

Transgender Athletes: What Makes Competition Fair?

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As society has become more comfortable with expressing gender and sexual identities, the world has been faced with a new variety of problems. One such situation has been referred to as “sports’ unsolvable problem” (Brassil & Longman, 2020). This problem, in simpler terms, is whether or not to allow transgender people to compete in sports with cisgender people. Such a topic speaks to equality, equity, safety, and fairness and has an effect on both transgender athletes and cisgender athletes and their families alike. School districts throughout the world are faced with this difficult situation, but it does not end with high school, instead reaching major leagues, professional levels, and the Olympics. In order to better understand this issue and to form an educated opinion on what the best solution is to this unsolvable problem, I consulted several scholarly articles and began my research. As my research went on, I found that I could not personally form an opinion about whether or not transgender people should compete with cisgender people. However, I do feel that the masses benefit from participating in sports. Athletics allows people to relieve stress, maintain health, and be true to themselves. Is it ethical for society as a whole to take that away from a group of individuals? On the other hand, is it ethical for a natural-born male to compete against a group of females? With high testosterone levels coursing through blood streams and enlarged muscle mass, cisgender female athletes are placed at a disadvantage. Current regulations allow for heightened testosterone levels in transgender females, which places them at a biological advantage. Adjustments need to be made to current policies in order for fairness to reign supreme on the sports fields.

Understanding Appropriate Terminology

In order to have an educated opinion on this situation and to be privy to acceptable and correct terms used in this context, it is important to understand the vocabulary used by the

LGBTQ+ community. Important terms to understand include transgender, gender identity, sex, gender, gender expression, and intersex. First, a transgender person is someone who experiences an incongruence between the gender they were assigned at birth, which is based on the appearance of genitals, and the person's gender identity (Jones et al., 2017, para. 1). Gender identity is a person's internal sense of gender, which can be male, female, or somewhere else on the continuum (Jones et al., 2017, para. 1). Sex is defined as the biological, physiological, and anatomical make up of an individual and categorizes people as male or female. This is based on someone's chromosomal makeup (Lucas-Carr & Crane, 2011, para. 5). Gender, however, is defined as socially constructed and refers to how people present themselves through attire, physical appearance, and mannerisms (Lucas-Carr & Crane, 2011, para. 5). Gender expression is how a person moves, speaks, dresses, and acts (Lucas-Carr & Crane, 2011, para. 5). Finally, intersex is a condition in which a person is born with both male and female genitalia. In this case, the person can choose what sex they are and are not considered to be transgender, but can be easily added into the conversation surrounding transgender people. Additionally, a transgender female is a person who was assigned male at birth but transitioned to female. The same is likewise for a transgender male.

Transgender People in History

Equally important to the understanding of this topic is the history of transgender people. Transgender people have been present in society for thousands of years, but have remained closeted due to the stigma surrounding their personal circumstances. The term transgender appeared for the first time in American writing in 1965, but the word was not commonly used until the 1990's (Stryker, 2016, p. 1). Despite the fact that transgender people were not routinely acknowledged early on does not diminish the fact that they were present. Transgender people

have been documented in America as early as 1528, when Alvar Nunez Cabeza de Vaca wrote about his experiences with males who “lived and worked as women” (Stryker, 2016, p. 3). In 1629, the first legal records of a transgender person, Thomasine or Thomas Hill, are documented. A transgender woman in the early 1800’s was the first to express her desire for surgical changes to her body in order to match the gender she felt she was. The next leap in this journey happened in 1910 when sex hormones were discovered. With this discovery came the understanding that the hormones could be administered to transgender people. It was not until 1966 that John Hopkins became the first sex reassignment clinic in the United States (Stryker, 2016, p. 15). For many years leading up to this, genital reconstruction surgery had been possible, but was reserved for cases of genital abnormalities.

So why has it taken until 2020 for transgender athletes’ rights to come into question? It is likely because it has taken such a long time for the idea of being transgender to be accepted. In 1696, laws were put into place to make cross dressing illegal. Not only that, but “gender variance in societies of western European origin, including dominant U.S. culture, has most often been understood as something antisocial, sinful, criminal, or psychopathological- and thus in need of correction” (Stryker, 2016, p. 5). Sex reassignment surgery has only become available for those seeking to change their gender within the last 60 years. Most senior citizens in the United States were born in a time period when it was not socially acceptable to be transgender. It is only now that the concept of being transgender is being more widely received. As the number of transgender people who have come out rises, the debate about their rights also increases. The most recent and visible debate surrounding transgender people is their participation in sports.

Regulations to Play

Every organization has different restrictions and guidelines as to what makes a transgender person eligible to participate. These guidelines are found in middle and high schools, professional sports leagues, college sports, and the Olympic games. Because few to no federal laws are in place with regards to what standards a person must meet to play, organizations have been left to make their own rules. Big changes have started taking place, though. In 2004, the International Olympic Committee (IOC) met and decided on a policy that is known as the “Stockholm Consensus” (Genel, 2017, para. 3). The purpose of this meeting was to clear up confusion and create strict guidelines for all nations to follow. Before, some athletes were only allowed to compete based on what their birth certificate read, while others only had to meet anti-doping rules. In 2016, the IOC met again and changed the guidelines they had put into place to be more lenient. The committee would no longer require athletes to surgically transition before they participated in sports, as well as no longer requiring proof via a birth certificate. Instead, regulations changed to this: testosterone levels must be at a volume below 10 nanomoles per liter (10 nmol/L) of blood for at least one year before being permitted to compete (Stryker, 2016, para. 5). This number has become an understood standard as to what a transgender female’s testosterone level must be to participate in sports. If these standards were not met, the athlete would be eligible to compete in the male category. The uncertainty of hormone levels creates unknowns for the athlete as well as their teammates. Unfortunately, this alternative could be distressing for the athlete, who will feel they are competing in the wrong group. The athlete may be subject to being outed in an unwanted fashion, and to embarrassment that could be exploited by news stations worldwide. These problems, however, are not specific to the Olympic games and can be seen at any level of sport.

High school guidelines can be just as confusing. Every state in the United States has different rules regarding transgender athletes. According to “High School Transgender Athlete Policies” (2020), there are four categories that a state may fall under in regards to their restrictions on transgender athletes. The first is the black zone, where there is no guidance given by the state. This typically leaves any decisions up to the school’s principal or superintendent. The second zone is red and is considered to be discriminatory in several different ways, such as requiring the student to participate under the sex stated on their birth certificate. Blue is the third zone and requires medical proof for the athlete to compete. The fourth and final zone is green and is seen as “transgender friendly.” States in this zone have very few guidelines that they must follow and allow for students to participate under the sex that they identify with.

Unfortunately, things are not so clear at higher levels, as guidelines become blurred without federal or worldwide regulations. Any organization can set rules into place, and for that reason, create confusion and uncertainty for the transgender athletes who wish to compete. For example, the National Collegiate Athletic Association (NCAA) and British Rowing have relatively loose guidelines. Cross hormone treatment is the only requirement, and paperwork for proof is necessary for transgender females. The NCAA does not even have a set blood testosterone level needed for transgender females to compete (Genel, 2017, para. 9). On the other hand, the Ladies Professional Golf Association and the International Association of Athletics Federation have a much more rigid set of guidelines. Transgender female athletes are required to undergo sex reassignment surgery before they compete for these institutions (Jones et al., 2017, para. 28).

Alternatively, there are very few guidelines for transgender males. This is because often, society views women as the weaker sex. Physiologically, they have less muscle mass, less

endurance, and less strength. This, however, does not mean that women cannot excel in sports while competing with men. Females are known for having a greater pain tolerance, increased flexibility, and being more graceful (Lucas-Carr & Krane, 2011). Hypothetically, this would mean that a transgender male could be at an unfair advantage in sports like gymnastics, ballet, and figure skating without regulations in place. The 2016 IOC policy does not follow this particular thought process, as male athletes have no restrictions under which they must participate (Stryker, 2016, para. 5). Similarly, the International Association of Athletics Federation does not require transgender males to undergo sex reassignment surgery as the transgender females are (Jones et al., 2017, para. 28).

Testosterone

It is easy to claim either way that testosterone is the answer to this complicated question. For transgender males, it is simply put: They have much less testosterone than the cisgender males and are therefore at a disadvantage until testosterone is administered. The answer for transgender females is much more complicated. People who support transgender athletes will cite that transgender females have lowered their blood testosterone content in order to level the playing field. Those who oppose will support their point of view with the same evidence: The athlete still has a higher level of testosterone in their blood than the cisgender females with whom they compete.

Testosterone is measured in nanomoles. According to the website *My Health Alberta* (2019), “a mole is an amount of a substance that contains a large number (6 followed by 23 zeros) of molecules or atoms. A nanomole (nmol) is one-billionth of a mole” (para. 1). Although this is a very small amount of testosterone, it can have a colossal impact on the person whose body in which it resides.

But what is testosterone, why does it matter, and why is testosterone the answer to such a complex and pressing question? Testosterone is produced by the male testes and adrenal glands and released into the bloodstream (Pietrangelo, 2018, para. 5). This particular hormone is known for increasing a man's libido, but, in fact, has an array of other effects on the body. Testosterone increases a man's confidence and aggression levels, which can lead to a better athletic performance (Pietrangelo, 2018, para. 12). In the male body, testosterone has effects such as an increase in protein synthesis, thereby creating a greater muscle mass, expanding bone density, and burning fat cells at a more accelerated speed (Pietrangelo, 2018, para. 13-14). Finally, testosterone leads to an increase in red blood cells, naturally giving males higher endurance and more efficient oxygenation throughout the body. A typical range for a male's blood testosterone level is 10.41 to 34.70 nmol/L (Burbs, 2017, para. 11).

Women also have a specific level of testosterone in their blood, 0.52 to 2.43 nmol/L (Burns, 2017, para. 11). This hormone can cause significant damage to the female body and heightens risks for certain diseases when above the normal range. On the flip side, testosterone can have a positive effect on one's athletic performance. A woman with slightly higher testosterone levels is likely to have better endurance, be more aggressive, and be stronger, therefore giving her a competitive edge over her competition.

As previously mentioned, testosterone is measured in nanomoles, and each biological sex has a range in which the blood testosterone level typically hovers. According to the IOC, who sets the standard by example, 10 nmol/L of testosterone is plenty low enough for a transgender female to compete in sports with cisgender females. The problem with this standard is shown when it is compared with typical testosterone levels of cisgender people. With 10.41 nmol/L of testosterone setting the lower boundary for cisgender males and 2.43 nmol/L of

testosterone setting the upper boundary for women, it is difficult to understand how 10 nmol/L of testosterone is a fair standard for transgender females. For some athletes, they will only need to lose .41 nmol/L in order to compete. This is hardly enough when compared to the 7.57 nmol/L that would be needed to bridge the gap between the IOC's standards and the highest level of testosterone in the cisgender female range. When the body has 10 nmol/L of testosterone compared to the 2.43 nmol/L, there is a significant increase in characteristics that allow for a better athletic performance. In order for competition to be fair to the cisgender athletes with whom the transgender female is competing against, the testosterone level needs to be in the same range. Simply lowering the body's natural testosterone level is not sufficient.

Transgender athlete, Natalie Washington, is a perfect example of this concept. Washington comes from Europe and plays soccer, also known as football. She deferred from transitioning until later in life because her passion for the sport trumped all else. When she did eventually transition, Washington was faced with a fear that would shake anyone: She was unsure if she would be able to compete in the sport she loved ever again. She was able to find a place with the Football Association (FA), which took situations like hers on a "case by case" basis. To compete, the FA required either a complete gonadectomy or hormone therapy. In either case, the athlete would need to be able to provide results showing that their blood testosterone levels were that of a cisgender female. The athlete would need to have a testosterone level under 1.5 nmol/L for at least one year before participating in competition (Burns, 2017, para. 11).

Washington began her physical transition with hormone replacement therapy and doses of antiandrogen and synthetic estrogen. It did not take long for the physical effects to take place. Washington clearly states that she was no longer able to compete at her former level. She has

less endurance, needs a longer rest between workouts, and has suffered from muscle atrophy (Burns, 2017, para. 17). Not only that, but she is struggling to stand out as a player on the girls' team, when before she was a star on the male team. Some may argue that a restriction for such a low testosterone level is taking away a natural gift. That may be so, but with so many other factors at play, safety and a fair playing field are top priorities.

Another example of the effects of lowering testosterone is the case of June Eastwood, a long-distance runner. Eastwood attended the University of Montana and competed on the track and cross-country teams. According to Brassil and Longman (2020), Eastwood was the first transgender woman to compete in a Division One NCAA cross country race. Unfortunately for her, the decrease in testosterone in her body caused her athletic performance to wither. Before her transition, Eastwood competed on the men's cross country and track teams at University of Montana (Brassil & Longman, 2020, para. 36). On the men's team, Eastwood stood out as one of the most successful athletes, but after her transition, she was only mediocre on the women's team.

The same article in the *New York Times* addressed a study done in 2019. This particular study followed eleven transgender women as they went through a full year of testosterone suppression and hormonal treatment. The transgender women were measured and tested before the treatments were given, and the same were taken again a year later. From this study, it was found that the subjects had a very small decrease in the strength of their thighs and only a 5% loss in their muscle mass (Brassil & Longman, 2020, para. 43). It is easy to understand why people are split on whether or not hormone suppression is enough, as cases are unique and do not seem to follow any specific pattern of severity.

The Necessity of Sport

Of course, taking part in physical activity has a variety of benefits for any person. Exercise releases endorphins and hormones that improve one's mood and energy levels. It can give a person a sense of purpose and kickstart the body. As someone exercises, they become stronger, and their body more efficient. Sport also has a positive effect on a person's social skills and development as well as their psychological state ("Gender Affirming," 2019, para. 1). These positive outcomes are important for anyone, transgender or cisgender.

Nonetheless, sports have shown many positive outcomes specifically for transgender people. Studies show that students in the LGBTQ+ community who participate in sports have a better grade point average by .2 points than those who are not involved in sports. Additionally, LGBTQ+ students in sports have a better grade point average by .4 points than students outside of the community ("Gender Affirming," 2019, para. 1). An astounding 56% of LGBTQ+ members who participate in sports say that they feel a stronger sense of belonging ("Gender Affirming," 2019, para. 2).

Finally, for those who do plan on going through a gender reassignment surgery, weight is an important factor. Millions across America have watched the reality television show, *I am Jazz*, as transgender female, Jazz Jennings, struggled to lose weight for reassignment surgery. She was not alone in this intimidating task, but without losing the required amount of weight, Jazz would not have been able to complete her transition the way she desired. Competing and participating in sports allows transgender athletes to maintain a healthy weight for any desired procedures and gets the body strong enough to encourage a fast recovery.

Solutions

The most common solution brought up by those who believe transgender athletes should not compete with cisgender athletes is that a league be created specifically for transgender people. In theory, this is a logical statement, but when the number of transgender people around the world who compete in sports is brought up, the idea no longer seems practical. For example, there are approximately 200,000 women who compete in collegiate sports, with only 50 estimated to be transgender (Brassil & Longman, 2020, para. 32). Not only is the number of athletes small, but they are spread across the world, making a transgender league impossible to coordinate on a regular basis. Transgender athletes have been allowed to compete in the Olympic games for years, but the 2021 Tokyo Olympic games, which have been postponed due to the Corona Virus pandemic, had only a handful of transgender athletes (Brassil & Longman, 2020, para. 24). In this case, it would not be logical to spend the immense amount of money that it takes to put on the Olympic games for fewer than a dozen people.

In conclusion, athletes who abide by regulations should have a right to compete, and transgender people are not an exception. In order to level the playing field surrounding testosterone levels and the effects they have on athletic performances, regulations need to change. First, regulations need to become more consistent worldwide. Without this, athletes could be denied access to events due to inconsistencies in regulations from organization to organization. Clear and consistent guidelines will allow athletes guidance for their training program. Secondly, evidence shows that testosterone can have immense ramifications, even in the smallest volume. In order to have an equal playing field for both transgender and cisgender athletes, testosterone levels need to be lowered for transgender females. Regardless of the fact

the person is transgender, a cisgender female should not be competing against someone with testosterone levels nearly equal to a cisgender male. There is no doubt that transgender athletes should be able to participate in sports, but that equality should extend in both directions, with hormone levels equal to the desired sex. In the process of streamlining regulations for athletes, one of the most important changes would be a lowered testosterone level in transgender females in order to create competitive fairness.

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