti-doping research proposals exist. A majority of the laboratories could not acquire ethics approval for the administration of substances not approved for medical use. Some laboratories faced obstacles to obtain ethics approval for substances approved for clinical use. Respondents communicated that ethics committees often lack background knowledge about the antidoping context. The distinction between research and quality assurance in the International Standard for Laboratories (ISL) is neither well-understood nor interpreted uniformly by WADA-accredited labs. Interviewees considered that athletes should be better informed on what antidoping research can entail.

Conclusion: Ethics committees might disapprove research proposals because of concerns over the safety of the study, the fact that there is seldom a direct benefit to the participant, the consideration that volunteers may be incentivized to use prohibited substances, a lack of background knowledge about anti-doping, or the focus of research ethics committees on health research. Centralization of the Informed Consent Form in the ADAMS (Anti-Doping Administration & Management System) database would facilitate providing more information and allow the implementation of the right to withdraw.

Presentation based on

Devriendt, T., Sanchini, V. & Borry, P. (2020). "Ethics review in anti-doping research: experiences of stakeholders." *AJOB empirical bioethics* 11(2), 125-133.

Devriendt, T., Phillips, A., Shabani, M., & Borry, P. (2019). The use of samples originating from doping control procedures for research purposes: A qualitative study. *Journal of Empirical Research on Human Research Ethics* 14(3), 254-261.

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“I don’t consider myself a criminal”: A qualitative study exploring perceptions of and experiences with criminalization of anabolic steroid use among female and male users in Norway

Abstract

Background: Anabolic-androgenic steroid (AAS) use is associated with physical and mental health problems and aggression. In 2013, Norway criminalized to buy, possess, and use AAS on the grounds of preventing harm of users and third persons. Concurrently, AAS and other image and performance enhancement drugs (IPEDS) were included in the Norwegian Drug Policy, establishing rights to substance use disorder treatment. This study aims to explore personal perceptions of and experiences with criminalization of possession and use of AAS among female and male users.

Methods: Semi-structured interviews were conducted among 16 female and 18 male participants with current or previous AAS use. Narrative thematic analysis was applied focusing on self-experience of AAS use in relations to the law change and AAS-related experiences including interactions with the police, fines and imprisonment.

Results: Among the participants, ways of procuring AAS varied from production of, selling and buying AAS on the illegal male-dominated market to obtaining diverted testosterone from a friend in medical treatment. Participants did not perceive themselves as criminals as their AAS use was not experienced to affect a third part. Emerging themes related to experiences of criminalization of AAS use and possession were revealed: balancing risks of being punished with desired effect of AAS use, strategies to avoid being caught, feeling stigmatized, critical self-judgement, and avoiding health services despite health problems due to fear of consequences of reporting practices. Due to their muscular appearance, male informants had been selected, searched and tested at the gym by the police, leading to strategically changed behaviour involving training at night and storage of small amounts AAS. No females had been approached by the police, fined or imprisoned due to AAS-related offences, however participants expressed shame and self-stigma due to fear of consequences regarding disclosure of use, either to the police or health professionals. Women with irreversible masculinizing side effects and men with severe side effects tended to favour criminalization due to individual harms to protect young potential users. Among some participants who had ceased use due to side effects, criminalization was perceived as an extrinsic motivation to avoid restarting AAS use.

Protestant dopers and catholic abstainers. An empirical challenge of the hypothesis on the protestant cultural-religious influence on anti-doping behavior

Abstract

While the World Anti-Doping Agency (WADA) yearly publishes reports on the findings of Anti-Doping Rule Violations (ADRVs) across different sports, little is known about the use of prohibited substances among recreational athletes in different sports and different cultural contexts. It is true, that there are studies estimating doping prevalence in specific contexts, most notably in fitness and gym culture, and in association with popular sporting events such cycling “gran fondos” and city marathons. But up till now there has been no large-scale attempts to estimate doping prevalence in the general population of recreational athletes.

In 2021 a group of researchers working with the FAIR+ consortium conducted the hitherto largest multi-nation survey study on the use of prohibited substances and over-the-counter medicine for performance enhancement in recreational athletes. Reports were received from more than 7.000 European respondents in eight countries. Using indirect questioning in the form of Randomized Response Technique (RRT), we found a very low prevalence of dopers (0.4%), thereby debunking the myth that doping has contaminated all of sport. However, we did find differences in doping behavior between men and women, between different types of sport and between different regions of Europe.

For instance, the intentional use of prohibited substances to enhance sporting performance was estimated to be higher in protestant northern European countries compared to catholic southern European countries. In the presentation I examines the survey findings and discuss the results in relation to previous studies. A central argument is whether media-scholar Bernat Lopez’ hypothesis that the anti-doping campaign have been more successful in countries with a strong protestant cultural-religious background (López, 2012), also holds true when it comes to recreational athletes use of doping.

López, B. (2012). Doping as technology: a rereading of the history of performance-enhancing substance use in the light of Brian Winston’s interpretative model for technological continuity and change. *International Journal of Sport Policy and Politics*, 4(1), 55-71.

Lovely Dasgupta

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Mapping the Researchable in the anti-doping narrative: A Third World perspective

Abstract

The current anti-doping program, as envisioned and enforced by WADA, is equally dependent on dynamic anti-doping research. The current trends in the anti-doping research show that this purpose is being served effectively. A cursory review of the research priorities of WADA for 2022, establishes this point. They are wide ranging and do address issues crucial to accentuate the existing anti-doping program. Unfortunately, the missing link in these priorities is the concerns of the third world. The existing literature on the third world concerns is rudimentary in nature. Further the literature is primarily reactive in nature. As and when events impacting third world country athletes occur, one finds write ups on the issue. Thus, there is a need to map the researchable topics concerning third world concerns. A vigorous and in-depth research concerning the third world is the need of the hour. For the same will ensure that the existing anti-doping program is more inclusive as well as diverse. And hence it is the responsibility of researchers to map the researchable from the third world perspective.

Katharina Gatterer
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From Anti-Doping to Safeguarding – the BIU’s approach to clean and safe sport

Abstract

Safeguarding in sport is the process of protecting children and adults from harm and abuse by providing a safe space in which to play sport and be active. The Biathlon Integrity Unit (BIU) was established in 2019, with the aim protect the integrity of Biathlon and ensure a clean and trusted sport. BIU is operationally independent from the International Biathlon Union (IBU), and handles all integrity-related matters in Biathlon, including anti-doping, ethical breaches, betting-related issues and any kind of result manipulation and thus, taking on a multistrand approach. IBU’s Safeguarding Policy applies to everyone involved in Biathlon and ensures there are structures in place to prevent all members from harm and abuse. We conducted a survey among all NFs about the status quo in safeguarding, in order to identify potential gaps and offer optimal support to all stakeholders. This presentation will focus on the knowledge and experience we have gathered so far and conclude with an outlook including how we hope to continue to develop this field in collaboration with relevant international and national federations as well as academic institutions.

John Gleaves

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Review of WADA Anti-Doping Policy for Recreational Athletes

Abstract

The World Anti-Doping Agency (WADA) and its “Code” originally sought coordination and standardization of anti-doping regulations for international and elite sport. Over time, the Code expanded to include provisions for recreational athletes. Recreational athletes are defined by WADA as athletes below the International and National level of competition. These include junior athletes, master’s athletes, and amateur athletes participating in sport for recreation.

As Anti-Doping Organizations (ADOs) increasingly applied the Code to recreational athletes, a growing number of recreational athletes found themselves with Anti-Doping Rule Violations (ADRVs). Some discussion has already examined the appropriateness of anti-doping rules for recreational athletes (Henning, 2017; Henning & Dimeo, 2018). However, little discussion has examined the intention behind enforcing anti-doping rules in recreational sport or practical effects of applying WADA’s Code to recreational athletes.

Drawing on firsthand experience of an ADRV along with numerous cases involving other recreational athletes, this presentation will attempt to show several ways that the Code places recreational athletes in an impossible scenario that they are ill-equipped to navigate. Moreover, this presentation will argue that the sanctions dealt to the recreational athlete are disproportionate to the infraction with likely unintended consequences that are needlessly punitive. Finally, this presentation will argue for several concrete reforms that should provide ADOs with better policies for anti-doping enforcement with recreational athletes.

Henning, A. (2017). "Challenges to Promoting Health for Amateur Athletes through Anti-Doping Policy." *Drugs: Education, prevention and policy* 24(3), 306-13.

Henning, A. & Dimeo, P. (2018). "The New Front in the War on Doping: Amateur Athletes." *International Journal of Drug Policy* 51, 128-36;

Dimeo, P. & Møller, V. (2018). *The Anti-Doping Crisis in Sport: Causes, Consequences, Solutions*. Routledge.

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Kicking the habit - Psychosocial interventions to support cessation of anabolic androgenic steroid use

Abstract

Norway is one of few countries to include anabolic-androgenic steroids (AAS) in the politics of substance use and treatment. AAS use and possession was criminalized in 2013 and users got rights to substance use disorder (SUD) treatment. The deleterious effects of continuous AAS use lead to an increasing likelihood of AAS users experiencing harms, including dependence and presenting to health professionals. There is scarce evidence to inform treatment providers about treatment of AAS dependence. In Norway, the patient group is offered SUD treatment that includes psychosocial interventions such as interpersonal and informational activities with the aim of improving well-being, functioning and health. However, there is scarce evidence regarding effect and experiences of psychosocial interventions among AAS users. This study aims to explore what men who underwent SUD treatment experienced to be helpful psychosocial interventions to support cessation of anabolic-androgenic steroids.

Methods: In-depth interviews were conducted among eleven about their experiences as patients in SUD treatment to support cessation of AAS use. The interviews were tape recorded, transcribed verbatim and analyzed thematically.

Results: To enter SUD treatment was experienced as stigmatizing and alienating on a structural level due to having a healthy identity as opposed to having a drug problem. However, this became less important when being met with understanding and knowledge at treatment start. The health professionals' knowledge about AAS use and related health issues, his/her previous successful treatment of other AAS users and ability to provide psychosocial interventions based on individual needs were central elements for developing a therapeutic alliance, hope for positive outcomes and make a decision to continue treatment. The participants experienced to need different specific psychosocial approaches when making the decision to quit AAS use (psychoeducation, motivational interviewing), during the withdrawal phase (frequent social support sessions, psychoeducation about hypogonadism and mental health, psychiatric assessment), stabilization phase (reestablish social relations, problem solving, treatment of underlying mental disorder, develop strategies to prevent restarting AAS use). In addition, to have a relation to a treatment provider and being able to reconnect him/her after discharge was experienced as a safety net to avoid restarting AAS use.

Conclusion: People who use AAS are a heterogeneous group. Hence, health professionals' knowledge about AAS use, their ability to examine mechanisms of AAS dependence and provide psychosocial interventions based on individual needs throughout the course of treatment was in the current study experienced as important to be able to cease AAS use.

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“Oh my, the bigger and more fuller clit is amazing”: Reclaiming the female body
through a women-only doping forum

Abstract

Understandings of image and performance enhancing drugs (IPEDs) and their use has largely been conceptualized through the lens of male hegemonic patterns. Women’s IPED use has largely been obscured or understood as a threat to the “natural” gender order, both in research and in public discourse. The current presentation focuses on the social interactions taking place on an exclusive, women-only online IPED forum. The aim is to analyze how this forum is met within the broader male-dominated doping community and how issues related to IPED use and gender are addressed by women when their views are not backgrounded by potential male commentators and misogynistic discourses. Theoretically, the project feeds on the works of Rita Felski and her ideas on how to produce alternative gendered narratives of social phenomena. The results show that first-hand knowledge is disseminated by women on this forum, which contributes to the foundation of a women’s ethnopharmacological (sub)culture. Women, their bodies, and their experiences become the standard and the unspoken norm in the discussions. The secluded space allows women to challenge patterns of hegemonic masculinity, while building and reinforcing women’s lived expertise as the standard. This has implications for the formation of a “sis-science” based on women’s knowledge and experience, and how a harm-reduction culture in which women’s bodies are set as norm can be developed. Further, these findings stress the importance of moving beyond hegemonic conceptualizations to understand the ongoing socio-cultural changes to the gender balance of IPED use and to center women in IPED research.

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Hormonal treatment of anabolic androgenic steroid dependence: A pilot study

Abstract

Background and aims: Long-term use of anabolic androgenic steroids (AAS) poses risks to physical and mental health and has major negative impacts on social functioning and family life. In Norway, AAS-users have rights to specialized addiction treatment and among AAS-users seeking specialized health service, nearly 50% are either facing unemployment, on sick-leave, or are in need of social benefits. One common side effect of AAS-use is low self-production of testosterone which signs and symptoms (depression with or without suicidal ideation, fatigue, sleep disturbances, reduced libido and erectile dysfunction) last months to years following withdrawal. Many users restart AAS-use to alleviate these symptoms, which is a central contributing factor in the development of AAS-dependence. There is a knowledge gap on how to treat AAS-users who struggle to cease use. In this study, we aim to investigate whether hormone therapy is safe and if it effectively can reduce symptoms of testosterone deficiency during the withdrawal phase. We also aim to detect health risks associated with AAS-use and explore to what extent AAS-termination reverses these health risks.

Methods: In this longitudinal pilot study at Oslo University Hospital, AAS-dependent male users, recruited through social media and a national information service and referred to outpatient addiction treatment, will receive hormone intervention with clomiphene for 16 weeks. Participants are compared to male users who withdraw AAS without intervention on socioeconomic factors, self-reported withdrawal symptoms, degree of AAS-dependence, quality of life, body image perceptions and aggressive behaviour. Physical health parameters in the intervention group are monitored before, during intervention, and at follow-up 6 and 12 months after AAS-withdrawal. It will also be explored if the participants continue outpatient psychosocial treatment after the intervention.

Results: Study inclusion started in December 2021 and the first participants are now undergoing hormone intervention. The study protocol, the recruitment process and preliminary results will be presented.

Discussion and conclusion: Even though preventive measures are important to discourage people from starting using AAS, it is crucial to provide treatment options for current users wanting to cease use. This is the first clinical study investigating the effect of hormonal treatment on withdrawal symptoms following AAS-cessation. If the therapy model is proven to be safe and effective on withdrawal symptoms, it will generate key insights to biomedical therapy of this patient group and guide future randomized controlled trials. Experiences with the hormonal intervention and psychosocial treatment will be further explored in a qualitative study.

The first outline of the illicit doping market in Denmark: An analytical examination of performance and image-enhancing drugs seized by the police over a one-year period

Abstract

In most western countries, products containing well-known doping substances such as steroids, growth hormones, etc. are not available for over-the-counter sales, due to national legislation. Still, many of these products can easily be ordered online from either a country where it is legal for the manufacturers to make the products on a large scale production or from other more underground related sources. However, when the users do not buy their products from companies with the correct authorization, there is a chance that the products are categorized as falsified medicine due to no regulations. The aim of this study was therefore to examine all doping products seized from three police districts in Denmark and afterward be able to get an overview of the Danish illicit doping market.

The collected sample material consisted of 310 doping seizures with a total of 764 individual products. First, a physical examination of all products was performed. This included listing all relevant information such as the product name, manufacture, etc. After this, all products that did not state the content of growth hormone or other peptide-like ingredients were analyzed using an already developed gas chromatography-mass spectroscopy-based method. After physical and chemical examination of the products, results from both were compared to evaluate whether the products were related to an original production or could be categorized as falsified medicine.

Most of the products originated from either the US or India, where the most frequently found company, Alpha Pharma, is located. After examination, we found the most popular type of active pharmaceutical ingredient (API) was testosterone and its derivatives. When examining whether the seized products could be categorized as original or falsified products, we examined oral products and intra-muscular products separately. For the oral products, 67% did contain the correct stated API, 3% did not contain any API, 22% did not contain the same API(s) as stated on the packages and 8% of the cases were inconclusive due to no packaging available to compare with for the products. For the intra-muscular products, the numbers in the same order were 61%, 7%, 27%, and 5%. By having this knowledge regarding the Danish doping market, it is now possible to target future studies on urine, blood, or wastewater samples. Furthermore, the outcome of this study can be used to inform the users in Denmark about the products that they use and what they should be aware of when buying them.

Bengt Kayser

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“Never mind the bollocks, here come the sex hormones”

Abstract

Scientific research into sports and exercise mainly concerned men. We still know little about women's sport, and its biology and physiology, despite the biological sex differences between males and females. It is too simplistic to ascribe these differences just to different concentrations of 'sex hormones'. Sexual dimorphism, defined as the phenotypic difference between males and females of the same species, results from their difference in genetic make-up (in humans chromosome pairs XX for females and XY for males), while the concept gender refers to the social and cultural aspects of identity rather than a biological one. The general public and many scientists believe that testosterone, labelled as the quintessential male sex hormone, explains all the differences between males and females. This binary way of presenting things obscures the fact that females produce testosterone to function normally, notably for reproductive physiology. The scientific literature on 'sex hormones' and especially testosterone is biased with this binary idea and illustrates how biology and ideology are mixed up. I will not discuss the role of testosterone in the debate on sex, gender and sports categories, but rather present another aspect of this thematic, the use of hormonal contraception by females in elite competitive sport. This is because 1) hormonal contraception changes the female natural hormonal milieu; 2) hormonal contraception lowers female testosterone levels; 3) hormonal contraception is used to manipulate the natural female cycle in order to enhance performance; 4) some third generation oral contraception contains compounds with androgenic effects resembling those of testosterone with potential effects on physical and cognitive performance. My argument's objective is to highlight how a complex interaction between rapidly advancing biomedical (sports-relevant) scientific discovery, societal change with regard to sex and gender issues, and a zero-tolerance anti-doping ideology, leads to contentious results, which jeopardize the premises defining and protecting contemporary elite sport in general and for women in particular. I argue that this is in part because of the three criteria for inclusion on WADA's List of forbidden substances and methods. These criteria are reason for the potential inclusion on the List of oral contraceptive pills, especially in their androgenic form. The fact that they are not is yet another illustration of the lack of a solid scientific evidence-base for modern anti-doping policy in elite sport.

Doping Experiments on Leisure Sport Participants in the GDR: A Project Description

Abstract

Due to the state-led structure of the doping program, previous studies have understandably focused on exploring the political level and untangling the complex structures and mechanisms of the State Plan. One aspect of the GDR's doping program that is less well understood, researched, or recognized is the inclusion of leisure and recreational sport athletes as research subjects in state run doping experiments, of which the subjects included may number in the tens of thousands. To date, there has been little academic research on this topic that focuses on these subjects, contextualizes their experiences, or provides insight into the current impacts of this legacy on both sport and society. Whilst some studies briefly mention medical experiments on subjects outside the GDR's elite sport system, no in-depth exploration of the issue exists.

This project seeks to fill this gap by focusing on the historical and contemporaneous experiences of the non-elite (leisure, recreational level athlete) subjects of these experiments. Using mixed archival and qualitative methods, we will investigate the interventions and treatments that were carried out on recreational athletes in the GDR and explore how these results were used in support of the systematic doping program under State Plan 14.25. Additionally, we seek to investigate the outcomes of these experiments in terms of how and to whom results were disseminated, how they were translated into practical use (e.g., new pharmaceutical products), and the wider social implications of these experiments.

The overarching objective of this project is to investigate and analyze the development and socio-political impacts of the experiments carried out by the GDR government as part of State Plan 14.25 from 1974 to 1989 on subjects from leisure and recreational sports. Our specific aims in support of this objective are:

- To understand the scope and scale of experiments carried out on leisure sport subjects.
- To investigate the contemporaneous and contemporary experiences and legacy of the program for the victims (knowledge, consent, short term effects; long term effects, socio-political effects).
- To analyze the communication and further application of the experimental results to sport bodies, other countries, and to the wider medical and pharmaceutical fields and industries.

In order to meet these aims, we will rely on a mixed qualitative methodological approach, including both semi-structured interview and archival methods.

Daniela Lux
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Life after doping. Do consequences of an anti-doping rule violation threaten athlete's health? Design and development of an interview guide for the assessment of biopsychosocial changes following a doping ban.

Abstract

Introduction: The protection of athletes' mental and physical health is one of the twelve rights stated in the Athletes' Rights and Responsibilities Declaration [1]. Doping is considered a threat to athletes' health and is thus of high priority for International Sport Federations [2]. Indeed, an anti-doping rule violation (ADRV) might have considerable consequences for athletes' physical health [3, 4], though, considering the World Health Organization's definition of health, we should go beyond physical health and also include psychological and social health and well-being [5]. To date, only a few studies documented how elite athletes' life was affected after an ADRV, with all studies indicating drastic changes [5-7]. Protecting athletes' health even after a career termination following doping, can be considered an ethical demand and emphasises the need for providing specific support measures to help athletes cope with the life-changing consequences. However, developing support programs needs a scientific basis which is currently lacking.

Methods: First it was necessary to develop an appropriate instrument which would allow for scientific investigation. The present pilot-study therefore aimed to develop an interview guide following international recommendations [8]. Four Austrian elite athletes who had been sanctioned due to an ADRV took part in an online-brainstorming where they were asked to report important changes in the following dimensions of life: professional/financial situation, psychological well-being, social environment, physical condition, and attitude towards sport. Based on existing literature and brainstorming data, an interview guide was developed, tested in semi-structured interviews with the same athletes and evaluated using thematic analysis. Collated data was represented to the athletes to assess accuracy and completeness.

Results: Athletes reported mostly negative changes in areas of life, that have been documented in previous reports: occupationally/financially, socially, physically, psychologically, regarding sporting behavior and reputation in public. Given the congruency of the literature findings and the information provided by the athletes, we expect the current interview guide to fulfil the quality criteria of proximity to the object [9]. To enhance rigor and reliability, thematic analysis was done by four independent researchers and results were discussed in critical dialogue [10]. Overall, triangulation of different methods and final communicative validation with the participants increased the quality of the guide, which finally serves as an appropriate instrument for further research.

In the future the interview guide shall be used for examining life-changing consequences of ADRVs in depth to build a scientifically sound basis for the development of support programs.

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Efficacy of an Educational Program on Spanish Athletes

Abstract

Objectives: This study aims to evaluate the impact of the Spanish Anti-Doping Agency AEPSAD two educational programs for athletes, one being an online live seminar, and another an online course.

Methods: To determine their effectiveness, two analysis one carried out on participants of both programs. The online seminar had a sample of 353 athletes who completed the questionnaire before the seminar, of which 135 completed the same questionnaire one week after. As for the online course, 189 complete the questionnaire before the course and 98 after completing it.

Findings: Both populations showed great moral rejection and almost no doping intention before the educational programs. Effect statistical analysis showed no significant improvements in any of the variables under study: health risk perceptions, deterrence, moral position, or doping intention, except for ability to reject a doping offer in the online course group.

Discussion: Evaluation of educational programs is necessary to increase its impact and tailor appropriate interventions to specific groups. **Conclusions:** AEPSAD's educational interventions to elite athletes had no significant impact probably because the groups showed high doping rejection before the intervention.

Werner Pitsch

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Social determinants of doping in recreational sport - results from the FAIR+ project

Abstract

Although doping in recreational sport is an ever-recurring topic in academic and public discussions, little is known about its prevalence and about the social drivers behind it. Additionally, while for elite athletes, doping is a clearly defined issue, there is a grey zone between doping and medication use for performance enhancement for recreational athletes. The FAIR+ consortium therefore conducted a retrospective survey study in 2021 with indirect questions on doping, on medication use for performance enhancement during the pre-corona-year 2019. More than 7000 recreational athletes from 8 European countries participated in this study.

The analysis of social determinants of doping is based on a model, developed ex-post to explain a different doping prevalence in elite sport as well as in recreational sport between groups, competing at different levels (Pitsch, 2019). This economic decision model is based on the concept of consumer capital in the theory of rational addiction and predicts an influence of the performance level but additionally an influence of the time span, a sport has been played. So far, this model has been analytically checked for consistency in a social-scientific modelling approach but has not been tested empirically. By principle, it should also apply to the explanation of medication use for performance enhancement. The analysis of results from the FAIR+ project will therefore focus on these social determinants for doping, but also for medication use for performance enhancement. Additional sport-related factors (competing vs. not competing and playing sport in a sports club vs. outside a sports club) will also be inspected. The presentation will thus (1.) provide an empirical test of the aforementioned model, (2.) provide evidence if the model is also appropriate to medication use for performance enhancement, and (3.) shed light on further sport-related social determinants of doping and medication use for performance enhancement in recreational sport.

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An Influential Duo in Olympic Politics - The Power Games of Henri de Baillet-Latour and Sigfrid Edström

Abstract

Belgian aristocrat Henri de Baillet-Latour and Swedish industrialist Sigfrid Edström were the International Olympic Committee's (IOC) third and fourth President respectively, reigning over the Olympic Movement for a span of 25 years between 1925 and 1952. Whilst a few researchers have explored the two men's individual contributions to the IOC, surprisingly little is known about their collaboration as key influential figures within international sport. However, written evidence suggests that Baillet-Latour and Edström corresponded regularly ever since they had become members of the first IOC Executive Board in 1921. In this paper, we analyze those written exchanges in an attempt to demonstrate how the personal attitudes of Baillet-Latour and Edström shaped significant policies in the Olympic Movement such as the introduction of anti-doping regulations, the implementation of amateur regulations, and the handling of nationalistic tendencies. Existing historical research has identified the inter-war period as being important for nascent anti-doping regulation, as this was the period when the first policies were created by major sport organizations. We identify both anti-doping and other IOC policies impacted by the relationship between Baillet-Latour and Edström, as well as policies of the International Amateur Athletics Association (IAAF), of which Edström acted as President between 1913 and 1946. We argue that understanding their relationship is crucial when exploring the institutional histories of the IOC and the IAAF in the inter-war period. Many of the decisions had been already pre-determined by Edström and Baillet-Latour before they were brought into the IOC's and IAAF's official decision-making bodies. Documents from the Riksarkivet in Stockholm (Sweden), the IOC Archive in Lausanne (Switzerland) and the Sportimonium in Brussels (Belgium) are utilized for this research.

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Positive and negative side effects of androgen abuse. The HAARLEM study: A one-year prospective cohort study in 100 men

Abstract

An estimated 4-6% of fitness center visitors uses anabolic-androgenic steroids (AAS). Reliable data about adverse reactions of AAS are scarce. The HAARLEM study aimed to provide insight into the positive and negative effects of AAS use. One hundred men (≥ 18 years) who intended to start an AAS cycle on short notice were included for follow-up. Clinic visits took place before (T0), at the end (T1), and three months after the end of the AAS cycle (T2), and one year after the start of the cycle (T3), and comprised a medical history, physical examination, laboratory analysis, and psychological questionnaires. During the follow-up period, four subjects reported a serious adverse event, that is, congestive heart failure, acute pancreatitis, suicidal ideation, and exacerbation of ulcerative colitis. All subjects reported positive side effects during AAS use, mainly increased strength (100%), and every subject reported at least one negative health effect. Most common were fluid retention (56%) and agitation (36%) during the cycle, and decreased libido (58%) after the cycle. Acne and gynecomastia were observed in 28% and 19%. Mean alanine transaminase (ALT) and creatinine increased 18.7 U/l and 4.7 $\mu\text{mol/L}$, respectively. AAS dose and cycle duration were not associated with the type and severity of side effects. After one-year follow-up (T3), the prevalence of observed effects had returned to baseline. There was no significant change in total scores of questionnaires investigating wellbeing, quality of life, and depression. In conclusion, all subjects experienced positive effects during AAS use. Four subjects experienced a serious adverse event. Other side effects were mostly anticipated, mild, and transient.

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Doping prevention in recreational strength training environments: Outline of an evidence-based intervention strategy to reduce men's use of anabolic steroids

Abstract

It is well established that ordinary users of gyms and fitness centres outnumber elite athletes when it comes to using performance enhancing drugs such as anabolic androgenic steroids (AAS). For about as long as the phenomenon of 'fitness doping' has been known, governments and public authorities predominantly in European countries have made persistent attempts to prevent this form of doping. However, very little is known about the impact of these efforts because prevention programmes in this area are rarely subject to robust and long-term evaluation. Moreover, those in charge of developing and implementing these programmes often build the intervention strategy on the basis of what they think might work rather than from a systematic assessment of the factors underlying the decision 'to dope' and the behaviour change strategies that are most likely to effectively influence these factors. In this presentation, I present the findings of a study that aimed to address this gap by describing an intervention strategy to prevent and delay the onset of men's use of AAS in the context of recreational strength training. Methodologically, the study was conducted in three stages: 1) using recent methods and tools developed within behaviour science to identify behaviour change techniques that are likely to be effective in reducing risk factors for AAS use, 2) reviewing and synthesizing evidence from intervention research within the areas of i) doping, ii) traditional substance use, and iii) body image in order to specify the content of these techniques, and 3) conducting a 1-day workshop with the Danish national anti-doping organisation to refine the intervention strategy and discuss issues of implementation. The presentation will be concluded with a brief discussion of how this work can inform current and future efforts to prevent doping in recreational strength training environments.

Details of WADAs inefficiency in fighting doping through testing and sanctioning

Abstract

Stakeholders within youth sport (including administrators, parents, and school officials) are concerned with young athletes doping. While use is generally thought to be low, approximately 5% of adolescent athletes have used a prohibited substance. The negative physical and psychological side effects of many prohibited substances are exacerbated when used by young people (Casavant et al., 2007), which makes prevention of use of great importance. While there is a growing body of literature that examines adolescent athletes and the promotion of clean sport, the Caribbean stands out as a region where research on this population has been almost entirely absent. This is even though the Caribbean has a strong sporting history and culture, and a growing adolescent population.

To dissuade adolescents from doping, it is important to understand how adolescents are influenced. Social norms are one factor that can influence adolescents and their attitudes towards doping. Social norms are (generally) informal rules that are socially negotiated, context dependent, and guide behavior (Rimal & Lapinski, 2015). While some social norms can be learned from observation, others that involve private behaviors (such as doping or supplement use) are less easily witnessed. In such cases, based on primary socialization theory (Oetting & Donnermeyer, 1998), social norms may be formed by the ways in which young people interact with their peers and close others. In the current context, this would include the athletes' coaches and parents. Therefore, the purpose of this study was to explore how social norms are formed among an understudied population (i.e., Caribbean adolescent athletes) by examining the conversations they have with their friends and teammates, their coaches, and their parents.

To achieve this, a qualitative semi-structure narrative interview study (Kvale & Brinkmann, 2009) study is currently in progress. Approximately 30 participants, classified as Junior Elite or Junior Competitor status, will be recruited. Prospective participants are asked to complete a questionnaire to indicate the frequency in which they engage in a variety of conversations with their friends/teammates, parents, and coaches. Based on these responses, prospects are invited to be interviewed. With a narrative interview, participants are asked to recall a memorable time when they had a conversation on the topics of training, sport supplements, and doping, and then asked to describe that event in detail as if they were watching it play out in front of them. Data collection will be completed before the conference and preliminary findings shared and discussed.