An Introductory Guide To Transgender Individuals

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Introduction

My aim with this paper is to educate the layperson who may have no idea what "being trans" means. I'm going to discuss gender identity, sex, and sexual orientation; a brief look at trans people in history; gender dysphoria and what it is; some of the possible causes of transsexuality, including brain anatomy; transitioning and what that process entails; some sobering statistics regarding trans people; and finally, some common anti-trans arguments in order to refute them.

> Before we begin, I have few quick disclaimers to go over:
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> 1. This material contains matter-of-fact discussions of genital anatomy, abuse statistics, suicide risk, and surgical procedures. It does not contain nudity or gore. My sources, however, do contain news articles reporting on murder and abuse, as well as nudity and gore in a surgical setting. Follow the links provided in my sources at your own discretion.
> 2. I am deliberately trying to describe the transgender experience as broadly as I can in an effort to cover as much educational ground as possible without sacrificing informational quality. I'm choosing to use the verbiage medical professionals do, not colloquial language used by the LGBTQ community, because colloquialisms are so varied and ever-changing. Different individuals sometimes use different language to describe themselves. Some words, like "transsexual," may also be considered crude or outdated.
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>   Non-binary people are, by definition, transgender, due to having a gender incongruence. Most if not all of the following information, such as medical interventions and dysphoric struggles, applies to non-binary individuals. For the purpose of inclusivity, I'll often be using the shortened term "trans" throughout this material. And for brevity, I won't use the term "non-binary" unless I'm specifically referring to non-binary individuals. Also, in order to be as clear as possible for laypeople, I will be using phrases like "trans and non-binary individuals," despite non-binary people technically being transgender.
> 3. As a final note: Like everyone else, trans and non-binary individuals are unique, as are their journeys. Not every trans or non-binary person will be adequately described by this information, and not all will undertake the medical procedures I will detail later. Their needs and feelings will vary, as will the language they use to describe themselves. If someone describes themselves with words other than what I use here, it's probably best to use those terms out of respect.

Now that I've covered all of that, we can begin.

The Goals Of This Paper

If you're here, you're probably either curious about trans people, confused about feelings you have, or hoping to better understand someone you know who is trans. In any case, I hope you're ready to learn, because there will be a *lot* of information coming your way. However, I've simplified it as best as I can given this is a complicated topic.

My goals here are fourfold:

1. To provide a basic understanding of who trans people are, including common verbiage used in this complicated and sometimes confusing topic.
2. To illuminate a basic scientific validation of trans people, which is backed by peer-reviewed science.
3. To describe with accessible, non-graphic language the common medical interventions a trans person may choose to undergo when changing their sex. I will not provide pictures of these procedures.
4. To present some anti-trans talking points, counter them, and equip you to see how virtually every one I've heard is rooted in either ignorance, bigotry, or misunderstanding of science.

Examining Gender, Sex, And Sexual Orientation

Gender is the societal role a person fulfills as perceived by both themselves and others. It may be male, female or other (Bhargava et al., 2021). *Gender identity* refers to the way a person perceives themselves, and how they fit within the world around them (Hashemi et al., 2018). It could be thought of as the identity of the mind, or the aspect of a person's identity that would be uploaded into a computer were their personality transferred. There would be no body, but their mind would still have a gender.

Sex is also called *biological sex*. When used as a noun like this, "sex" refers to the sexual characteristics of a creature, be they male, female, or both. Though most humans are assigned a biological sex at birth based on their external genitalia, there are cases where this is difficult if not impossible to do because of ambiguity in the child's genitals (Hashemi et al., 2018).

These atypical features are called *disorders of sexual development*, or sometimes *differences in sexual development* (Bhargava et al., 2021). Since the vast majority of medical literature currently refers to them as "disorders of sexual development" (DSD), that is what I will refer to them as, though some persons with DSD may not see their conditions as disorders. People with such atypical features are sometimes called *intersex* individuals (Coleman et al., 2012). They are very real, but relatively rare. Estimates are that between 1:2000 and 1:4500 children are born with ambiguous genitalia (Witchel, 2018). Being intersex is not equivalent to being trans. It is important to avoid assuming that just because someone is intersex, they are also trans.

Sexual orientation refers to a person's preference in sexual partners; it has nothing to do with one's gender identity (Hashemi et al., 2018; American Psychological Association, 2008). Terms regarding sexual orientation tend to be used in different ways by different people. Some people choose not to label themselves at all. While there are varying views on how many sexual orientations there are, four that are arguably the most used are:

- straight (heterosexual)

  This means someone who is exclusively or mostly attracted to people of the opposite sex.

- gay or lesbian (homosexual)

  This means someone who is exclusively or mostly attracted to people of the same sex.

- bisexual

This means someone who is attracted to more than one gender (usually phrased as something like, "attracted to both men and women")

- asexual

  This means someone who is generally not sexually attracted to others. The person may or may not still be interested in romantic relationships.

(American Psychological Association, 2008; Planned Parenthood, n.d.a.; The Trevor Project, 2021)

Again, sometimes people use different labels for themselves, such as pansexual. But these four terms are probably the ones you'll encounter the most often.

Gender, sex, and sexual orientation are not binary, and all are subject to change. This idea may seem absurd at first. But upon closer examination it will become apparent that gender, sex, and sexual orientation are not immutable constructs that fit neatly into black and white boxes. This is an important concept to understand, so let's explore it.

Gender Is Not Immutable

Gender may change over time, and in some individuals it changes throughout life (Katz-Wise, 2020). Later, I'll show how gender seems to be based partly in brain structure. For now, let's just try a thought experiment.

Imagine your own inclinations toward stereotypically feminine or masculine behaviors and mannerisms. What you wear. What you do. How you present yourself in social situations. Now imagine that whether your gender is male or female has no effect on your inclinations. Imagine if exhibiting both feminine and masculine traits, or neither, was more comfortable than adhering mostly to one or the other.

This thought experiment will help you understand the experience of a *non-binary* or *gender nonconforming* individual. These are individuals who do not adhere to the usual feminine or masculine stereotypes expected of their sex (Katz-Wise et al., 2016). It also helps understand how some individuals, who identify as *gender fluid*, experience their own gender. These persons go through different periods of comfort with different expressions of their gender, or different gender identities altogether (Katz-Wise, 2020). That is, over time, their sense of their own gender changes, and the societal role they need in order to be comfortable changes as well.

Regardless of what biology leads to it, gender is ultimately a perception of self we don't have much control over. This perception can change over time. It does not always do so. But when examined from outside of the standard, immutable female-male dichotomy, the existence of both non-binary and gender fluid individuals makes perfect sense.

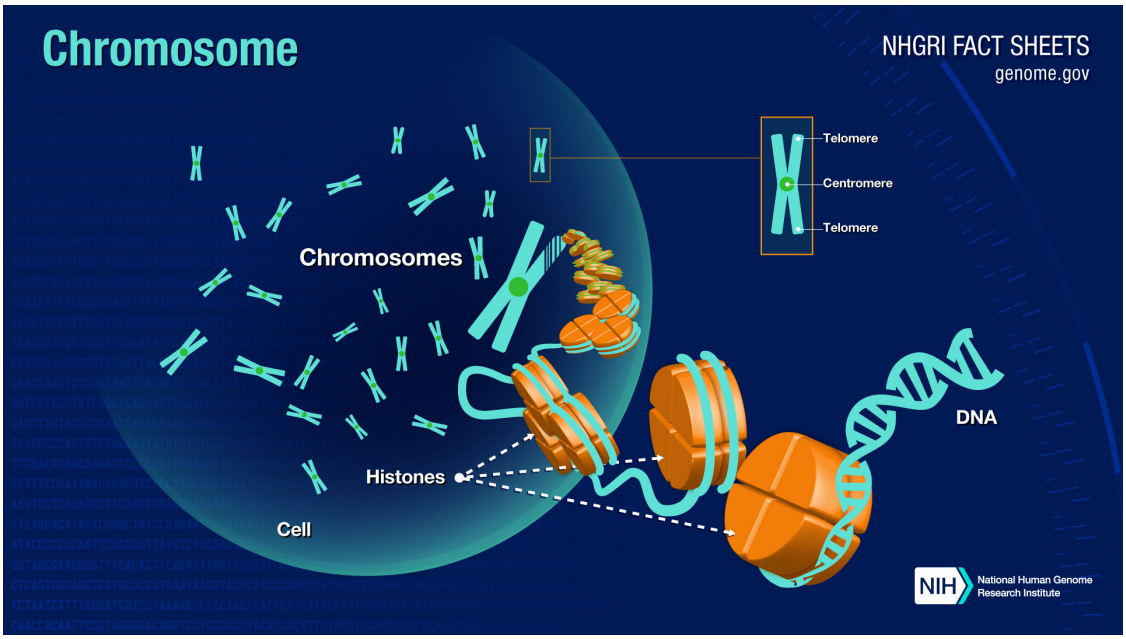
Sex Is Not Immutable

We have also been instilled with the idea that sex is binary, and that it is not changeable. But this is not true. This stems from the idea that sex is ingrained in people genetically, and that there cannot be ambiguity. Some people believe that biological sex can fit into one of two neat little boxes: female or male, penis or vagina.

But sex is not binary. Rather, it is bimodal, with female on one side of the graph and male on the other, and variances in between. Everyone has a sex and therefore falls somewhere on the graph. But whether someone is female or male, and where exactly the point is that separates female from male (if there even is one particular point), isn't always clear. Biology is complicated, and attempts by human beings to put strict labels on everything we find isn't always easy or practical.

As stated before, some individuals are born with ailments called *disorders of sexual development*, or DSD. People with DSD have internal or external genitalia that do not fit the norm (Witchel, 2018). These individuals are sometimes called "intersex," because their disorder results in them having genitals with mixed characteristics. Their genital anatomy falls somewhere between female and male but not quite in line with either (Kwon et al., 2021). In other words, their sex designation is on the graph like everyone else, but not on either the left or right hand side like most people. They're somewhere in the middle, along the spectrum of possible human variation.

In some instances, DSD can also affect the chromosomes of an individual. In case you aren't familiar with what chromosomes are, I'm going to read a few excerpts from the National Human Genome Research Institute to explain. This content is very important to understand, so if it is a bit much to take in, I encourage you to go back over it.



Chromosomes are thread-like structures located inside the nucleus of animal and plant cells. Each chromosome is made of protein and a single molecule of deoxyribonucleic acid (DNA). Passed from parents to offspring, DNA contains the specific instructions that make each type of living creature unique.

...

For an organism to grow and function properly, cells must constantly divide to produce new cells to replace old, worn-out cells. During cell division, it is essential that DNA remains intact and evenly distributed among cells. Chromosomes are a key part of the process that ensures DNA is accurately copied and distributed in the vast majority of cell divisions. Still, mistakes do occur on rare occasions.

Changes in the number or structure of chromosomes in new cells may lead to serious problems. For example, in humans, one type of leukemia and some other cancers are caused by defective chromosomes made up of joined pieces of broken chromosomes.

It is also crucial that reproductive cells, such as eggs and sperm, contain the right number of chromosomes and that those chromosomes have the correct structure. If not, the resulting offspring may fail to develop properly. For example, people with Down syndrome have three copies of chromosome 21, instead of the two copies found in other people.

...

> Chromosomes vary in number and shape among living things. Most bacteria have one or two circular chromosomes. Humans, along with other animals and plants, have linear chromosomes that are arranged in pairs within the nucleus of the cell.
>
> The only human cells that do not contain pairs of chromosomes are reproductive cells, or gametes, which carry just one copy of each chromosome. When two reproductive cells unite, they become a single cell that contains two copies of each chromosome. This cell then divides and its successors divide numerous times, eventually producing a mature individual with a full set of paired chromosomes in virtually all of its cells.
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> ...
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> Humans have 23 pairs of chromosomes, for a total of 46 chromosomes.
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> ...
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> Females have two X chromosomes in their cells, while males have one X and one Y chromosome.
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> Inheriting too many or not enough copies of sex chromosomes can lead to serious problems. For example, females who have extra copies of the X chromosome are usually taller than average and some have mental retardation. Males with more than one X chromosome have Klinefelter syndrome, which is a condition characterized by tall stature and, often, impaired fertility. Another syndrome caused by imbalance in the number of sex chromosomes is Turner syndrome. Women with Turner have one X chromosome only. They are very short, usually do not undergo puberty and some may have kidney or heart problems.
>
> (National Human Genome Research Institute, 2020)

Now, why is this information important?

Disorders of sexual development show that genital characteristics are not immutable. Chromosomes seem to be the final bastion of the argument that sex is immutable. We are coded, it is argued, to be female or male based on our chromosomes. Each of our very cells says we are female or male, regardless of the characteristics of our body itself. So a person with DSD, who has ambiguous genitals but has XY chromosomes, is genetically male and is therefore "truly" a male.

But it turns out this is not necessarily true either.

Swyer syndrome is a genetic condition where a person is born with XY chromosomes but external female genitalia (Genetic and Rare Diseases Information Center, 2020). These individuals are described as having a "female phenotype," i.e. they are by all morphological traits female and have female genitals (Meyer et al., 2019). In most cases, these individuals are raised female, but in some cases they are raised male (Genetic and Rare Diseases Information Center, 2020). There are cases where these genetically male individuals even have small fallopian tubes or a uterus (Bocchini & O'Neill, 2016).

People with Swyer syndrome are not born with ambiguous genitalia (Meyer et al., 2019). This is a situation where someone who looks female, and has a mostly normally-functioning female body except for a dysfunctional reproductive system, is born with stereotypically male chromosomes (Bösze & László, 1979). In fact, Swyer syndrome is often not diagnosed until later in life. This is because of the underdevelopment of secondary sexual characteristics and a lack of menstruation due to non-functional ovaries (Meyer et al., 2019).

While some of these individuals have a male gender identity that matches their stereotypically male chromosomes, most have a *female* gender identity. Regardless, in all cases they have *female genitals*. In fact, if they are given donor eggs, which most cannot naturally produce due to their non-functional ovaries, they can even get pregnant (Genetic and Rare Diseases Information Center, 2020). These individuals are very rare, with estimates that Swyer syndrome affects between 1 in 30,000 and 1 in 80,000 people of the female phenotype (Meyer et al., 2019).

There is a similar condition with the opposite characteristics; phenotypical males born with XX chromosomes (Genetic and Rare Diseases Information Center, 2015). Sometimes the individual's genitals are ambiguous, but most of the time they are not, with around 85% of individuals having normal penis size but small testicles (Délot & Vilain, 2003). Most of these individuals also have a male gender identity, though systematic study of this has not been done (Délot & Vilain, 2003; Genetics Home Reference, n.d.).

So, what we have here is undeniable proof that your chromosomes are not the sole determining factor of a person's sex. There are individuals born with female characteristics and male genetics —a female phenotype and a male karyotype—and vice-versa (Banoth et al., 2017; Délot & Vilain, 2003).

Sexual Orientation Is Not Immutable

It is known that sexual orientation changes or at least forms over time (Rosario et al., 2006). Whether this is truly sexual attitudes themselves changing, or rather *behavior* changing to better match an individual's identity, is not yet known. But the self-identification of sexual orientation is definitely not static in all persons. Some small-scale studies have shown this to be the case. One suggested bisexual young women tend to have more malleable sexual attractions than lesbian women (Diamond, 2000). Another study, of bisexual men, seemed to indicate that they tend to move toward homosexuality over time (Stokes et al., 1997). However, these studies may be outliers.

A different study of bisexual men found that, over about a year, only a minority of the men interviewed moved toward a more homosexual identity (Stokes et al., 1993). The authors also cautioned against using their small sample to generalize for large populations. Furthermore, others studies have shown that the majority of young adults tend to have a stable sexual orientation, including women (Rosario et al., 2006). It should be noted, however, that this means there is still a minority who's sexual orientation is still changing and forming even in adulthood.

What Does It Mean To Be "Trans?"

So, now that we've gone over all of this information about gender, sex, and sexuality, we can ask the question:

> "What does it mean to be trans?"

For the vast majority of people, there is no incongruence between biological sex and gender identity. For example, they were born with stereotypically male genitalia, were assigned the sex of male at birth, and have a male gender identity. They are not bothered by the connection between their biological sex and their gender identity because those match.

However, some people's gender identity is incongruent with the body they have and the sex they were assigned at birth. Some of these people are termed *gender nonconforming*, and may express themselves as something other than a strictly male or female gender identity (Coleman et al., 2012). Sometimes these individuals prefer to use the label *non-binary* to describe their identity. Approximately ten percent of the population with a gender incongruence is non-binary (Claahsen-van der Grinten et al., 2021).

Other people with gender incongruences are called *transgender* or *transsexual*, and their biological sex and gender identity are effectively opposites. People who are not transgender are termed "*cisgender*" (Bhargava et al., 2021; Planned Parenthood, n.d.b).

For some transgender and non-binary people, this mismatch results in a sense of discomfort and/or distress regarding their sense of self and how they are perceived. This phenomenon has been termed *gender dysphoria* (Bhargava et al., 2021; Coleman et al., 2012; Hashemi et al., 2018). Dysphoria is a word meaning, "a state of feeling very unhappy, uneasy, or dissatisfied" (Merriam Webster, n.d.a).

The term "transgender" is perhaps the most commonly used word in the present day to describe individuals with this incongruence (Bhargava et al., 2021). Some individuals instead use the label "transsexual," which is more appropriately a medical term used to describe someone who actively changes their body's sexual characteristics to match their gender identity (American Psychiatric Association, 2013; Coleman et al., 2012).

As a quick note, the word "transgender" is an adjective. It is not a noun (Merriam Webster, n.d.b). Calling people "transgenders" is both grammatically and scientifically incorrect, as well as very rude. It's akin to calling people of color "coloreds," and is arguably a slur.

Transgender or transsexual people are not the same as transvestites, also called cross-dressers. Transvestites are people who dress in opposite-sex clothing for fun or excitement, and are generally comfortable in their gender identity. Cross-dressers can be gay, straight, or anything else—their choice to wear atypical clothing is not tied to their sexual orientation. Some transvestites identify as drag queens, who dress in exaggerated costumes as a type of performance art on stage (Britannica, n.d.).

Estimates from the mid 2010's have approximated the United States' transgender population at roughly one to one point five million individuals (Meerwijk & Sevelius, 2017; Flores et al., 2016). Demographics for the rest of the world are difficult to obtain, and cannot be effectively extrapolated from these numbers (Kritz, 2014).

Trans people face many hurdles in their lives besides their dysphoria. Much like homosexuality in the previous century, transsexuality is largely maligned by cultures throughout the world (Meerwijk & Sevelius, 2017). Simply expressing a transgender identity is effectively criminalized in at least fifteen different countries (Human Dignity Trust, 2021). Other countries actively persecute trans people with prison sentences or worse, and a plethora of barriers to receiving medical care exist, including complete exclusion of transgender health care from insurance plans (Healthcare.gov, n.d.; Morgan, 2017; Zavis, 2017). Harassment of trans people is common, even in public places and in westernized countries like the United States. In the U.S., a 2015 survey found trans people have a 2% chance of being assaulted or physically attacked simply for presenting identification that doesn't match their gender presentation (James et al., 2015).

Still, many of these individuals undergo a journey to make their biological sex and gender identity congruent, so that their dysphoria lessens or disappears. This process usually takes multiple years and may involve hormone therapy, surgical procedures, mental health counseling, and a change in societal role. This process is commonly called a gender "*transition*" (Coleman et al., 2012).

These endeavors are ideally done hand-in-hand with medical professionals. Sadly, this is not always the case due to a myriad of factors including interpersonal, societal, and financial pressures. As a result, some individuals turn to self-medication and even surgical intervention without appropriate guidance from medical professionals, putting their health and safety at risk (Amnesty International, 2019).

Trans People In History

Transsexuality is not a new phenomenon. Historical precedent exists for it, and advances in understanding its causes have lead to questions about whether or not figures in history may have been trans despite the word not being available to them (Janssen, 2021). For example, nearly 2,500 years ago the Greek historian Herodotus wrote of the Scythians, a nomadic people from central Asia. He wrote that some of their men suffered from a supposed "feminine disease," what he called "Scythian melancholy," that caused them to wear women's clothes and do women's work (Janssen, 2021).

Discussion of these writings continued for centuries. As late as the 1700s, scholars debated the cause of this condition, with some attributing it to physical factors and others asserting that it resulted from divine intervention or mental illness. It was even compared to lycanthropy, the supposed state of being part-man and part-wolf (Janssen, 2021).

Charlotte Charke/Charles Brown

From the 1700s onward, individuals who are likely trans, or at least gender nonconforming, become more noticeable. One of these is actress and writer Charlotte Charke, also known as Charles Brown. Born during the early eighteenth century, Charlotte had an estranged relationship with her family (Rowe, 2021). In 1730, at the age of seventeen, she began an acting career under her father, actor-manager and playwright Colley Cibber. That same year, she began a tumultuous marriage with a man named Richard Charke that resulted in both the birth of a daughter and her husband fleeing with a mistress six years later (Rapp, 2002).

Charlotte lived her life tied to theater, either acting or writing plays, and she also wrote multiple works of fiction (Rapp, 2002). Starting in 1731, Charlotte began playing male roles on stage. By the late 1730s she had begun wearing male clothes in her everyday life beyond the stage (Rowe, 2021). When forced out of acting, she continued to wear male clothing in public and sought out traditionally male jobs (Rapp, 2002). Despite two other marriages, including an amicable one that left Charlotte a widow shortly thereafter, Charlotte began living openly as a man and using the name "Charles Brown" by the year 1746 (Rapp, 2002; Rowe, 2021).

At least two women were infatuated with her male persona of Charles, and according to her autobiography one attacked her upon discovering her birth sex (Rowe, 2021). She also met a woman only known as "Mrs. Brown," with whom she had a longstanding relationship that may have been romantic. This relationship started in the late 1740s, and may have quietly lasted until Charlotte's death in poverty in 1760, though this is uncertain (Rapp, 2002).

Chevalier d'Éon

Born in 1728, Charles-Geneviève-Louis-Auguste-André-Timothée d’Éon de Beaumont was a French individual assigned male at birth. In accordance with my primary source regarding d'Éon, I'll use either "he" or "she" before or after a gender shift later in d'Éon's life (McRobbie, 2016).

d'Éon served in the French government and military as an effective instrument, first as a top-secret spy and then as a calvary soldier (McRobbie, 2016). By the age of thirty-five, he received the prestigious Order of Saint Louis and title of “Chevalier," or “Sir" (McRobbie, 2016). However, tensions with his superior officer while on assignment in England led him to seek political exile in London soon after (McRobbie, 2016; The British Museum, n.d.).

d'Éon had to defend himself from the French government's attempts to extradite or capture him. So in 1764 he published a book containing information from his career as a spy in the Russian empress Elizabeth's court (McRobbie, 2016). The book made him a sort of celebrity in Britain while simultaneously making him useful to the French government as a secret agent once again, since

he was now publicly their enemy. He released no more of his secret documents, and continued serving the French king in return for payment, but was barred from returning to his home country (McRobbie, 2016).

Rumors had long abounded that Chevalier d'Éon was actually a woman, and by 1771 they had become so pervasive that London bookmakers had running bets about whether he was a man or a woman (The British Museum, n.d.; McRobbie, 2016). d'Éon did not publicly address these rumors and prodding questions for years. In 1772, a French government agent sent to determine d'Éon's identity interviewed d'Éon, and d'Éon told him she was female; the French government recognized her as such from then on (McRobbie, 2016). From 1777, d'Éon publicly presented as female permanently (The British Museum, n.d.).

She was eventually allowed to return to France after changes in the government. In 1777 she returned to her homeland, legally recognized as a woman thanks to acceptance of her story that she was born female but raised male by her domineering father (McRobbie, 2016). She was even introduced at the king's court in full female regalia as Mademoiselle la Chevaliere d'Eon. However, the rigid gender roles of the time kept her from serving in the military as she wished. She was eventually forced into retirement in her family estate, and moved back to england in 1785 (McRobbie, 2016).

The French Revolution began in 1789, ending d'Éon's pension from the French government. She made money for a few years as a performing swordswoman, and multiple prints were made of her fencing matches as she retained her minor celebrity status (The British Museum, n.d.). She died in poverty in 1810.

If you are interested in more information on d'Éon's adventurous life, the YouTube channel Biographics has a twenty-three minute video with much more detail:

https://www.youtube.com/watch?v=CLVa3j2kfOc

James Barry

Born in Ireland in 1789, the year the French Revolution began, James Barry was a surgeon and military man (Flood, 2019). He studied medicine at the University of Edinburgh from 1809 to 1812 (University of Edinburgh, 2018). His military career saw him travel around the world, including to South Africa, and he was one of the first people to perform a cesarean section there (Foster, 2017).

Barry had a noticeably squeaky voice and a fiery temper. He did not take insults of these traits lightly, and his irritable nature would often lead him to duel those who slighted him. On one occasion the doctor, whose job usually involved saving lives, killed a dueling opponent with a pistol shot to the lung (University of Edinburgh, 2018).

Though he was not always pleasant to be around, Barry was good at his job. By 1859, at the age of seventy, Barry had achieved the rank of medical inspector for the British Army and had served in Canada, the Island of St. Helena, South Africa, and Trinidad and Tobago (Foster, 2017; University of Edinburgh, 2018). In 1865, he died of dysentery while in London.

It was only after his death that James Barry was revealed to have female biological sex, and to bear the signs of childbirth at a younger age (Flood, 2019; Foster, 2017; University of Edinburgh, 2018). Despite serving in the British military for forty years, and traveling around the world, seemingly no one but his mentor Francisco Miranda knew that Barry was actually born Margaret Ann Bulkley, and had been using the name of his deceased uncle that he had once lived with (Foster, 2017). Miranda, a Venezuelan general who had helped Barry get into medical school, had died the year Barry graduated, ending Barry's plan of practicing medicine as a woman in

Venezuela. As a result, he adopted the identity of James Barry permanently (Foster, 2017; University of Edinburgh, 2018).

So, was James Barry a trans man? No one is quite sure. As recently as 2019 there was controversy over the pronouns used to refer to Barry in a novel featuring him. The novel announcement's usage of female pronouns was criticized given Barry's seeming masculine gender identity (Flood, 2019).

Gender is complicated. Its nuances make identifying the gender identity of ambiguously gendered historical figures difficult. This is especially true if they don't detail their own feelings. Barry himself doesn't. If a lack of evidence is at play, assigning a definitive identity to these figures is likely inappropriate.

This is highlighted by biographer Jeremy Dronfield, who wrote a book about Barry. He said,

> In my biography, I used male pronouns for Barry. He was, at least outwardly, a man. But whether Barry qualifies as transgender in modern terms is complicated. When Margaret became James, it wasn't primarily because she wanted to be a man. She wanted to live the kind of life which in 1809 was impossible for a woman. Once the persona had served its purpose, Margaret intended to discard it. Circumstances prevented that. There's evidence that Barry missed being a woman. But we also know that he relished being a man, his behaviour exceeding what was necessary for disguise. However, the claim made online that Barry left a will asking to be remembered as a man is false. He left no statement of identity.
>
> If Margaret had been born in 1989 instead of 1789, free to be a surgeon and soldier, would she have chosen to become a man? On balance, I don't think so, but Margaret might have identified as non-binary. I have no argument with seeing James Barry as a transgender icon, or Margaret as a feminist role model. I do take issue with those who insist on recognising one and erasing the other.
>
> (Flood, 2019)

Other Historical Individuals

There are other individuals who may have been trans or non-binary. As Jeremy Dronfield suggested, however, it is difficult if not dishonest to definitively assign some of them a specifically trans identity unless exact detail of their minds and gender identity are known. Among these are:

- Roman emperor Elagabalus. Elagabalus displayed extremely decadent sexual behavior during his short stint as emperor while a teenager. Supposedly, he is also said to have regularly dressed as a woman in public, visited brothels to prostitute himself, lauded in being referred to as a woman, and asked for what we would call sex reassignment surgery (Franco, 2020; Varner, 2008).
- Charley Parkhurst, a biological woman who lived her life as a man. She lived during the mid 1800s and was the first biological woman to vote in California, some 40 years before the passage of the 19th Amendment allowed suffrage to women throughout the country (Britannica Kids, n.d.).
- Dora Richter, a transgender German woman who was possibly the first to receive sex reassignment surgery (Ballard, 2021).
- Lili Elbe, a transgender Danish woman and painter, who was also possibly one of the first women to recieve sex reassignment surgery (Worthen, 2015).
- Christine Jorgensen, a transgender woman and soldier in World War Two. She underwent sex reassignment surgery and became a national icon for the transgender journey (The National WWII Museum, 2020). An interview from later in her life can be found here:

https://www.youtube.com/watch?v=lDlGUeF1Bg0

Unfortunately, trans or gender-nonconforming people have been maligned as undesirable members of society throughout most of history. Discussion of what English society considered "effeminate men" was remorselessly cruel, with this passage from the 1700s being an example:

> [they are] so far degenerated from all Masculine Deportment or Manly exercises that they rather fancy themselves Women, imitating all the little Vanities that Custom has reconcil'd to the Female sex, affecting to speak walk, tattle, curtsy, cry, scold, & mimick all manner of Effeminacy. (Ward, n.d. [c. 1709?]: 28) [sic]
>
> (Janssen, 2021, p. 273)

This resistance to accept trans people continues even today. Despite advances in science helping us understand trans people better, discrimination and persecution both in law and among the general population continues (Family Equality Council, 2017; Katz-Wise et al., 2016; Morgan, 2017; Zavis, 2017). Rejection of trans people by their own family members is not uncommon, and can have serious consequences on their physical and mental well-being (Katz-Wise et al., 2016).

Examining Possible Causes Of Transsexuality

In an effort to better understand trans people, we should shift our focus to the possible and probable causes of transsexuality. Keep in mind that "transsexuality" is used to describe the state of being trans. It is *not* a sexual orientation, like asexuality or bisexuality.

The need to transition one's sex is brought about by *gender dysphoria*. As stated before, gender dysphoria is characterized by a mismatch between someone's biological sex and their gender identity (Coleman et al., 2012; Hashemi et al., 2018; World Health Organization, 2021). Not every trans person suffers from dysphoria, but it is common (American Psychiatric Association, 2013).

The exact cause or causes of gender dysphoria are not entirely clear. However, scientific study of trans individuals has made great progress in recent decades, leading to multiple hypotheses about what the source of a trans identity could be.

I want to point out that progress in this area is still ongoing, and is incomplete. We do not know exactly how gender identity is formed yet, nor do we fully understand how sexual orientation comes about (Bhargava et al., 2021). Still, we have evidence that biological, environmental, and social variables all factor into forming gender identity.

To illustrate this point with exact language, I want to present a somewhat lengthy passage from one of my sources. Then I will expand upon some of the research done with easier to understand summaries of what has been discovered in this area.

> Although gender is strongly influenced by environmental and cultural forces, it is unknown if the choice to function in society in male, female, or other role(s) is also affected by biological factors. A general issue is that the association of sex, gender, or sexual orientation with specific brain structures, or with other biological variables, does not establish whether the biological variables are causes or consequences or noncausal correlates of the behavioral characteristics or function of the individuals studied. Three areas of biological difference have been studied fairly extensively: neuroanatomy, genetics, and hormones. Studies have reported differences in the hypothalamic INAH3 nucleus in men vs women and in homosexual vs heterosexual men. Although initially controversial, others have confirmed sex differences in INAH3 numbers, not in size or densities, whereas no evidence for sexual dimorphism of any other INAH structures are reported. Studies in people with gender dysphoria found that the phenotypes of specific brain structures, such as the bed nucleus of

> the stria terminalis, of transgender women and transgender men differ from cisgender men and women, with partial, but incomplete sex reversal of sexually dimorphic structures.
>
> ...
>
> Genetics may play a role in gender identity: monozygotic twins have 39% concordance for gender dysphoria. Attempts to identify specific genes governing gender identity have been plagued by small numbers of subjects and low statistical significance; no specific gene has been reproducibly identified. However, such studies have suggested associations with genes encoding steroidogenic enzymes and sex steroid receptors, and it is generally agreed that androgens play an important but not determinative role.
>
> ...
>
> The biological underpinnings of sexual orientation and gender identity are apparently related but are not the same. Thus, there is ample but incomplete evidence for biological substrates—neuroanatomic, genetic, and hormonal—for gender orientation, making this an important area of ongoing research.
>
> (Bhargava et al., 2021, p. 227)

That final last paragraph, and especially the final sentence, is important. Basically, there is strong evidence that biological factors influence gender identity, including brain structure, genetics, and hormones. However, we still don't understand exactly how all of these factors play off of one another, or what effects they each have. So there's more work to do, but the idea that gender identity is a simple choice on the part of a person is false.

With that understanding, let's dive into a few of the studies that have been done to better understand what was talked about in the preceding quote.

A study done in 2018 examined the white and grey brain matter of children and adolescents diagnosed with gender dysphoria. Using MRI, the participants' brains were imaged while they were exposed to a pheromone-like steroid which produces differing brain activity in males than in females. MRI showed that the participants with gender dysphoria consistently showed brain activity more in line with their experienced gender identity than with their biological sex. The study noted that this supported the hypothesis of "sex-atypical brain differentiation in these individuals" (Bakker, 2018).

But this was not the first study to find a link between brain structure and transsexuality. As far back as 1995, a team of researchers was studying the brains of male-to-female trans individuals. They found that these individuals had female structure in an area of the brain important for sexual behavior despite being genetically male (Zhou et al., 1995).

Yet another study of the brain using MRI found similar results. In 2009, researchers studied two dozen adult male-to-female trans people, using thirty cisgender males and thirty cisgender females as controls. Once again, MRI imaging showed the brains of the trans individuals were more stereotypically female than male, despite them being born biologically male. The researchers also noted that none of the trans participants in the study had been treated with cross-sex hormones, ruling out the possibility that this brain structure differentiation was due to transition-related healthcare. The study's authors reported this as yet more evidence that brain structure plays a role in gender identity (Luders et al., 2009).

In 2011, a similar study was done, this time of eighteen female-to-male trans individuals. Once again, they had not been treated with cross-sex hormones as part of a sex transition. And once again, their brain structure was more similar to males—with whom they shared gender identity—than females, with whom they shared biological sex (Rametti et al., 2011).

Other studies have discovered similar results. The brains of trans individuals have multiple structures that are more similar to their experienced gender identity than their biological sex. In other words, it is looking increasingly likely that both female-to-male and male-to-female trans people literally have hybrid brains, with features more akin to what would be expected of the opposite sex, which can contribute to their dysphoria (Garcia-Falgueras & Swaab, 2008; Kruijver et al., 2000).

Investigation into genetic factors has yielded new information as well. One study of one hundred-twelve pairs of twins, wherein at least one twin had transitioned, was done in 2013. It was undertaken to see if there were any trends among the twins which could be traced to genetic factors, and used surveys to help determine this. Twins from around the world responded.

The study built on previous twins research and also found similar results: monozygotic twins, i.e. twins born from one egg, were much more likely to both be trans compared to twins from different eggs (Diamond, 2013). The study also showed that being trans was more likely to be present in both twins when they were born male, as opposed to being born female (Diamond, 2013).

Furthermore, the study pointed out that other research has already shown transsexualism was much more likely among siblings than among the general population. This previous work strongly suggests a biological basis for transsexualism, though the author advises to not discount the rearing environment of trans individuals (Diamond, 2013).

Finally, at least one genetics study has shown a probable link between a specific estrogen receptor gene and male-to-female transsexuality (Fernández et al., 2014).

It's clear that having a gender incongruence is not something trans individuals are imagining. At a minimum it has some basis in their brain structure, and research continues to try to find its source. Like so many other medical conditions, gender incongruence is not something trans people choose—it's something they are born with. Dysphoria doesn't affect all trans individuals to the same degree. But it's very real, and it's not something they can wish away.

The Science Of Transitioning

We've established that transsexuality is rooted in biology, though it is likely influenced by social and cultural factors—that much cannot be discounted. We are, after all, a social species, and gender is a complicated thing.

It's important to note that we do not help someone because they are "suffering from transsexuality." Rather, we help people who are suffering from dysphoria, that feeling of something being inherently wrong with their identity, that is due to a *gender incongruence* (World Health Organization, 2021). So how is this done?

Perhaps the single best source to answer this question is the WPATH Standards of Care. WPATH is an acronym for the World Professional Association for Transgender Health. The 7th and most recent version of their Standards of Care were published in 2012, and includes an opening statement on the purpose of the document. It is pertinent here, so I shall relay it verbatim:

> Purpose and Use of the Standards of Care
>
> The World Professional Association for Transgender Health (WPATH) is an international, multidisciplinary, professional association whose mission is to promote evidence-based care, education, research, advocacy, public policy, and respect in transsexual and transgender health. The vision of WPATH is a world wherein transsexual, transgender, and gender-nonconforming people benefit from access to evidence-based health care, social services, justice, and equality.

> One of the main functions of WPATH is to promote the highest standards of health care for individuals through the articulation of Standards of Care (SOC) for the Health of Transsexual, Transgender, and Gender Nonconforming People. The SOC are based on the best available science and expert professional consensus. Most of the research and experience in this field comes from a North American and Western European perspective; thus, adaptations of the SOC to other parts of the world are necessary. Suggestions for ways of thinking about cultural relativity and cultural competence are included in this version of the SOC.
>
> The overall goal of the SOC is to provide clinical guidance for health professionals to assist transsexual, transgender, and gender-nonconforming people with safe and effective pathways to achieving lasting personal comfort with their gendered selves, in order to maximize their overall health, psychological well-being, and self-fulfillment. This assistance may include primary care, gynecologic and urologic care, reproductive options, voice and communication therapy, mental health services (e.g., assessment, counseling, psychotherapy), and hormonal and surgical treatments. While this is primarily a document for health professionals, the SOC may also be used by individuals, their families, and social institutions to understand how they can assist with promoting optimal health for members of this diverse population.
>
> WPATH recognizes that health is dependent upon not only good clinical care but also social and political climates that provide and ensure social tolerance, equality, and the full rights of citizenship. Health is promoted through public policies and legal reforms that promote tolerance and equity for gender and sexual diversity and that eliminate prejudice, discrimination, and stigma. WPATH is committed to advocacy for these changes in public policies and legal reforms.
>
> (Coleman et al., 2012, pp. 1-2).

It is also important to point out that the Standards of Care, which I shall from here on out usually call the SOC, are professionally-written and reviewed guidelines, not rules. Every trans individual, and their journey, is different. The SOC notes this, as well as the fact that a lack of resources or a patient's unique anatomy may require divergence from its flexible guidelines. At the same time, the SOC calls for such breaks from it to be documented and thoroughly explained to the patient to meet informed consent criteria. This is for patient care, legal protection, and to help gather data to help further improve trans health care as a whole (Coleman et al., 2012).

The criteria for a diagnosis of gender dysphoria are detailed in the DSM-5, the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders. The DSM is published by the American Psychiatric Association and is widely used in the United States as a guidebook for diagnosing and treating mental disorders. While the manual receives criticism for some of its content, it is in general a helpful and medically sound guidebook for handling mental disorders.

I should also note that the DSM-5 was published in 2013. In 2019 the World Health Organization deliberately recategorized gender incongruence as a sexual health issue, not a mental disorder, because they realized that being trans is not a mental illness (Lewis, 2019; World Health Organization, 2021).

Diagnosis is different for children and adults. My paraphrase of the DSM-5's criteria for children is as follows:

> Gender Dysphoria in Children
> 302.6 (F64.2)
> **A.** Gender incongruence of at least 6 months' duration, manifested by at least six of the following
> (one of which must be Criterion A1):

1. A strong desire to be of the other gender or an insistence that one is the other gender (or some alternative gender different from one's assigned gender).
2. A strong preference for cross-gender clothing.
3. A strong preference for cross-gender roles in make-believe play or fantasy play.
4. A strong preference for the toys, games, or activities stereotypically used or engaged in by the other gender.
5. A strong preference for playmates of the other gender.
6. A strong rejection of toys, games, and activities typically associated with the child's assigned gender.
7. A strong dislike of one's sexual anatomy.
8. A strong desire for the primary and/or secondary sex characteristics that match one's experienced gender.

B. The condition is associated with clinically significant distress or impairment in social, school, or other important areas of functioning.

(American Psychiatric Association, 2013, p. 452)

The criteria are slightly different for adolescents and adults. Again, I will paraphrase them here:

Gender Dysphoria in Adolescents and Adults
302.85 (F64.1)
A. Gender incongruence, of at least 6 months' duration, as manifested by at least two of the following:

1. A marked incongruence between one's gender and one's primary and/or secondary sex characteristics (or anticipated secondary sex characteristics).
2. A strong desire to be rid of one's primary and/or secondary sex characteristics, or prevent one's secondary sex characteristics from developing.
3. A strong desire for the primary and/or secondary sex characteristics of the other gender.
4. A strong desire to be of the other gender (or some alternative gender different from one's assigned gender).
5. A strong desire to be treated as the other gender (or some alternative gender dif ferent from one's assigned gender).
6. A strong conviction that one has the typical feelings and reactions of the other gen der (or some alternative gender different from one's assigned gender).

B. The condition is associated with clinically significant distress or impairment in social, occupational or other important areas of functioning.

American Psychiatric Association, 2013, pp. 452-453)

As the SOC notes, estimates are that between seventy-three and eighty-eight percent of prepubescent children with dysphoria will grow out of it by adulthood, usually by the time puberty is in full force (Coleman et al., 2012). Gender and sexuality are complicated, especially in children who may have difficulty sorting through their feelings and expressing them. The SOC recognizes this by pointing out that social transitions of gender role by children are controversial among medical professionals, and evidence of their long-term outcomes is lacking (Coleman et al., 2012).

Furthermore, the SOC does not endorse medical interventions in children. According to the SOC guidelines, adolescents are eligible for some reversible hormone treatment, including puberty blockers. Only those who are legally able to make medical decisions for themselves are eligible for sex reassignment surgery, which affects the genitals (Coleman et al., 2012). Other studies have corroborated this stance by concluding that pre-pubescent children should not be treated with hormone therapy, and adolescents should be given puberty blocking treatment rather than cross-sex hormones until they are near adulthood (Hembree et al., 2009).

This directly contradicts the narrative being pushed by some that medical professionals are trying to "force" children into transitioning, or that children are being irreversibly altered at young ages. In fact, as we'll see shortly, the requirements for undergoing surgical interventions are far from lenient.

With all of that in our back pocket, lets take a look at the treatment options for gender dysphoria. The WPATH Standards of Care lists a handful of primary categories which I will paraphrase here for brevity:

- Changes in gender expression and role
- Hormone therapy to feminize or masculinize the body
- Surgery to change primary and/or secondary sex characteristics

  (primary sex characteristics are the genitals and reproductive system; secondary sex characteristics are non-reproductive, sexually dimorphic traits such as breasts, musculature, and body hair or fat distribution differences [Richards & Hawley, 2011])
- Psychotherapy and peer support resources
- Voice and communication therapy
- Hair removal
- Breast binding and genital tucking
- Changes in name and gender marker on identity documents.

(Coleman et al., 2012, pp. 9-10).

Before I go over these various treatments, I want to point out that someone being trans does not mean asking them about their body is appropriate. For better or worse, being trans is often quite noticeable. This is especially the case for people who knew the trans individual before they began their transition, and for individuals who transition later in life. However, this does not mean that a trans person's body is open for discussion. Unfortunately, trans individuals being asked which genitals they have, whether or not they will get surgery, and other invasive questions, is relatively common.

These types of questions are just as inappropriate to ask a trans individual as they would be to ask anyone else. Unless your particular relationship with a trans person allows for such openness, asking them these types of questions is not just rude and invasive. It is also demeaning and objectifying, because it implies you think the intricacies of their body are open for discussion simply because they are changing their body as a whole. Consider both for the trans person as an individual, and the boundaries of the relationship you have with them, before asking questions about their transition.

With that said, let's go over each of these categories briefly. Hopefully this will form a basic understanding of what steps a trans individual may undertake to address their dysphoria, depending on its acuteness. Remember, not every trans person will do each of these, or any of them. Dysphoria comes in many levels of severity. Some people are made mildly uncomfortable by it, while others are driven suicidal by their overwhelming discomfort.

Changes In Gender Expression And Role

This might involve living in a different gender role more consistent with one's gender identity (Coleman et al., 2012). It could also include coming out to friends and family, changing how one dresses and acts, and changing the name and pronouns one uses (Planned Parenthood, n.d.c).

Hormone Therapy To Feminize Or Masculinize The Body

Hormone therapy is a powerful way to change the body so that it more aligns with one's gender identity. It is sometimes called hormone replacement therapy, or HRT. HRT has been in use since the 1930s, when synthetic estrogen was used to ease menopausal symptoms of women (Brett & Chong, 2001). HRT has been refined in the decades since then, and includes both administering sex hormones and blocking their effects. It now has other medical applications, including the treatment of prostate cancer and treating gender dysphoria (National Cancer Institute, 2021). It has been shown to have a strong positive effect on the mental health of trans people (Colizzi et al., 2014).

HRT has drastically different effects in female-to-male individuals than it does for male-to-female individuals. While the name of the treatment is the same, the substances used are very different. Basically, in the context of trans people, the objective of HRT is to block the person's usual sex hormones and substitute hormones of the opposite sex (Hashemi et al., 2018). This results in a sort of second puberty (Deutsch, 2020).

The Standards of Care require a referral from a specifically qualified mental health professional in order to undergo hormone replacement therapy (Coleman et al., 2012). I won't go over the qualifications here, as they are quite detailed and long (Coleman et al., 2012). Suffice it to say, the idea sometimes pushed by anti-trans voices that anyone—especially children—can walk in to a doctor's office and begin changing their sex, is a complete lie. In fact, there are even a list of criteria for the HRT referral letter itself (Coleman et al., 2012).

Female-To-Male HRT

For female-to-male individuals, HRT has a wide variety of effects. Not all of them are physical, and not everyone undergoing the treatment experiences them. Most of these changes happen within the first year, and include but are not limited to:

- beard growth
- voice deepening
- fat redistribution from the hips to the abdomen, and on the face
- muscle and strength growth
- body hair thickening
- changes in activities enjoyed
- narrowing of emotions felt
- increase in sexual desire
- changes in sex acts that are enjoyable
- minor physical changes to sex organs, especially during arousal
- generally lighter menstrual periods
- reduced ability to become pregnant

  (Deutsch, 2020; Hashemi et al., 2018; Hembree et al., 2009)

There are a variety of risks associated with female-to-male hormone replacement therapy. These include but are not limited to:

- onset of male pattern baldness or thinning of head hair
- onset or increase of acne and oily skin, sometimes severe
- a temporary "roller coaster of emotions" while going through a second puberty
- possible sterility
- increased risk of stroke and heart attack
- possible worsening of anxiety or depression due to hormonal changes
- hypertension
- a worsening of other conditions, such as migraines or autoimmune disorders, is possible; research has not definitively proven a connection

  (Coleman et al., 2012; Deutsch, 2020)

Testosterone is available in many forms, including patches, rub-on gels, injections, under-the-skin pellets, and oral tablets (Deutsch, 2020). There is no evidence that any one form of administration is particularly more effective in changing the body than any other (Coleman et al., 2012).

Male-To-Female HRT

HRT for male-to-female individuals is similar in that it introduces both physical and emotional changes. Again, most of these changes will begin to happen within the first year, and include but are not limited to:

- mild decrease in amount and speed of body hair growth
- fat redistribution to the breasts and hips
- decreased muscle mass and strength
- decreased sexual desire and testicular size
- decreased spontaneous erections and erections during arousal
- breast growth
- softening of the skin
- decreased skin oiliness

  (Coleman et al., 2012; Hashemi et al., 2018; Hembree et al., 2009; Planned Parenthood, n.d.c)

Risks associated with male-to-female HRT include but are not limited to:

- deep vein thrombosis
- hypertriglyceridemia
- severe liver dysfunction
- migraines
- coronary artery disease
- possible sterility
- risk of breast cancer; research is inconclusive, but this risk is not currently shown to be higher than in cisgender women

  (Coleman et al., 2012; Hashemi et al., 2018; Hembree et al., 2009)

It is clear that hormone replacement therapy is both a powerful way to treat dysphoria, and a potent treatment that should be considered carefully before being undertaken. It could be argued that only sex reassignment surgery has more ability to change the body. But HRT does carry risks.

However, keeping in mind that any medical procedure carries risk and that informed consent of the patient is required for HRT, medical consensus is that HRT is an effective and ethical way to treat dysphoria (Bouman et al., 2016; Coleman et al., 2012; Colizzi et al., 2014; Murad et al., 2010; Newfield et al., 2006; What We Know Project, 2018).

Controversy Regarding Puberty Blocking Treatment of Children and Adolescents

Puberty blockers are a relatively new treatment related to hormones. They are also controversial, so I want to talk about them here. They are properly known as gonadotropin-releasing hormone analogues. Puberty blockers are a divisive treatment option for pubescent individuals with gender dysphoria, and were pioneered by Dutch clinicians in the Netherlands (Giovanardi, 2017). They involve subcutaneous treatment via injection or small implants. These hormone analogues then affect the pituitary gland near the base of the brain, suppressing puberty for the duration of their use (Turban et al., 2020). The pubertal suppression is completely reversible (Giovanardi, 2017; Turban et al., 2020). Dutch law generally allows children as young as twelve to receive this treatment (Vrouenraets et al., 2015).

The treatment is controversial primarily because studies of long-term effects on patients who undergo it are lacking. It is known that puberty blockers can lead to reduced bone density and fertility issues (Giovanardi, 2017; Mayo Clinic, 2021). There is currently only limited data on what effects puberty blockers may have on brain development (Giovanardi, 2017). Many medical professionals oppose this treatment because of these or other concerns, such as the earlier-mentioned fact that around seventy-five percent of children with dysphoria will grow out of it by adulthood (Coleman et al., 2012).

Conversely, however, gender dysphoria that is still displaying once puberty begins rarely dissipates on its own (Hembree, 2011). In addition, multiple studies have shown improved psychological functioning and a decrease in dysphoria when puberty blockers are given to appropriate candidates, and an increase in dysphoria when they are withheld (Giovanardi, 2017).

The lack of consensus among clinicians is driven by a lack of empirical, long-term data on outcomes of patients administered this treatment. As a result, different groups of medical professionals think that the same guidelines, such as the WPATH Standards of Care, are either too lenient or too restrictive (Vrouenraets et al., 2015). There is a mire of differing ethical and moral opinions about puberty blockers, with even those tentatively supporting the treatment encouraging more research be done and caution be exercised (Kreukels & Cohen-Kettenis, 2011; Vrouenraets et al., 2015). The dialogue is further complicated by questions of whether pubescent individuals can properly give informed consent, and if depriving them of a normal puberty experience does more harm than good (Giovanardi, 2017). At the same time, some medical professionals argue that, given the suicide risk associated with gender dysphoria, refusing treatment such as puberty blockers may itself be unethical (de Vries & Cohen-Kettenis, 2012; Giordano, 2013).

Obviously, this is a very complicated topic. There is a reason the professionals who spend their lives working in this field are still debating how to handle it. The use of puberty blockers is currently up to the best judgment of individual practitioners, though an increasing number of practitioners has become accepting of puberty-blocking treatment (Vrouenraets et al., 2015). The ethical and moral implications of giving or denying the treatment are beyond the scope of this paper, and I will leave further discussion of them alone for now.

Surgery To Change Primary And/Or Secondary Sex Characteristics

Surgical interventions are available to help trans individuals address their dysphoria, but in general these procedures have strict eligibility requirements. There are various such procedures. One of the most dangerous, and potentially most affirming, is reassignment surgery of the genitals (Coleman et al., 2012). Sometimes this surgery is called "gender reassignment surgery," or "gender affirmation surgery" (Pariser & Kim, 2019). Since it is referred to in most medical literature I am citing as "sex reassignment surgery," that is what I'll be calling it here (Coleman et al., 2012; Hembree et al., 2009).

Some of the most common procedures available are:

- female-to-male sex reassignment surgery (SRS)
- male-to-female sex reassignment surgery (SRS)
- hysterectomy (removal of female reproductive organs)
- mastectomy (breast removal)
- facial feminization surgery (FFS)
- augmentation mammoplasty (breast augmentation)
- fat removal or redistribution to change body shape

  (Coleman et al., 2012; Hashemi et al., 2018; Planned Parenthood, n.d.c; Sutcliffe et al., 2008)

I will not be detailing each of these procedures, but I will provide a few brief notes about them and discuss some of the controversy about performing them. I will also not be showing pictures both because of the nature of the material, and because I feel it is unnecessary. If you are an adult and wish to expose yourself to graphic surgical imagery, you may do so.

Female-to-male sex reasignment surgery (SRS) involves phalloplasty to create a penis (Planned Parenthood, n.d.c). It usually takes multiple surgeries to complete (American Society of Plastic Surgeons, n.d.b) and involves both restructuring of present tissue and installing prosthetics similar to those used for erectile dysfunction in some cisgender men (Neuville et al., 2019).

Male-to-female sex reasignment surgery (SRS) is part of a suite of procedures called feminizing genitoplasty (Cleveland Clinic, 2016). These procedures include disassembly of the penis and the creation of a vagina, clitoris, and vulva (Pariser & Kim, 2019). Obviously, this is an extremely invasive procedure with a myriad of risks. However, as the techniques used to perform male-to-female SRS have improved, outcomes have improved as well, both in terms of aesthetics and safety. The procedure carries relatively low risk when performed by an experienced surgeon (Pariser & Kim, 2019).

Surgeons following the WPATH Standards of Care gate SRS procedures behind multiple psychological checks and referrals, as well as twelve months of experience living as the desired sex, to ensure they are not taken lightly (American Society of Plastic Surgeons, n.d.a; Coleman et al., 2012). In other words, a trans individual needs to present as their desired sex and adjust their life to the reality of what surgery will bring them *before* they are allowed to undergo the procedure.

A hysterectomy is removal of the female reproductive organs, i.e. the ovaries and uterus (Planned Parenthood, n.d.c). It will prevent a trans man from having periods or any possibility of getting pregnant.

Mastectomy is removal of breast tissue. For trans men, this may also include contouring of the chest to create a masculine shape once the breast tissue is gone. It may also include moving the nipples and areola to ensure they are in the proper locations (American Society of Plastic Surgeons, n.d.c).

Facial feminization surgery (FFS), as the name implies, makes a person's face more feminine in appearance. For some trans individuals, FFS is more important than sex reassignment (Dubov & Fraenkel, 2018). "FFS" is an umbrella term for a myriad of different procedures. A trans individual may partake in some, all, or none of them depending on their particular needs, resources, and the extent of their dysphoria, as well as their comfort with the amount of invasiveness some procedures require. These include changes to or restructuring of the: jaw, cheeks, lips, hairline, chin, and nose (University of California San Fransisco, n.d.). Some of these procedures include very invasive restructuring or removal of bone to reshape the face (Dubov & Fraenkel, 2018; University of California San Fransisco, n.d.). However, studies have shown that FFS is a safe and effective way to reduce dysphoria, even if multiple of the most invasive procedures are done simultaneously (Ainsworth & Spiegel, 2010; Chaya et al., 2021; Gupta et al., 2019).

Augmentation mammoplasty (breast augmentation) is essentially done the same way for trans individuals as it would be for cisgender women, and involves the moving of fat from one area of the body to the breasts, or implantation of artificial breast prosthetics (Coleman et al., 2012). This is usually done to make the breasts bigger, though it may also be performed because the breasts are of noticeably different sizes (Imborek, 2019). The WPATH Standards of Care recommend letting hormone replacement therapy take its full effect before undergoing breast augmentation, which takes at least twelve months (Coleman et al., 2012).

Fat removal or redistribution, via liposuction or lipofilling can be done to change body shape. The SOC points out that while these procedures are usually considered aesthetic, they may be medically necessary in individuals with severe dysphoria (Coleman et al., 2012).

Again, there are other surgical procedures available, but these are probably the most widely performed.

Controversy Regarding Surgery On Healthy Individuals

There is some controversy in the medical community regarding performing sex reassignment surgery on trans individuals. This is due to hesitancy on the part of medical professionals about altering anatomically functioning body structures in the light of their oath to do no harm to their patients (Coleman et al., 2012). This hesitancy is understandable and should be respected and discussed instead of reprimanded (Coleman et al., 2012). However, physicians with reservations need to understand that science shows both gender incongruence and gender dysphoria are real.

The overwhelming majority of academic, medical, and scientific bodies support this consensus. These include but are not limited to:

- the American Psychological Association (American Psychological Association, 2015)
- the World Health Association (World Health Organization Europe, n.d.)
- the Association of American Law Schools (Association of American Law Schools, 2017)
- the University of California (UC Office of the President, 2017)
- the United States federal government (U.S. Department of Labor, n.d.)
- the World Professional Association for Transgender Health (World Professional Association for Transgender Health, n.d.)
- the World Medical Association (World Medical Association, 2015)
- the World Psychiatric Association (World Psychiatric Association, 2017)
- the United Nations Human Rights Council (United Nations Human Rights Office of the High Commissioner, n.d.)

and countless other medical professionals.

The treatments recommended for gender dysphoria, including surgeries such as SRS, have been shown in peer-reviewed studies to be effective in both treating dysphoria and improving the quality of life and mental health of trans patients (Ainsworth & Spiegel, 2010; Kuzon Jr. et al., 2018; Bouman et al., 2016; Coleman et al., 2012; Colizzi et al., 2014; Falcone et al., 2017; Glynn et al., 2016; Johansson et al., 2010; Murad et al., 2010; Newfield et al., 2006; Smith et al., 2005; What We Know Project, 2018).

Furthermore, a systematic review has been done of more than twenty-five years of peer-reviewed literature studying outcomes of transitioning. Ninety-three percent of the literature found that transitioning improved overall well-being (What We Know Project, 2018).

Physicians treating trans individuals must be aware of and accepting of these facts, and competent in administering the treatments trans patients need. Unfortunately, many physicians are lacking knowledge in the area of trans health care. Even doctors with the best intentions may be unknowledgeable, and as this area is relatively new and trans patients are rare, education of physicians sometimes falls upon the patient. This is an unfortunate and unfair reality.

It is vital that the patients themselves are aware of the treatments available to them, and the risks involved with each. This can be accomplished by maintaining open and honest dialogue between the patient and physician, as well as following the appropriate procedures (such as requiring multiple physician referrals) to ensure a potentially life-altering treatment for dysphoria is not rushed into (Coleman et al., 2012).

While surgically altering the functional genital anatomy of a trans person is seen by some as damaging a healthy body, it can in fact help to drastically alleviate gender dysphoria, which can potentially be life-threatening. Mechanisms such as multi-stage psychological assessments, real-life experience periods, and pre- and post-operative counseling are recommended and critical to ensure such life altering treatments are successful. When such recommendations are followed, sex reassignment surgery is overwhelmingly likely to lead to improved sexual quality of life, improved self-esteem, and improved mental health (Castellano et al., 2015; Imbimbo et al., 2009; Johansson et al., 2010; van de Grift et al., 2018).

Psychotherapy And Peer Support Resources

Counseling, therapy, and peer support groups all fall under a broad umbrella of support networks. Counseling and therapy are self-explanatory sources of help for the trans individual, but should be carried out by competent professionals with knowledge of gender issues (Coleman et al., 2012). Indeed, this expertise is critical. Psychotherapy can be absolutely vital to helping a trans person understand their gender incongruence, coping with symptoms that may arise from it, and how to handle life changes and stresses that will happen because of their transition (Coleman et al., 2012).

Trans people are often put in a difficult situation if they choose to come out or transition later in life, especially if they have children or are in a relationship. After all, their lives are not the only thing affected by their choice to transition or not. A transitioning adult may strongly affect on their partner, children, or other loved ones. Even children, or adults who do not surgically modify their bodies, can affect the dynamic and emotions of their families when they take steps to address their dysphoria.

Therapy in a group setting and peer support groups are two ways to help address these difficult circumstances. Sometimes a different therapist is required to meet these needs (Coleman et al., 2012). Particular strain may be put on the partner of a trans person in a relationship. For example, someone transitioning may no longer meet their partner's sexual needs or fit their partner's sexual orientation, sometimes necessitating a separation even if the partner is supportive of the transition itself.

Groups such as PFLAG and the Trans Youth Equality Foundation provide in-person support groups or literature resources to both trans people and their families (PFLAG, n.d.; Trans Youth Equality Foundation, n.d.). Other local groups also exist to help trans individuals, those questioning their gender identity, or sometimes just the curious and respectful, in a non-professional setting.

Voice And Communication Therapy

Some trans people undergo therapy or training to more effectively emulate speech and mannerisms more commonly attributed to their gender identity. Male-to-female trans individuals may also have feminizing surgery of their voice, though this procedure's efficacy is varied (Coleman et al., 2012). Surgery can be done to deepen the voice of female-to-male individuals, but since female-to-male HRT usually deepens the voice, this surgery is rare (Coleman et al., 2012).

Hair Removal

Hair removal is of great importance for many trans women, especially with regard to their faces. Though in general body hair will thin or lighten in response to male-to-female hormone replacement therapy, facial hair will not go away completely without electrolysis or laser hair removal (Coleman et al., 2012). Hair removal is also of paramount importance for all SRS procedures due to complications hair growth can cause in tissues post-op (Pariser & Kim, 2019).

Breast Binding And Genital Tucking

Some individuals may feel the need to reduce the apparent size of their breasts through restrictive clothing or similar artificial means. This practice is sometimes called breast binding, chest binding, or simply, "binding." It can be very mentally healthy for a trans man, but somewhat dangerous for their health if done improperly (Moffa, 2019).

Binders can be bought commercially, or other garments can be re-purposed for binding. Some trans men even use items like tape to keep their breasts flat, though this is considered by some to be unsafe (Moffa, 2019). Self-reports of complications from binding are very high, highlighting a need for medical guidance to ensure maximum safety when using the practice (Peitzmeier et al., 2016).

Tucking is a similar practice used by many trans women. Rather than reducing the visibility of breasts, tucking involves hiding the male sex organs. Befitting its name, tucking involves maneuvering the genitals so that they lay flat toward the trans woman's perineal area, and keeping them in place with tape or clothing (Deutsch, 2016).

As with chest binding, tucking can be very affirming. Depending on how severe a trans individual's dysphoria is, tight-fitting garments and swim wear may be unusable without tucking. However, it also carries health risks, including infection, inflammation of the prostate, and testicular pain (Zevin, 2016).

Changes In Name And Gender Marker On Identity Documents.

Legal documents are a very important part of transitioning. Due to the United States being my birth country and worldwide regulations being impossible to document fully, I will only focus on the United States' rules about legal documents.

Trans individuals face a variety of challenges with regard to legal documentation necessary for modern society, including birth certificates, drivers licensees, passports, and their legal names. As of the time of writing, Tennessee is the only state that denies trans individuals the right to update their birth certificate sex marker if they transition. However, this was not the case even recently.

Both Kansas and Ohio denied this right as well until 2019 and 2020, respectively (Smyth, 2020; The Associated Press, 2019).

The exact requirements for changing birth certificates vary by state, with some requiring SRS and some requiring court orders (Colorado Department of Public Health & Environment, n.d.; dexas Department of State Health Services, 2020; "Section 31-10-23," 2013; Virginia's Legislative Information System, n.d.).

Many citizens live in states other than where they were born. They must follow local laws for their drivers license but the laws of their birth state regarding their birth certificate. This creates a tangled web of confusing paperwork with different procedures to follow for different trans individuals. This causes confusion and frustration among many members of the community, not to mention denials of their requested documentation changes. Some of these denials have been successfully challenged in court on grounds of essentially bigotry on the part of the denying judge (Chan, 2009).

Name changes are similar, with requirements varying by state. Some require fees up to hundreds of dollars, or even require putting multi-week notices in public newspapers that force trans individuals to be outed to their communities (Transgender Law Center, 2013). Not only is this potentially humiliating for the trans individual, but it also opens them up to potential targeted harassment and assault. The majority of trans people who attempt to get their names changed succeed. But barriers to entry, from lack of money to fear of being outed, means many trans people do not even try for some time (James et al., 2015).

Regardless, it is arguably worse for trans individuals to leave their documents unchanged in the first place, putting them in a terrible lose-lose situation. A 2015 survey of almost 28,000 transgender individuals found that,

> As a result of showing an ID with a name or gender that did not match their gender presentation, 25% of people were verbally harassed, 16% were denied services or benefits, 9% were asked to leave a location or establishment, and 2% were assaulted or attacked.
>
> (James et al., 2015, p. 82)

As a result of these various factors, only about a fifth of trans people have been able to update all of their identity documentation (National Center for Transgender Equality, n.d.).

Trans People Today: Statistics

Before I move on to addressing some common anti-trans arguments, I'm going to present some statistics. Some are good, but first I need to show the harsh reality of being a trans person, especially one who tries to embrace their identity and risks sharing their feelings with others. Having actual numbers that accurately represent the trauma, pain, and suffering that the trans community goes through puts into perspective just how marginalized this community is, and why educating about them and giving them empathy, help, and understanding are vital.

Sobering Statistics

Statistics Found In The United States:

- Since the Human Rights Campaign began recording them in 2013, murders of trans people in the United States have been steadily increasing. Five out of six of these murder victims are trans women, and eighty percent of murdered trans women are black (Sosin, 2020).

- The overwhelming majority of murdered trans people are trans women, and the vast majority of those victims are people of color (Adams et al., 2018).

- Misgendering or lack of identification of trans murder victims is common, both by the media and by the police, with activists being the only reason these individuals are properly identified (Adams et al., 2018).
- 1 in 3 trans youths has been a victim of sexual violence in the past year (Trevor Project, 2019).
- 1 in 3 trans youths has attempted suicide in the past year (Trevor Project, 2019).
- 1 in 4 trans youths have felt unsafe going to school in the past month (Trevor Project, 2019).
- More than half of trans adolescents have self-harmed non-fatally in the past year (Thoma et al., 2019).
- A trans individual's chance of suicide attempts is doubled if they are rejected by their birth family (10.5%), or if their religious community rejects them or they are forced into conversion "therapy" (13.1%) (Herman et al., 2019).
- Compared to cisgender individuals, trans youth have two to three times the risk of depression, anxiety disorder, suicidal ideation, suicide attempts, and self-harming (Reisner et al., 2015).
- 17 anti-LGBTQ laws were enacted in 2021, more than in 2018, 2019, and 2020 combined (Ronan, 2021).
- Over 250 anti-LGBTQ bills, many targeting trans individuals and trans youth, were proposed to state legislatures in 2021, including:

  At least 35 bills denying trans youth gender-affirming care

  At least 15 bills requiring trans individuals to use the locker room or restroom of their birth sex

  (Ronan, 2021)
- In 2018, 55% of trans people who sought insurance coverage for surgical procedures were denied. 25% of trans people who sought insurance coverage for hormone replacement therapy were denied (Dubov & Fraenkel, 2018).

Statistics Found In The European Union:

- 1 in 4 trans individuals reports being discriminated against at work (FRA – European Union Agency for Fundamental Rights [FRA – EUAFR], 2014).
- 1 in 8 trans individuals experienced or was threatened with violence in the past year (FRA – EUAFR, 2014).
- Actual sexual and physical assaults are more likely than threats of assaults (FRA – EUAFR, 2014).
- Public places are where the most serious hate-related attacks take place (FRA – EUAFR, 2014).
- 1 in 3 trans individuals do not report violent attacks against them to the police because they are afraid of homophobia or transphobia from the police as well (FRA – EUAFR, 2014).
- Harassers of trans people are overwhelmingly groups of men the trans individuals don't know (FRA – EUAFR, 2014).

Quality of Life Outcomes

There are, however, encouraging statistics about trans individuals as well, and I'd like to share them with you. Not all is doom and gloom, especially with regard to treatment outcomes when dysphoric individuals are able to receive proper care.

- After 12 months, hormone replacement therapy significantly cuts the occurrence of anxiety (by 33%) and depression (by 19%) in trans individuals (Colizzi et al., 2014)

- HRT lowers depression, anxiety, and stress in female-to-male trans individuals, while increasing quality of life (Colton-Meier et al., 2011). In male-to-female individuals it also increases quality of sex life (Manieri et al., 2014).
- SRS has been shown in multiple studies to improve the lives of those trans individuals who desire it (Castellano et al., 2015; Johansson et al., 2010)
- In one extensive survey of 81 trans women and 51 trans men, surgical interventions had an extraordinarily high satisfaction rate, and improved quality of life. With the exception of one individual, feminizing surgery satisfaction rate was 96-100%, and masculinizing surgery satisfaction rate was 94-100% (van de Grift et al., 2018). None of the respondents expressed the wish to detransition, despite a few having some disappointment about surgical outcomes (van de Grift et al., 2018).
- Regret about transitioning is very low. A study of 295 trans people found regret rates of 1-1.5%, and the author attributes this regret to poor diagnosis and surgical outcomes, and failure to abide by the twelve months of living experience recommended in the Standards of Care prior to surgery (Pfafflin, 2008).
- A study of 218 trans individuals who had SRS from 1972 to 1992 found the rate of regret to be slightly higher, at 3.8%. Its conclusion was that sex reassignment outcomes have improved in the past few decades, and that the best indicators of regretting SRS were lack of familial and social support (Landén et al., 2007).
- Yet another study of 163 trans women was done in 2007. It found that 75% of respondents had a better sex life, 78% were satisfied by their genitals' new appearance, and almost none had regrets regarding SRS (Imbimbo et al., 2009).
- In addition, a 2014 study of 119 trans women who had undergone SRS found that 82.4% of them could achieve orgasm, with 20.9% of them achieving orgasm "easily" (Hess, 2014). Clearly, the idea that trans people must sacrifice their sexuality in order to transition is not true.

Finally, people who are not viewed by others as transgender, and those who do not disclose to others that they are transgender, reported lower prevalence of suicidal thoughts and suicide attempts. For instance, 6.3% of those who reported that others can never tell they are transgender attempted suicide in the past year compared to 12.2% of those who reported that others can always tell they are transgender (Herman et al., 2019).

It seems that trans individuals who can either remove their gender incongruence or minimize its effects, while also not being harassed and abused by society, tend to be happier. Who knew?

Countering Anti-Trans Arguments

To finish up this paper, I'm going to analyze a few anti-trans arguments. I hope that, given the information you've already been shown, I will be able to effectively explain why these arguments don't hold up.

TransgenderTrend.com

First off, I'd like to note a quick way to spot that a person or organization probably doesn't know what they are talking about. This is by scrutinizing what language they use. Take, for example, this screenshot from the website of anti-trans activist group "Transgender Trend."

Lies From The "About" Page

Note that they call being trans "the diagnosis of transgender." This is as inane as saying, "There is no reliable scientific basis for the diagnosis of rheumatoid." Because, as I've articulated before, the word "transgender" is not a noun (Merriam Webster, n.d.b). While usage of language like this does not and should not immediately disqualify someone from public discourse, it definitely applies a dampener on the likelihood they know what they're talking about.

Next we have multiple lies in this single paragraph. First, there is indeed scientific basis for the diagnosis of *gender dysphoria*, which I've gone over. This includes the extensive criteria within the DSM-5 and the WPATH Standards of Care, which are in turn based on peer-reviewed scientific literature (American Psychiatric Association, 2013; Coleman et al., 2012). I've provided extensive research about quality-of-life outcomes after transitioning, and the side effects of hormone replacement therapy are understood and well-known (Coleman et al., 2012; Deutsch, 2020; Hashemi et al., 2018; Hembree et al., 2009). Arguably the most experimental gender-affirming health care is puberty blocking treatment, and as I've said, even that is not an "experiment which has no precedent." Investigation of puberty blockers is ongoing, and though full understanding of side effects are unknown, medical professionals are trending toward acceptance of the treatment since it has been shown to have positive outcomes (Kreukels & Cohen-Kettenis, 2011; Vrouenraets et al., 2015).

Now, I don't want to be accused of selectively curating Transgender Trend's content, so here is a large chunk of the rest of the web page. I won't go over it in detail.

However, I do want to address three things here, which I have highlighted and numbered below.

What I'll address here are:

1. Rapid Onset Gender Dysphoria (ROGD)
2. The safety of females in public toilets and changing rooms
3. Worrying about normal childhood behaviors

Fairness in sports is a very complicated topic and is beyond the scope of this paper.

Rapid Onset Gender Dysphoria

Rapid onset gender dysphoria, or ROGD, is a hypothetical and informal diagnosis to account for what is described as sudden, post-puberty desire to transition. As explained in a highly controversial scholarly article:

> Parents describe that the onset of gender dysphoria seemed to occur in the context of belonging to a peer group where one, multiple, or even all of the friends have become gender dysphoric and transgender-identified during the same timeframe. Parents also report that their children exhibited an increase in social media/internet use prior to disclosure of a transgender identity. Recently, clinicians have reported that post-puberty presentations of gender dysphoria in natal females that appear to be rapid in onset is a phenomenon that they are seeing more and more in their clinic.
>
> (Littman, 2018, p. 1)

This same article went on to popularize the idea, giving it its name. However, the article was highly scrutinized (Wadman, 2018). I looked through the article and noted two seemingly fatal flaws.

- The study, which took the form of a survey, only sampled the parents of individuals supposedly showing ROGD, not the individuals themselves. Thus, the actual feelings,

experiences, and mental states of the individuals in question were fed to the study through the bias of their parents.
- The study's questionnaire was knowingly disseminated to four online outlets. Three of the four are forthright about having highly critical or hostile attitudes toward transgender health care.

Nevertheless, the study brought up noteworthy concerns, such as groups of three to five friends announcing transgender identities within short time frames, and the adoption of trans identities seeming to be maladaptive coping mechanisms rather than something with a foundation in an individual's childhood (Littman, 2018). The paper was scrutinized and more research was deemed necessary to refute or verify the existence of "rapid onset gender dysphoria."

In response, a follow up study of one hundred seventy-three trans youths was done, using data from 2017 to 2019. The study specifically sought to test the hypothesis of the Littman study from 2018:

> Based on the published hypothesis, we would expect more recent gender knowledge to be associated with selfreported mental health measures, mental health and neurodevelopmental disability diagnoses, behaviors consistent with maladaptive coping (eg, self-harm), support from online and/or transgender friends but not parents, and lesser gender dysphoria. We aim to test these hypotheses.
>
> (Bauer et al., 2021, p. 224)

The study used both surveys of the youths themselves and clinical records to categorize the youths' gender knowledge as either less than or more than two years old, since the term "rapid onset" was not defined (Bauer et al., 2021). The youths were assessed for anxiety, depression, eating disorders, and neurodevelopmental disorders such as ADHD, in addition to gender dysphoria symptoms. Furthermore, their self-harm, substance use, and suicidal behaviors were self-reported, and their connections to online transgender-related resources were assessed (Bauer et al., 2021).

When combined with the fact that the progenitor of rapid onset gender dysphoria was a biased paper, this study effectively demolished the idea that RODG is a real phenomenon. I'll let an excerpt of its text speak for itself:

> We did not find support within a clinical population for a new etiologic phenomenon of rapid onset gender dysphoria during adolescence. Among adolescents under age 16 years seen in specialized gender clinics, associations between more recent gender knowledge and factors hypothesized to be involved in rapid onset gender dysphoria were either not statistically significant, or were in the opposite direction to what would be hypothesized. This putative phenomenon was posited based on survey data from a convenience sample of parents recruited from websites, and may represent the perceptions or experiences of those parents, rather than of adolescents, particularly those who may enter into clinical care.
>
> (Bauer et al., 2021, pp. 225-226)

The Safety Of Females In Public

The writers of Transgender Trend are "also concerned about legislation which places transgender rights above the right to safety for girls and young women in public toilets and changing rooms..."

This is a common talking point among those critical of trans rights, and among those simply concerned that changing gender norms in society will result in negative consequences. This is a valid concern, but it is easily dissuaded when one is wiling to look at data and think through the situation reasonably.

The vast majority of bathrooms are not open spaces. They are filled with individual stalls. There are not groups of people dressing and undressing there. Instead, there are individual people who need to relieve themselves in a public place, who are probably trying to get in and out of said place as quickly as possible.

For places where there is undressing, such as locker rooms, why is trans people being present a problem? Is a transgender woman not allowed into a women's locker room simply because she might not have had SRS, and has a penis? If young children are present, they should be with their parents anyway. If older adolescents are present, say teenagers, they should be mature enough to be able to handle seeing naked people in a non-sexual context. Or else they shouldn't be allowed by their parents into the locker room. The onus is not on trans people to make everyone else comfortable.

Furthermore, if we accept this argument that trans people are not supposed to go to certain spaces because of their genitals, where are intersex people supposed to go? Picture a man, with a mostly masculine voice, and a male gender identity. His genitals include a partially-functioning penis, with a malformed scrotum and an opening to his vagina. He also has gynecomastia, or enlargement of breast tissue in males.

Which locker room is he supposed to go to? If he goes into the men's room, will he be ostracized because he has a vagina under his penis? Will he be proclaimed a predator if he's instead forced into the women's room, where he doesn't want to go because he's male? Is he to be denied access to the locker rooms at all through no fault of his own, simply because his body makes others feel uncomfortable while he's changing clothes in a place *specifically designed for such activity*? Or is it the responsibility of others to be understanding that the world does not revolve around them, and sometimes other bodies will make them uncomfortable?

Laws that would prevent discrimination against trans people are needed. Trans people are regularly subject to harassment and abuse in restroom facilities, especially when they are more easily noticed as trans. According to a 2013 report of almost one hundred people,

> Eighteen percent of respondents have been denied access to a gender-segregated public restroom, while 68 percent have experienced some sort of verbal harassment and 9 percent have experienced some form of physical assault when accessing or using gender-segregated public restrooms.
>
> ...
>
> Twenty-five percent of all Black or African American respondents were denied access to gendered public bathrooms, which is slightly higher than the share of white respondents (18 percent) and respondents of two or more races (18 percent)
>
> (Herman, 2013, pp. 71-72)

It should be noted that these disturbing numbers are in-line with the aforementioned statistics regarding the murder of black trans women. In the study, black trans women were denied access more than other groups, but were underrepresented in the study participants (Herman, 2013).

In addition, multiple survey respondents reported better experiences with discrimination and harassment in Washington, DC, where the survey took place, than their previous places of residence (Herman, 2013). So for some individuals, these staggeringly awful odds of being denied the simple right to use the restroom are somehow an improvement.

Enshrining protections for trans people into law can help reduce these egregious violations of human rights. The primary argument against them is a fallacious one. It says that enabling trans people to use bathrooms in accordance with their gender identity will enable child predators and rapists easier access to victims. Women and children, the argument says, will be put in danger.

Seemingly no thought is put toward trans men, or trans children. The problem is, as is usually the case, trans women who will be in close proximity to women and children.

The argument is fallacious for a couple of reasons.

1. First, it insinuates that trans people are all trans women. Trans people are as varied as any other group. There are trans women, trans men, non-binary people, people who have had surgery, people who haven't, trans children, and more. There are also intersex people, who may or may not identify as trans.

   For some reason, these arguments and the laws stemming from them seem to be obsessed with pulling on heartstrings to protect the supposedly helpless women and children visiting bathrooms every day. I haven't seen a single one arguing that *trans men* must visit *women's* bathrooms because they were *born female*. No, the focus is always on "protecting the women and children" from terrible danger. It's an appeal to emotion fallacy.

2. Child predators and rapists will abuse people regardless of whether or not there are laws protecting trans people. In addition, *laws protecting trans people will not somehow make child predation or rape legal. They are wrong and will continue to be both illegal and immoral*.

   Criminals, by definition, break the law. Abusers who break the law in bathrooms will not be magically vindicated because a law exists that allows trans people to use the restroom without being mistreated. They will be prosecuted as the law allows. In addition, there is no metaphysical rule stating that same-sex abusers cannot exist. The world is not a safe place in general. I submit that a parent who is scared of their child being mistreated in a public bathroom should not let them go in alone in the first place, regardless of who else is present. They should also teach their children how to be safe in public spaces, including bathrooms.

3. The data simply does not back this argument up. Trans people have been known to be hunted and murdered simply for using the restroom (Fitzsimons, 2020). Meanwhile, a survey of fifteen experts in twelve states--including police department officials--found no evidence that bathroom-related predatory crime increased because of laws protecting trans people there. The study was done in 2014, and while it was not a peer-reviewed scientific study, it goes a long way to debunking this myth.

   At the time of the study, four of the states examined had anti-discrimination laws more than ten years old (Maza & Brinker, 2014). Despite this, no one they interviewed reported that the laws had led to sexually predatory issues:

(graphic: Maza, 2014)

To top this off, a peer-reviewed study was released in 2019. The report looked at areas of Massachusetts where gender identity laws had and had not been passed, and assessed criminal incident reports in public restrooms, locker rooms, and dressing rooms (Hasenbush et al., 2019).

The authors state:

> This study finds that the passage of such laws is not related to the number or frequency of criminal incidents in these spaces. Additionally, the study finds that reports of privacy and safety violations in public restrooms, locker rooms, and changing rooms are exceedingly rare. This study provides evidence that fears of increased safety and privacy violations as a result of nondiscrimination laws are not empirically grounded.
>
> (Hasenbush et al., 2019, Abstract)

How Trans Men Expose Bathroom Bills As Nonsense

There are two common tropes among people disparaging trans folks. Quite often, they tend to:

1. Advertise trans people who have noticeably sexually dimorphic traits that correspond with their birth sex. A classic example is showing pictures of trans women who transitioned later

in life, who lived many years in a masculinized body. These women often have stereotypically male features that can be difficult to change if they choose to transition physically.
2. Almost completely ignore the fact that female-to-male trans individuals (trans men) exist, especially with regard to bathroom legislation.

It is likely that people advocating for discrimination against trans individuals do this on purpose. It makes their audiences think all trans people look this way and are noticeable. It also builds up the disparaging "men in dresses" stereotype. But not all trans people are noticeable as trans, even intimately, and trans men ruin one of the most common anti-trans arguments.

Transitioning early in life tends to make it easier for a trans person to acquire the look of their desired sex. In addition, many trans people are virtually unnoticeable as trans in their day-to-day lives.

For example, here are a few pictures of cisgender women and trans women:

And here are some cisgender men and trans men:

Can you tell who is cisgender and who is trans?

The vast majority of trans people simply want to be comfortable in their own bodies. Aforementioned research has already shown that there is no link between trans bathroom access and an increase in predatory behavior in those spaces. But on top of that, the argument *for* strict bathroom access is almost universally based around "protecting women and children" by preventing supposed men from entering female spaces. These laws all seem to force trans women to use the bathroom of their sex assigned at birth, i.e. the men's room.

But what about trans men? Some of the men in the previously-shown picture are trans. A law requiring people to use the restroom of their sex assigned at birth would require those men to use the *women's* restroom. So the same law supposedly protecting the women and children by "keeping men out of the women's restroom" is *literally forcing a man from the previous picture into the women's restroom*.

Obviously, either ignorance or hypocrisy has to be at play here. In either case, these "bathroom laws" are not helpful, have been demonstrated to do no good, and do not serve any purpose other than to dehumanize trans people and put them in danger of harassment and further mental health issues.

Trans people are no more a danger to cisgender people than anyone else. Neither are laws protecting their right to use the bathroom. Yet trans people are regularly associated, without basis, with child molestation. It is an extension of the moral panic around gay marriage, and is akin to the bizarre arguments made by some that legalizing gay marriage in the United States would lead to legalized marriage to animals (Media Matters, 2005; Walzer, 2009).

In my opinion, the panic around the right of trans individuals to simply use the restroom is not just rooted in ignorance. In some people, it is likely also rooted in sexual discomfort, particularly about trans women. These people may be disgusted by the idea that they will find a trans woman who has a penis attractive. Furthermore, astounding ignorance is required to propose bills requiring trans men to use female restrooms while claiming such bills will "keep men out of

women's spaces." So I doubt many of these people are even informed enough to know that trans men exist at all.

Worrying About Normal Childhood Behaviors

As I've already shown, peer-reviewed literature has found that approximately seventy-five percent of children with dysphoria will grow out of it by adulthood, with some figures showing even higher percentages (Coleman et al., 2012; Hembree, 2011). Furthermore, exploring and developing a gender identity is a normal process for children (Claahsen-van der Grinten et al., 2021).

Rather than being frightened of questions regarding gender and sexuality, parents need to exercise their best judgment and talk with their children about their feelings. Gender is not binary, but gender dysphoria is not common. Only about one-half to two percent of individuals are believed to be trans, depending on the study (Claahsen-van der Grinten et al., 2021; Meerwijk & Sevelius, 2017).

Finally, there is also a difference between *having a gender incongruence* and *being gender dysphoric*. This is a problem of education. Parents need to be educated, and fear about gender, gender roles, and them possibly changing needs to be addressed.

Closing Thoughts

I have presented a tremendous amount of information in this paper. You may have known some of it already, but I hope I have helped you learn something. If you didn't understand or support trans people and their rights to gender-affirming care before, I hope you do now. At the least, perhaps I have challenged your views and caused you to think about things differently.

For what little it may be worth, I want to encourage trans people who may be reading. There is a lot of resistance to your basic rights right now, and even your attempts to simply be yourselves. This is especially the case in the United States, where an extraordinary amount of bigoted religious politicians are trying to criminalize simply being trans in public. That isn't fair, and it isn't right. But there is hope.

Until just over a hundred years ago, women couldn't vote. Until about fifty years ago, discrimination based on race and religion was legal, and marriage between same-sex partners wasn't legal on a federal level until 2015. This is a fight that shouldn't have to happen, and the abuse and discrimination your community endures is abhorrent. But when taken in the context of history, civil rights have made leaps and bounds in the last century.

Hopefully, with your advocates and community members continuing to be brave, and since science is firmly on your side, yet another leap in your favor will be made soon.

As our current president said in a statement,

> Transgender people are some of the bravest Americans I know. But no person should have to be brave just to live in safety and dignity.
>
> (Biden, 2021)

Let's strive to make safety and dignity two things transgender people can take for granted soon.

In solidarity,

Willow the Wendigo

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