# TRANSGENDER'S RIGHTS TO SPORT COMPETITIONS FOLLOWING THE NEW RECOMMENDATIONS OF THE INTERNATIONAL OLYMPIC COMMITTEE (2021)

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**Abstract.** The topic of human rights is taking on new relevant forms, especially when it comes to transgender rights. Their right to participate in sports has always been a subject of much debate. In November 2021 the International Olympic Committee adopted the new recommendations "Framework on Equity, Inclusion and Non-Discrimination on the Basis of Gender Identity and Intersex" on transgender people, which declared that each federation has to decide for itself when setting its own rules regarding the right of these people to participate in sports competitions. So, one thing is clear there is no common position on this issue. The article aims to reveal the practical aspects of such regulation regarding the possibilities and limitations of transgender participation in individual sports. The applied research methods are analysis of legal acts and other documents, review of articles and scientific literature, and qualitative comparative analysis. The research results showed that despite the principles specified in the Framework prohibiting discrimination, in practice these principles can be difficult to harmonize, especially if we speak about fair competition and equal opportunities. **Keywords:** gender identity, human rights, International Olympic Committee, sports competition, transgender.

# Introduction

Human rights guarantees and non-discrimination influence disagreements and debates about transgender<sup>1</sup> opportunities in sports. The development of transgender opportunities to participate in sports competitions was characterized by the fact that initially the determined gender of the athlete was checked using the nudity method, later - the Barr body test<sup>2</sup>, and finally the requirements for the level of testosterone in the blood were established. It should be noted that debates and controversies usually arise over the participation of transgender women (male to female) in the sport. In the opinion of the majority of scientists, testosterone is one of the factors that determine the fundamental differences in sports results between biological men and women. According to this indicator, women are

<sup>&</sup>lt;sup>1</sup> Transgender is a person which gender identity differs from the sex assigned to them at birth.

<sup>&</sup>lt;sup>2</sup> Barr body is found in cells of organisms where sex is determined by the presence of Y or W chromosome. For example, Barr's body testing was used in 1968 in the Olympic Games to detect male athletes representing female athletes and thereby gaining a competitive advantage.

different from men, also because of different hemoglobin content, muscle mass, body structure, strength, etc. In addition, testosterone and its metabolites are included in the list of prohibited substances as definitely improving sports performance (eg, see World Anti-Doping Code, article 2, 2021 and Prohibited List, 2024). But what constitutes the boundaries of fair competition can become a tricky question in every sport. For example, weightlifter Anna Van Bellinghen from Belgium claimed that trans woman athlete Laurel Hubbard competing against females in the Olympics is unfair, saying it "feels like a bad joke." (Spitznagel, 2021). Or another example, then former tennis champion Martina Navratilova said: "To put the argument at its most basic: a man can decide to be female, take hormones if required by whatever sporting organization is concerned, win everything in sight and perhaps earn a small fortune, and then reverse his decision and go back to making babies if he so desires. It's insane and it's cheating" (Humphrys, 2019).

In November of 2021, after discussions with athletes, consultations with international sports federations and human rights organizations, and legal and medical experts the International Olympic Committee (IOC) published recommendations entitled "IOC Framework on Equity, Inclusion and Non-Discrimination on the Basis of Gender Identity and Intersex". Practically this document is left to sports federations and organizations themselves to decide and establish their own eligibility criteria for participation transgender in sports competitions. Hasn't this led to more chaos by self-imposing requirements and/or restrictions on transgender participation in different sports?

This article aims to reveal the practical aspects of such regulation regarding the possibilities and limitations of transgender participation in individual sports.

Noteworthy in this article, the author analyzes the practical aspects of the implementation of these recommendations of the International Olympic Committee regarding transgender's possibilities to participate in different sports. This article is a continuation of the analysis presented in the author's article "Transgender's Issues in Sports Competitions"<sup>3</sup>.

The applied research methods are analysis of legal acts and other documents, review of articles and scientific literature, and qualitative comparative analysis. Legal acts and documents are analyzed presenting IOC recommendations and requirements of sports federations and organizations for transgender athletes' participation in sports competitions. A review of articles and scientific literature was presented to show the actuality of the problem. The qualitative comparative analysis helped to make critical review of some regulations of international sports federations or organizations in transgender sports competitions comparing them with the principles, declared in the IOC Framework.

<sup>&</sup>lt;sup>3</sup> See SOCIETY. INTEGRATION. EDUCATION. Proceedings of the International Scientific Conference. Volume II, May 26th, 2023. 615-623. http://journals.rta.lv/index.php/SIE/article/view/7135/6168.

### **Review of Literature**

Starting from 2022, after the new IOC Recommendations, many different opinions regarding the transgender right to participate in sports competitions appeared in the media. Both positive and negative opinions regarding the application of the new recommendations were presented. For example, one of the articles could be mentioned with a positive opinion – "The Future of Women's Sport Includes Transgender Women and Girls" (Shultz et al., 2022) or the paper with a more negative review: "Media Framings of the Transgender Athlete as "Legitimate Controversy": The Case of Laurel Hubbard at the Tokyo Olympics" where authors analyze the role of the media in framing transgender participation in sport as a 'legitimate controversy', and thus up for public debate during and after New Zealand weightlifter Laurel Hubbard's debut at the 2020 Tokyo Olympics (Scovel et al., 2023).

Scientific articles on this topic could be sorted by the medical, sports experts or lawyers' reviews. For example, the article "Sports Medicine Considerations When Caring for the Transgender Athlete" analyzed the transgender athlete's health problems which they meet receiving exogenous estrogen therapy (Madeline et al., 2023). The article "Musculoskeletal health considerations for the transgender athlete" reviews the common gender-affirming medical and surgical treatments, unique musculoskeletal health considerations, and participation policies for transgender athletes (Birnbaum et.al., 2023). In the article "Disparities in sport participation of transgender women: a systematic and scoping review protocol" the authors describe a review protocol to understand disparities in sports participation of transgender women (Hamdan et al., 2023). The article "Joint position statement of the International Federation of Sports Medicine (FIMS) and European Federation of Sports Medicine Associations (EFSMA) on the IOC framework on fairness, inclusion and non-discrimination based on gender identity and sex variations" critically analyzes new Framework (2021) of the International Olympic Committee (IOC) where the authors "would like to see further discussion and consultation with all stakeholders leading to a balanced framework that protects the rights of all athletes and gives IFs the tools they need to ensure inclusion and fairness" (Pigozzi et al., 2022). More legal theoretical philosophical points of view were found in the article "Fair Competition and Inclusion in Sport: Avoiding the Marginalization of Intersex and Trans Women Athletes" where the author argues about problems finding a balance between fair competition, inclusion and non-discrimination (see, Cooper, 2023).

Also, many papers could be sorted by type of sport (Hardwicke et al. "Drafting behind LGB: Transgender athletes in the sport of cycling", 2023), country (for example, in USA, see Larsen "Hurdles for Transgender Athletes: States Passing Bans on Transgender Athletes Primes a Fight over Title IX and the Fourteenth Amendment", 2022) or transgender's age (for example, Barrera et al. "The Medical Implications of Banning Transgender Youth from Sport Participation", 2021)

It should be mentioned the article "The status of transgender and intersex athletes in international sports federations" which based on an analysis of the overview of the directives in force within the various international sports federations in swimming, cycling, football, athletics, tennis, etc. (Bydzovsky, 2023).

In another article "Who counts as a woman? A critical discourse analysis of petitions against the participation of transgender athletes in women's sport" where the author analyzes the organizational anti-trans discourse on the presence of transgender athletes in women's sports including their petitions against transgender women in sport competitions: transgender women have natural (biological) advantages; women's sport should be protected; segregation in sport should be based on sex (not gender) etc. (Jakubowska, 2023).

# IOC Recommendations (Framework on Fairness, Inclusion and Non-Discrimination on the Basis of Gender Identity and Sex Variations, 2021): critical analysis

"IOC Framework on Fairness, Inclusion and Non-Discrimination on the Basis of Gender Identity and Sex Variations" was approved by the IOC Executive Board during its meeting on 12 November 2021 (Framework, 2021). The main fundament on which was built this Framework is human rights and nondiscrimination. These Recommendations presuppose the protection of such social values as health, safety, dignity, fairness, a safe, harassment-free and welcoming environment, gender equality, and inclusion. Noteworthy, is that this document acknowledges the central role that eligibility criteria play in ensuring fairness, particularly in high-level organized sports in the women's category. That means it is very important to keep the right segregation in men's and women's sports.

This document includes and explains these principles: inclusion, prevention of harm, non-discrimination, fairness, no presumption of advantage, evidencebased approach, primacy of health and bodily autonomy, stakeholder-centered approach, right to privacy, and periodic reviews. Most of them are the common principles of law and, for example, such principles as "inclusion" and "nondiscrimination" complement each other, or "primacy of health and bodily autonomy" with the right to privacy.

"Prevention of harm" means that "sports organizations should identify and prevent negative direct and indirect impacts on athletes' health and well-being that may come from the design, implementation, and or interpretation of eligibility criteria" (2.2, Framework, 2021). Such recommendation for sports organizations allows for a very broad interpretation of what is meant by negative direct and indirect impacts on athletes' health and well-being by establishing certain criteria.

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But from the other point of view, always there is the possibility to apply to the Court of Arbitration of Sport, to an ombudsperson or to seek a mediation mechanism (6.2b, Framework, 2021). The Court of Arbitration of Sport in one of its overviews mentioned, that "The IOC framework was issued as part of the IOC's commitment to respecting human rights (as expressed in Olympic Agenda 2020+5), and as part of the action taken to foster gender equality and inclusion. From March 2022 onwards, IFs are responsible for defining how this framework works in practice and applied to specific sports, disciplines and events. One of the key recommendations of the IOC framework is that diverse gender identities and variations in sex characteristics should not be assumed as an unquestionable sign of disproportionate advantage nor imply unavoidable risk to other athletes. Rather, any eligibility rules should be based on ethical, credible, and peerreviewed research" (Sport and Human Rights, 2023). Noteworthy, the case of Semenya v. Switzerland (10934/21) in the European Court of Human Rights (ECHR) could be an example of defending sports athletes' rights not only in the Court of Arbitration if sports organizations use negative direct and indirect impacts on athletes' health and well-being by establishing certain criteria. In the case of Semenya v. Switzerland (this case is not dealing with transgender issues directly) the ECHR held that there had been a violation of the prohibition of discrimination taken together with the right to respect for private life as well as a violation of the right to an effective remedy. The case concerned an athlete Semenya, specializing in middle-distance races, who complained about certain regulations of the International Association of Athletics Federations requiring her to take hormone treatment to decrease her natural testosterone level in order to be able to take part in international competitions in the female category. After refusing treatment, she could not participate in international competitions.

The principle of "non-discrimination" in the Framework is practically described as the prohibition of discrimination on gender identity ensuring fairness. It allows to make criteria to determine disproportionate competitive advantage requiring testing of an athlete's performance and physical capacity. However, no athlete should be subject to targeted testing because of, or aimed at determining, their sex, gender identity and/or sex variations. Fairness must be maintained by prohibiting a disproportionate competitive advantage, preventing a risk to the physical safety of other athletes, and preventing athletes from claiming a gender identity different from the one consistently and presently used during the sports competition. The question arises of two competing rights: the right to fair competition and the right to non-discrimination. In practice, these principles can be difficult to harmonize - they can be contradictory to each other. The creation of some criteria in different sports federations to determine disproportionate competitive advantage requiring testing of an athlete's performance and physical capacity could be disproportional with the principle of "non-discrimination". For example, World Athletes made a new document "Eligibility Regulations for Transgender Athletes, 2023" where eligibility conditions for transgender female athletes consist of these regulations: "They must provide a written and signed declaration, in a form satisfactory to the Medical Manager, that their gender identity is female; they must not have experienced any part of male puberty either beyond Tanner Stage 2 or after age 12 (whichever comes first); since puberty, they must have continuously maintained the concentration of testosterone in their serum below 2.5 nmol/L..." (Eligibility Regulations for Transgender Athletes, 2023). Comparing these regulations with the past requirements (10 nmol/L in 2011; 5 nmol/L in 2018) seems discriminatory compared with the past regulations.

The principle of "no presumption of advantage" in the Framework could be compared with the legal principle of "presumption of innocence", which means that any defendant in a criminal trial is assumed to be innocent until they have been proven guilty. Also the principle of "no presumption of advantage" is described as prohibition to preclude or exclude an athlete from competition on the exclusive ground on a verified, alleged or perceived unfair competitive advantage due to their sex variations, physical appearance and/or transgender status, until it proved contrarily (the principle of ,,evidence based-approach"). Any restrictions should be based on robust and peer-reviewed research. These criteria to recognize this restriction as justified are: a) "demonstrates a consistent, unfair, disproportionate competitive advantage in performance and/or unpreventable risk to the physical safety of other athletes; b) is largely based on data collected from a demographic group that is consistent in gender and athletic engagement with a group that the eligibility criteria aim to regulate; and c) demonstrates that such disproportionate competitive advantage and or preventable risk exists for the specific sport, discipline and event that the eligibility criteria aim to regulate" (6.1, Framework, 2021). In the opinion of the author, exactly the last criterion is the most important, because it requires an evidence-based approach.

The principle of "primacy of health and bodily autonomy" seeks to protect athletes from medically unnecessary procedures or treatment to meet eligibility criteria for gynecological examinations or similar invasive physical examinations, aimed at determining an athlete's sex, sex variations or gender. It also includes the education of coaches, managers and other members of the entourage to prevent interpretations of their eligibility criteria that can lead to harm (7.3, Framework, 2021). The primacy of health and bodily autonomy is a principle, which could be explained as "the interests of the human should always take precedence over the interests of science and society". Moreover, it is a principle of medical ethics that requires non-harm.

In general "right to privacy" includes lifestyle, family status, living environment, relationships with other persons, individual's views, beliefs, habits, physical and mental condition, health, honor, dignity, physical and psychological integrity, aspects of a person's physical and social identity, personal identification,

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name, sexual orientation, sex life, ethnic identity, the right to personal development and the right to establish and develop relationships with other people, the right to image, etc. Following the Framework the principle of "right to privacy" aims to protect athlete's personally identifiable information and medical information. The importance of informed consent for athletes to determine eligibility to compete in a male or female category is declared in this Framework also. It means that the athlete must have sufficient information and understanding before making decisions about his/her collection of data obtaining of determine eligibility to compete in the men's or women's category. "Sports organizations should avoid public disclosure of athletes' confidential health and other personal information in the absence of the athlete's consent. In addition, sports organizations should consult with the athletes concerned on the best ways to publicly communicate about their eligibility" (9.4, Framework, 2021). Analyzing not only the last principle but also all together, it should be emphasized, that many different responsibilities and duties are transferred to the shoulders of sports federations and organizations. This is justified because different categories of sports require different criteria for strength, muscle mass, and other similar qualities. However, on the other hand, implementing these principles requires a lot of resources, research, and knowledge, and other competencies that are not always available in these organizations.

# Transgender rights in different sports competitions: implementation of IOC Recommendations

The international sports federations or organizations are responsible for the integrity of their sport on the international level (see International Sports Federations, IOC). In this part of the paper's author analyzes some policies about transgender athletes of international sports federations and organizations (see IOC implementing these IOC Recommendations (Framework).

# Eligibility Regulations for Transgender Athletes (World Athletics, 2023)

These regulations of the World Athletics were approved by the Council on 23 March 2023 and came into effect on 31 March 2023. As announced in these Regulations, the opportunity to participate transgender athletes in the sport must be based on these imperatives: equal opportunities to all athletes; to maintain separate classifications (competition categories) for male and female athletes (because of different levels of circulating testosterone); fair and meaningful competition; dignity and privacy of transgender athletes. It should be emphasized that already in the introduction of the document itself, there is a clear indication of the requirements for the level of testosterone which, as was mentioned before, is significantly lower than the previous requirements. By these Regulations, a transgender athlete who wishes to be eligible to compete in the classification consistent with their gender identity must follow many rules regarding the

cooperation promptly and in good faith with the Medical Manager and the Expert, (to the fullest extent permitted and not contrary to applicable laws) to the collection, processing, disclosure and use of information (including their sensitive personal information) as required to implement and apply these Regulations effectively and efficiently and so on. (2.1, Regulations, 2023). Strong rules are made also about disagreements rising from these Regulations: "All cases arising under these Transgender Regulations will be dealt with by the World Athletics Health and Science Department, rather than by the Member Federation of the Athlete concerned (or by any other body) unless the Medical Manager specifically asks for their assistance with respect to a particular case" (2.4, Regulations, 2023). There is the possibility of a member federation adopting its own regulations to determine the eligibility of transgender athletes to compete in competitions, but only taking place under its own jurisdiction that are not World Rankings Competitions. Otherwise, it will not be recognized the athlete's performance for World Records or World Rankings purposes. Following the eligibility conditions for transgender female athletes Regulations determine all these conditions: "they must provide a written and signed declaration, in a form satisfactory to the Medical Manager, that their gender identity is female; they must not have experienced any part of male puberty either beyond Tanner Stage 2 or after age 12 (whichever comes first); since puberty they must have continuously maintained the concentration of testosterone in their serum below 2.5 nmol/L; they must continue to maintain the concentration of testosterone in their serum below 2.5 nmol/L at all times (i.e., whether they are in competition or out of competition) for so long as they wish to retain eligibility to compete in the female classification at World Rankings Competitions and/or have recognized any World Record performance in the female classification at a competition that is not a World Rankings Competition" (3.2, Regulations, 2023). After transgender athletes could not participate in the other sex classification in World Rankings Competitions or have recognized any World Record performance. These Regulations could be recognized as very strict rules against transgender (see, Nair, 2023).

# Eligibility Regulations for Transgender Athletes (Chapter V, Part 13 – Medical Rules, UCI Cycling Regulations)

Union Cycliste Internationale is the world governing body of cycling. This organization approved some changes in their Cycling Regulations which came into force on 17<sup>th</sup> July 2023. Exactly Chapter V, Part 13 regulates the participation of Transgender athletes in the sport of Cycling (Eligibility Regulations for Transgender Athletes, 2023). The imperatives regarding these Regulations practically are very similar to Eligibility Regulations for Transgender Athletes for all athletes to participate in and excel at the sport, and to provide them with fair and meaningful competition conditions; separation

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classifications (competition categories) for male and female athletes (because of different levels of circulating testosterone); respect the dignity, privacy and similar. These rules also determine the requirements for cooperation and information provision for transsexuals who wish to participate in sports competitions; the requirement of written consent and so on. (13.5.009, Regulations). All cases arising under these Regulations are dealt with by the UCI Medical Department. Regulations determine five requirements for transgender (male-to-female) to compete in the female category of competition at an international event: declaration about their gender identity (female); they must not have experienced any part of male puberty either beyond Tanner Stage 2 or after age 12 (whichever comes first); since puberty they must have continuously maintained the concentration of testosterone in their serum below 2.5 nmol/L; maintaining the concentration of testosterone in their serum below 2.5 nmol/L at all times (i.e. whether they are in competition or out of competition) for so long as they wish to retain eligibility to compete in the female category of competition at international events; all measurements of serum testosterone must be conducted by means of liquid chromatography coupled with mass spectrometry (13.5.015, Regulations). Transgender athlete to be eligible to compete at an International Event, in the category of competition that is consistent with their gender identity: 1. legal recognition of the athlete's gender identity; or 2. surgical anatomical changes. Also here are the terms of the restriction on the participation of the opposite sex in the competitions.

Summarizing this review, it can be recognized that the rules for transgender athletes' participation in sports competitions are sufficiently strict - based on low limited testosterone level, not having experienced any part of male puberty and other requirements. Therefore, these regulations could be criticized not only by human rights experts but also by litigations that could be reached in arbitration or other courts.

### Conclusions

Sport is an area where clear gender segregation is maintained, but the inclusion of transgender people in sports causes some confusion. Prevention of harm, non-discrimination, inclusion, fairness, no presumption of advantage, evidence-based approach, the primacy of health and bodily autonomy, stakeholder-centered approach, right to privacy, and periodic reviews are the main principles provided in IOC Recommendations "Framework on Fairness, Inclusion and Non-Discrimination on the Basis of Gender Identity and Sex Variations" and from the point of view of human rights it is recognized as a positive aspect. In practice, these principles can be difficult to harmonize, especially if we speak about fair competition and equal opportunities.

This Framework opened a very wide interpretation of transgender athletes' rights in sports competitions. But also left the establishment of concrete rules for different kinds of sports on the "shoulders" of the sports federations and organizations. The creation of some strict criteria in different sports federations to determine disproportionate competitive advantage requiring testing of an athlete's performance and physical capacity could be disproportional with the principle of "non-discrimination". Such regulations could become a reason to dispute it in the arbitration or courts.

#### References

- Barrera, E., Millington, K., Kremen, J. (2021). The Medical Implications of Banning Transgender Youth from Sport Participation. *JAMA Pediatric*, *176*(3),223-224. Retrieved from: https://jamanetwork.com/journals/jamapediatrics/article-abstract/2786338
- Birnbaum, A., Karamitopoulos, A. & Carter, C. W. (2022). Musculoskeletal health considerations for the transgender athlete. *The Physician and Sportsmedicine*, 51(5), 387-393.Retrieved from: https://www.tandfonline.com/doi/abs/10.1080/00913847.2022. 2057787
- Bydzovsky, P. (2023). The status of transgender and intersex athletes in international sports federations. *The International Sports Law Journal, 23*, 357–367. Retrieved from: https://link.springer.com/article/10.1007/s40318-023-00250-9
- Cooper, J. (2023). Fair Competition and Inclusion in Sport: Avoiding the Marginalization of Intersex and Trans Women Athletes. *Philosophies*, 8(2), 28. Retrieved from: https://www.mdpi.com/2409-9287/8/2/28
- Court of Arbitration for Sport. (2023). Sport and Human Rights (Overview from a CAS perspective). Retrieved from: https://www.tas-cas.org/fileadmin/user\_upload/CAS\_Human\_Rights\_in\_Sport\_November\_2023\_.pdf
- Eligibility Regulations for Transgender Athletes (2023). World Athletics. Retrieved from: file:///C:/Users/Administrator/Downloads/C3.5%20%E2%80%93%20Eligibility%20Re gulations%20Transgender%20Athlete.pdf
- Eligibility Regulations for Transgender Athletes (Chapter V, Part 13 Medical Rules). Cycliste Internationale. Retrieved from: https://assets.ctfassets.net/76117gh5x5an/4IN1nV5fh XCZLfbbrvSKMc/40c4453ae53655796e148573ca008ecf/20230714\_Modification\_Tra nsgender\_Regulation\_Juillet\_2023\_ENG\_red.pdf
- Hamdan, J. L., Shipper, A. G., Roth, S., and Zisman-Ilani, Y. (2023). Disparities in sport participation of transgender women: a systematic and scoping review protocol. *BMJ Journals*, 13(7): e074054. Retrieved from: https://www.ncbi.nlm.nih.gov/pmc/ articles/PMC10357786/
- Hardwicke, J., Roberts, C. J., Anderson, E., Magrath R. (2023). Drafting behind LGB: Transgender athletes in the sport of cycling. Sage Journals. International Review for the Sociology of Sport, 59 (1), 58-81. Retrieved from: https://journals.sagepub.com/doi/ full/10.1177/10126902231178613
- Humphrys, J. (2019). Transgender Athletes: Fair or Unfair Competition? YouGov UK. Retrieved from: https://yougov.co.uk/sport/articles/22603-john-humphrys-transgender-athletes-fair-or-unfair-

International Federations. Retrieved from: https://olympics.com/ioc/international-federations International Olympic Committee. Framework on fairness, inclusion and non-discrimination on

the basis of gender identity and sex variations (2021). Retrieved from:

https://stillmed.olympics.com/media/Documents/Beyond-the-Games/Human-Rights/IOC-Framework-Fairness-Inclusion-Non-discrimination-2021.pdf

- Jakubowska, H. (2023). Who counts as a woman? A critical discourse analysis of petitions against the participation of transgender athletes in women's sport. Sage Journals. International Review for the Sociology of Sport. Retrieved from: https://journals.sagepub.com/doi/abs/10.1177/10126902231194570
- Larsen, D. (2022). Hurdles for Transgender Athletes: States Passing Bans on Transgender Athletes Primes a Fight over Title IX and the Fourteenth Amendment. *HeinOnline*. 95-118. Retrieved from: https://heinonline.org/HOL/LandingPage?handle=hein. journals/lsex31&div=8&id=&page=
- Madeline, M., McGovern, M.D., Natalie, A., Lowenstein, M.P.H., Elizabeth, G. Matzkin, M.D. (2023). Arthroscopy, Sports Medicine, and Rehabilitation, 5(4), 100736. Retrieved from: https://www.sciencedirect.com/science/article/pii/S2666061X23000780
- Nair, A., (2023). Explainer: What is World Athletics' proposal to tighten transgender rules? *Reuters*. Retrieved from: https://www.reuters.com/lifestyle/sports/what-is-world-athletics-proposal-tighten-transgender-rules-2023-03-23/
- Pigozzi, F. et al. (2022). Joint position statement of the International Federation of Sports Medicine (FIMS) and European Federation of Sports Medicine Associations (EFSMA) on the IOC framework on fairness, inclusion and non-discrimination based on gender identity and sex variations. *BMJ Open Sport & Exercise Medicine*, 8(1). Retrieved from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8739444/#R1
- Schultz, J., Baeth, A., Lieberman, A., Pieper, L. P., Sharrow, E. A. (2022). The Future of Women's Sport Includes Transgender Women and Girls. *Emerald Studies in Sport and Gender. Justice for Trans Athletes*, 17-29. Retrieved from: https://www.emerald.com/ insight/content/doi/10.1108/978-1-80262-985-920221002/full/html
- Scovel, S., Nelson, M., Thorpe, H. (2023). Media Framings of the Transgender Athlete as "Legitimate Controversy": The Case of Laurel Hubbard at the Tokyo Olympics. Sage Journals, Communication & Sport, 11(5), 838–853. Retrieved from: https://journalssagepub-om.skaitykla.mruni.eu/doi/full/10.1177/21674795221116884
- Semenya v. Switzerland (10934/21) (Semenya c. Suisse -French version). European Court of Human Rights. Retrieved from: https://hudoc.echr.coe.int/eng#{%22itemid%22: [%22001-225768%22]}
- Spitznagel, E. (2021). Trans women athletes have unfair advantage over those born female: testosterone. *New York Post*. Retrieved from: https://nypost.com/2021/07/10/trans-women-athletes-have-unfair-advantage-over-those-born-female/
- World Anti-Doping Code (2021). Retrieved from: https://www.wada-ama.org/sites/default/ files/resources/files/2021\_wada\_code.pdf
- World Anti-Doping Code, International Standard Prohibited List (2024). Retrieved from: https://www.wada-ama.org/sites/default/files/2023-09/2024list\_en\_final\_22\_ september\_2023.pdf