

Transgender athletes in combat sports: to fight or not to fight?

Nitin K Sethi, MD, Department of Neurology, New York-Presbyterian Hospital, Weill Cornell Medical Center, New York, NY, USA (Email: sethinitinmd@hotmail.com)

Victor Khabi, MD, Department of Orthopedics, Northern Westchester Hospital, Mount Kisco, NY, USA

Keywords: boxing, MMA, transgender combatants

DISCLOSURES: The views expressed by the authors are their own and do not necessarily reflect the views of the institutions and organizations which the authors serve.

There is ongoing debate on transgender athletes' participation in various sports at the amateur and professional levels. Much of the debate is centered around transgender women competing in women's sports, as it is felt that the transgender athlete shall have an unfair advantage over their cisgender woman competitor(s). Higher testosterone level, differences in body fat, musculature, and bony structure are some of the reasons postulated to give the transgender woman an advantage over her cisgender competitor.

The International Olympic Committee (IOC) guidelines require that all transgender women athletes declare their gender and not change that assertion for at least four years, as well as have a testosterone level of less than 10 nanomoles per liter for at least one year prior to competition and throughout the period of eligibility.¹ Could the above IOC guidelines be adopted for combat sports? Should a transgender woman be granted licensure to fight a cisgender woman in a professional boxing or MMA bout? The first question which will need to be answered is whether this shall be a fair bout. While testosterone can be used as metric to ensure fairness at the time of the bout,

many would argue that by a time a transgender woman combatant launches her professional career she has already gone through male puberty, thus conferring her with the musculature and bony structure of a male. Such a combatant may have an unfair advantage over her cisgender woman combatant. Combat sports such as boxing are unique since every punch thrown at the head is thrown with the intention of winning by causing a knockout (aka a concussion), resulting in these sports carrying an exceedingly high risk for both acute and chronic neurological injuries. Boxers have died during a bout or in the immediate aftermath due to traumatic brain injuries (TBIs) such as an acute subdural hematoma (SDH), epidural hematoma (EDH), subarachnoid hemorrhage (SAH), intracranial hematoma, and injury to the great vessels of the neck such as carotid or vertebral artery dissection. Allowing a transgender woman to compete raises concern for the health and safety of her cisgender woman combatant. However, genetic differences are found in athletes of the same sex. Muscle build, joint flexibility, speed, and agility are variable traits which give one athlete an advantage or disadvantage over the opponent(s). These innate genetic traits along with

intense physical training and physical and mental stamina are what give a combatant an edge over a competitor. It is what distinguishes a champion from a runner-up in combat sports.

The IOC allows transgender men athletes (athletes who transitioned from female to male) to participate without any restriction. Should a transgender man be granted licensure to fight a cisgender man in a professional boxing or MMA bout? The first question which will need to be answered is whether this shall be a fair bout. While testosterone can again be used as metric to ensure fairness at the time of the bout, many would argue that by a time a transgender man combatant launches his professional career he has already gone through female puberty thus conferring him with the musculature and bony structure of a female. Such a combatant may be at a disadvantage against his cisgender man combatant. Allowing this bout to take place raises concern for the health and safety of the transgender male combatant. However, in the case of a transgender male with a superior skill set, better training and superior mental and physical stamina than his cisgender male opponent, is a transgender male athlete really at risk of injury competing in this scenario?

Transgender rights is an important issue on which the combat sports community should not turn its back. The combat sports community should recognize the gender identity of an individual and champion to protect transgender individuals against discrimination at their workplace, in employment, education, and access to healthcare. The issue of transgender athletes competing in professional combat sports, though, needs to be debated, scientifically studied, and decided purely on scientific and medical grounds based on concrete evidence-based medicine with the foremost goal of protecting the health and safety of all combatants. In the end, we want two equally skilled and matched athletes competing in the cage or ring, on a level playing field. This is the best way to keep the matches fair, competitive, entertaining, and safe for all combatants. If we follow where the science leads us, we shall accomplish this goal.

References

1. Wikipedia. Transgender people in sports. https://en.wikipedia.org/wiki/Transgender_people_in_sports#:~:text=There%20is%20ongoing%20debate%20over,different%20muscle%20and%20fat%20distribution. (Last accessed on Feb 7, 2021).