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Research Paper

Gender Affirming Care Is Life-Saving

Introduction

Transgender identities and their experiences have become highly polarized and politicized within the country's current climate. The rights of transgender persons have become under siege, with the reasoning being built on a foundation of misinformation and ignorance. Taking a step back to reflect and review the different aspects that come together in curating the transgender identity is vital in understanding the fight for transgender rights. To identify as transgender is to resonate and embody a gender that is different from the one assigned to you at birth using physiological features like the genitalia. Many transgender individuals may experience an incongruence between their physical identity and gender expression, often known as gender dysphoria. This incongruence can cause major emotional and mental turmoil, as a result, gender-affirming care is often used to help treat this feeling. Gender-affirming care is a range of different procedures and tools that allow transgender people to affirm their gender identity to fruition and make it a physical reality. These treatments have been shown to save lives safely while improving the quality of life for transgender individuals.

Hormone Therapy

Hormone therapy is the first step in an individual journey in transitioning sex to their desired gender identity. Gender-affirming hormonal therapy (GAHT) is the use of hormones in an effort to reduce the production of hormones already produced in the body to be replaced by hormones that align with their gender identity, (Heath & Wynne 2019). These physiological changes will take place in the first few months of taking the hormones however it may take up to two years to fully see results. There is a range of different hormonal therapies that can be received in a variety of different ways, orally, by injection, pills, gels, and even sprays. The application method varies based on each patient's different needs, such as cost and availability. It's important to note that GAHT isn't the final or only step in transitioning as gender identity is a mental feeling, not a physical one. GAHT is solely used to help the person better identify in their body in a way that they feel most comfortable. For many identifying as a male but living in a female body or vice versa can feel extremely limiting and frustrating which is the basis of gender dysphoria. These physical changes have long-lasting implications for how gender dysphoric individuals view themselves and their place in society.

Feminizing therapy is the use of hormones in an effort to feminize the body and create more of a feminine look. Feminizing GAHT usually consists of estrogen hormones with a combination of anti-androgens. Estrogen produces female characteristics such as breast growth, while antiandrogens are used to suppress male characteristics such as body hair. Anti Androgens are used if the individual still has their gonads/testes, the presence of testes produce testosterone and the use of estrogen is not enough to lower testosterone levels to match that of a cis female level. The use of anti-androgens may result in a lower amount of estrogen needed to see results as there is less testosterone to compete with. There are three main prescriptions, cyproterone acetate (CPA), spironolactone, and GNRHas. CPA and GNRHas both work by lowering

testosterone levels towards that of cis-females. Spironolactone is used as a receptor blocker which results in a lower decrease in testosterone levels. (Defreyne, J., Vander Stichele, C., Iwamoto, S. J., & T'Sjoen, G, 2023). The U.S Endocrine Society provides a guideline on the estradiol levels that should be the target of 100 to 200pg/mL and testosterone levels less than 50ng/dL (Heath & Wynne, 2019). These parameters are an estimate of what the body is able to take in a safe way, there have not been any thorough studies connected to the exact amount of estrogen or testosterone needed.

Along with the lack of research surrounding the exact amount of hormones needed, there is also a lack of a specific time frame. However, it is believed that replicating the timing of cisgender female puberty with estrogen dosages every 2-3 months with a gradual increase over time can lead to the best development of physical traits like breasts (Heath & Wynne, 2019). The changes on a physiological level will start to begin within the first 1-3 months of therapy, with a reduction in libido and a decrease in erections. This decrease in libido and sexual drive is attributed to the lack of free testosterone in the body as an effect of estrogen. Whether this is viewed as a negative thing is based on the individual, however those who don't like this lack of sex drive can opt to partially suspend testosterone levels to above 5 nmol per liter. Suspending testosterone levels to stay above 5 nmol can limit the feminizing effects of estrogen, leading to fewer physiological changes.

The most sought-after results are usually observed after 3-6 months of therapy, which is the development of breasts, which can take up to 2 years to fully develop. A helpful way to understand the process of GAHT is to think of it as putting the body through puberty all over again, and the process of puberty in adolescents takes place over the course of years. GAHT simply recreates the puberty process. Another effect of feminizing GAHT is the change in body

fat and muscle distribution, leading to “an increase in both subcutaneous and internal or visceral fat” (Heath & Wynne, 2019), these fat deposits aren’t seen in such rates in cis-gendered males. Subcutaneous fat is fat stored just below the skin surface, while visceral fat is fat that is stored deep within the abdominal organs, cis gendered females tend to have higher amounts of both subcutaneous and visceral fat.

Masculating hormone therapy is the use of hormones to induce virilization, which is the development of characteristics that are associated with male hormones otherwise known as androgens, using testosterone. Masculinizing GAHT uses testosterone to develop male characteristics over time from a time period of 2-5 years which is a little longer than that of estrogen GAHT. The target range of testosterone levels, presented by the U.S. Endocrine Society, in those in masculine GAHT should be “between 320 and 1,000 ng/dL” (Heath & Wynne, 2019). It’s important to note that such as seen in feminizing GAHT studies have not been conducted on a scale that will allow for a concrete number or set range.

The most known characteristics of Masculinizing GAHT include an increase in both facial and body hair, voice pitch drop, and muscle mass growth. Many of these physical changes can be observed in the first few months of administration, but as said before it will take several years for maximal results to be achieved. The body composition will also start to change as seen in feminizing GAHT, but in the opposite effect. The body will start to redistribute its body fat to match that of a cis-gendered male. A decrease in subcutaneous and visceral fat will be observed. While an increase in muscle mass will begin. These results are most commonly seen around 6 months after starting testosterone therapy. It will take around a year for the individual to see a complete difference in body composition. Menstruating individuals will start to observe the loss of vaginal bleeding around 2-6 months after starting therapy, this cycle stops due to the

testosterone suppressing certain hormones in the pituitary gland that are responsible for inducing a menstrual cycle (Heath & Wynne, 2019).

It is important to note that testosterone can be known to cause certain effects on behavior. An emotion that is sometimes observed in individuals taking testosterone hormone therapy is an increase in aggression. This increase in aggression isn't necessarily a bad thing, as aggression doesn't automatically mean violence. Certain individuals may just experience different emotions more severely. This behavioral change is often observed due to the sudden intake of the hormone. Dramatically increasing testosterone is more likely to result in a much bigger shift in emotions, just as any sudden change to our body chemistry might. Testosterone is also known to cause overexcitement in an individual which can manifest in different ways including aggression.

Potential Risks

There is a common misconception that the use of GAHT is detrimental to an individual's health in the long term, however, there are no current studies or research that support this claim. Along with any medical intervention, there are certain risks involved, however, in GAHT there is a very low risk of any complications that can lead to death or serious illness. Perpetuating misinformation that GAHT can cause cancer or other serious illness is not only false but limits the options available to transgender individuals. This false argument only prevents the real risk from actually being seen and understood which leaves room for error in decision making.

It is believed that transmasculine individuals who participate in GAHT are at risk for Oncological complications. Oncological risk refers to the development of tumors throughout the body. While it is true that hormonal manipulation can cause certain types of cancer GAHT has

shown no evidence of putting trans people at risk. A well-known fact is that prolonged exposure to estrogen can lead to a higher risk of breast cancer, meaning that transmasculine people taking testosterone are at a lower risk of breast cancer due to their low estrogen levels due to the increase in testosterone. Heath and Wayne (2019) explore a study “of 795 Dutch trans men on testosterone therapy yielding data for 15,974 person-years, only one case of breast cancer was diagnosed. This translated to a rate of 5.9 per 100,000 person-years, similar to the rate observed in the cisgender male population” (Heath & Wynne, 2019). This study presents the fact that transmasculine people are at no more risk than their cisgender counterparts, showing no basis in the Oncological risk surrounding transmasculine people.

Another potential risk is the long-term effects of GAHT on bone health. When hormones are manipulated this can change the bone health of the individual, leading to a decrease in bone density and mass, however, the opposite has been observed in transmasculine men. “Van Caenegem et al. [77] described a small increase in trabecular BMD at the distal radius over the first year of GAHT in a group of 23 transmasculine people. The increase in trabecular BMD may be caused by the ...testosterone-mediated increase in muscle mass, leading to higher bone remodeling due to strain on the bone” (Defreyne, J., Vander Stichele, C., Iwamoto, S. J., & T'Sjoen, G, 2023). This study refutes the idea that GAHT may hurt bone health leading to a decrease in bone density. Instead, it has been observed that transmasculine men who have been taking testosterone have shown an increase in bone density. This increase in bone density is attributed to the increased strain the bones are put under as the body starts to redistribute muscle mass and fat, which can put a strain on different bones than prior GAHT. Another potential risk that may be argued that transmasculine people may face is an absence of fertility, however, this isn't true. We know testosterone stops vaginal bleeding and menstruation however when

testosterone is stopped it is still possible for pregnancy to take place. “It has been hypothesized that testosterone therapy may lead to polycystic ovarian morphology, and therefore, transmasculine people should proceed with fertility preservation before initiating GAHT” (Defreyne, J., Vander Stichele, C., Iwamoto, S. J., & T'Sjoen, G, 2023). The body can revert to a state that can support pregnancy without infringing on characteristics that have already developed. Infertility is not an issue that transgender individuals are at higher risk unless they are transitioning from male to female, as estrogen will reduce sperm production. However, this can also be reverted if testosterone blockers and estrogen were being stopped. Although there has not been a significant amount of findings or research supporting this, it is suggested that transmasculine individuals preserve their eggs before GAHT, as a preventive measure.

The risk of Oncological complications in transfeminine individuals is a bit more complicated as the studies done are not conclusive and don't provide enough data to create a solid stance. It is seen that transfeminine people don't have a higher risk of breast cancer as one might assume based on the amount of estrogen they are intaking, however, rates of breast cancer among them match that of “and remains similar to the low rate of one in every 1,000 for cisgender males” (Heath & Wynne, 2019). Transfemine individuals are also at a lower risk of prostate cancer when compared to that of their cisgender male counterparts.

GAHT On Mental Health

In understanding the effects that GAHT has on a physiological level, both in transfeminine and transmasculine individuals, we must investigate the effects these physical changes can have on the mental well-being of these individuals. Gender-affirming care has a direct influence on the quality of life that transgender people experience. For many throughout

the pandemic not having access to GAHT was extremely hard, “the delay of gender-affirming healthcare was not merely an inconvenience but could be considered "a life or death situation" (P2585, transgender man, 16). Indeed, access to timely gender-affirming care has been associated with reductions in suicide attempts and ideation (Almazan & Keuroghilan, 2021)”

O’Handley, B., & Courtice, E. L. (2022). The lack of access to GAHT and other gender-affirming treatments can cause real-life implications that can be so serious that death can be a result. In the study “*Mental Health Outcomes in Transgender and Nonbinary Youths Receiving Gender-Affirming Care*” we are presented with significant statistics of “60% lower odds of depression and 73% lower odds of suicidality among youth who had initiated PBs or GAHs compared with youth who had not” (Tordoff, Wanta & Collin; et al, 2022). This study discovered that trans youth who had either taken puberty blockers or hormones were found to show a dramatic drop in suicidal ideation. 73% is a very big statistic in terms of children wanting to end their lives. This draws back to the point of just how critical Gender-Affirming care is, especially for youth. Drawing on a more personal note, exploring the journey of individual transgender people can be vital in understanding their experiences. Take a look at Elliot Page (He/Him) who is a prominent Canadian actor who has several academy awards nominations and is also transgender. He broke boundaries when he became the first openly trans man to appear on the cover of Time magazine in 2021, a year after publicly coming out as trans in December 2020. Elliot has spoken about his struggles with gender dysphoria before and most notably in a recent Instagram post where he posted a shirtless picture showcasing his chest which displays his gender-affirming scars (Breast tissue removal surgery). In this Instagram post, Elliot also posted a caption

Dysphoria used to be especially rife in the summer. No layers, just a T-shirt - or layers and oh so sweaty - constantly looking down, readjusting my oversized T. It feels so f'ing good soaking in the sun now, I never thought I could experience this, the joy I feel in my body. I am so grateful for what gender-affirming care has allowed me and I look forward to sharing more of my journey soon. #transjoy

Here we can see just to what extent Gender-Affirming care can impact a person's life. Elliot expresses he never thought it possible to feel the simple joy of being able to embrace the world in a way that truly represents him. He once lived a life as he says in rife, with extreme discomfort, and unfortunately, this is the reality of many trans individuals who are experiencing gender dysphoria. It is important to note the increase in joy and overall happiness that gender-affirming care can have on an individual.

Conclusion

Gender-affirming care is a therapy that is absolutely life-changing and saving. Transgender people from across the country are actively being denied the right to exist in their own identity and expression. Infringing on the natural rights given to every human being is unfair and unjust. There is nothing morally wrong with GAHT treatment and therefore it should not be treated as such. GAHTs are life-saving therapies that have been proven to improve the quality of life of transgender people and significantly reduce suicidal ideation. Now that we understand exactly what GAHT is and how it is used we should be able to better accept and acknowledge the existence of human beings who want to live their life in happiness as we have seen with Elliot Page and millions of others.

Resources

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Elliot Page [@Elliotpage]. (May 10th, 2023) “*Dysphoria used to be especially rife in the summer. No layers, just a T-shirt - or layers, and oh so sweaty*” [Photograph] Instagram.