SEMS-journal
Sports & exercise medicine switzerland

published online on 24.10.2022
https://doi.org/10.34045/SEMS/2022/14

OPINION EDITORIAL

# What Doping has Taught Us – A Call for the Implementation of Bioethics in Sports Medicine Education

EXERCISE IS MEDICINE

**Gähwiler Roman**[1,2]

[1] Institute for Biomedical Ethics and History of Medicine, University of ZurichUZH, Switzerland

[2] Vascular Institute Central Switzerland (Zentrum für Gefässmedizin Mittelland AG), Aarau/Baden, Switzerland

In this issue, we present the results of a survey named “Doping and the Sports Physician’s Role – The Swiss Experience”, in which the primary aim was to get an impression of the current situation among the community of Swiss sports medicine practitioners in terms of experiences and attitudes towards “doping” in sport. The purpose of this study was solely descriptive and explicitly not designed for declaring neither the opinion of the society of “Sports & Exercise Medicine Switzerland» (SEMS), nor the view of “Swiss Sport Integrity”.

Nevertheless, the findings of this descriptive analysis might be used in order to re-define the role of Swiss sports physicians as they represent an unparalleled group of medical sub-specialists. In fact, through the two years of training and education to become a certified “SEMS” sports physician in Switzerland, candidates gain specific knowledge in anti-doping regulations and sciences with respect to elite sports. In my opinion, education of future Swiss sports medical doctors ought to be intensified and expanded in this particular topic, both on the scientific and on the bioethical perspective. The evidence-based epidemiological data and our descriptive study strengthen my belief in the moral and ethical implication why such an effort is beneficial to both leisure and elite athletes in Switzerland. In fact, there have been several publications reporting that the estimated prevalence of doping and illicit drug use amounted to almost 7% in elite sports [1] and around 10% in leisure sports [2]. These relatively low percentage points might lead one to underestimate the number of athletes, particularly in leisure sports, and dismiss a relevant public health issue [3]. A notable finding in our publication was that 55% of the respondents never suspected (over the last two years) that their patient/athlete (leisure or elite) was using prohibited performance enhancing drugs (e.g. anabolic androgenic steroids) during their physical examination. Evidence-based data report 88% of male anabolic steroid users demonstrate at least one clinical symptom which points to their consumption [4].

In short, considering the probability at hand, we have to admit that we (SEM physicians) either are insufficiently educated to detect (sometimes subtle) clinical signs of doping, or affected athletes simply do

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not show up in our clinics. We cannot accept both options from a medical care perspective – at least according to my personal interpretation of (sports) medicine. A perfect "care approach" would mean we have the skills to detect suspicious signs of doping during a physical examination. Admittedly, doping is a prominent bioethical "playing field", but there are various domains of bioethical tension in sports medicine such as systematic physical overload with long-term health effects, delicate return-to-play decisions, difficulties in providing informed consent due to scarce evidence-based data, confidentiality issues due to certain contractual conditions or "locker-room-settings", and limited autonomy in decision-making processes because of conflicts of interest. These particular areas of tension need to be addressed systematically in the curricula of future SEM specialists. Modern SEM physicians must be able to identify signs of doping consumption and discuss these findings. Furthermore, they need to know the bioethical principles which automatically come into play when athletes "perform at the edge". Although the core of these principles is already integrated in the "SEMS Ethics Charter" [5], this set of skills need to be further developed.

A specific suggestion might be to expand the already existing SEMS education courses by adding two lectures named "Bioethical Principles and Anti-Doping in Sports & Exercie Medicine". The organization as well as a proposition of content is presented in table 1.

| Curriculum | Content | Supplementary Explanation |
|---|---|---|
| Lecture 1 (à 45 min) | Brief History of<br>– Sport & Sports & Exercise Medicine<br>– Doping in Sports | Short introduction on important events of sports and sports & exercise medicine history. Short overview on the development of doping in sports, the epidemiology of doping (elite & leisure sports), as well as cross connections to and involvement of physicians is provided. |
| | Ethics in Sports & Exercise Medicine | Introduction to biomedical ethics and its principles which are specifically applicable to sports medical practice (virtuous practice, principles approach, utilitarism, deontology). |
| Lecture 2 (à 45min) | Fields of Bioethical Tension in Sports & Exercise Medicine | Description and sensitization of young sports doctors in order to be able to identify the «top ten» fields of bioethical tension in sports & exercise medicine such as doping, return-to-sports decisions, autonomous and shared decision making concerning potential long-term health issues, locker-room confidentiality, or informed consent. |
| | Practical Ethics and Case Training | Practical application and clinical reasoning on behalf of bioethical principles within 2-3 case report discussions. |

Table 1

To conclude, doping teaches us that bioethical analysis and principle-guided clinical reasoning represent important traits of modern high-quality sports medicine practice. Education and training in bioethical principles based on "SEMS Ethics Charter", case discussions and identification of clinical signs of doping substance abuse, as well as acquisition of communication skill to lower the threshold to address "doping

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issues" in the "doctors-patient diad" are essential. We should consider the implementation of such resources into SEMS education of future sports doctors, since it may add to the already existing high-quality SEMS education.

## Acknowledgments, conflict of interest and funding

No conflict of interest. No funding.

## Corresponding author

Roman Gähwiler
Zentrum für Gefässmedizin
Mittelland
Täfernstrasse 1, CH-5405 Baden
Tel. 056 483 00 80
E-Mail: roman.gaehwiler@angiologie-aargau.ch

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