What the Science on Gender-Affirming Care for Transgender Kids Really Shows

Laws that ban gender-affirming treatment ignore the wealth of research demonstrating its benefits for trans people's health

By Heather Boerner on May 12, 2022

For the first 40 years of their life, Texas resident Kelly Fleming spent a portion of most years in a deep depression. As an adult, Fleming—who uses they/them pronouns and who asked to use a pseudonym to protect their safety—would shave their face in the shower with the lights off so neither they nor their wife would have to confront the reality of their body.

What Fleming was experiencing, although they did not know it at the time, was gender dysphoria: the acute and chronic distress of living in a body that does not reflect one's gender and the desire to have bodily characteristics of that gender. While in therapy, Fleming discovered research linking access to gender-affirming hormone therapy with reduced depression in transgender people. They started a very low dose of estradiol, and the depression episodes became shorter, less frequent and less intense. Now they look at their body with joy.

So when Fleming sees what authorities in Texas, Alabama, Florida and other states are doing to bar transgender teens and children from receiving gender-affirming medical care, it infuriates them. And they are worried for their children, ages 12 and 14, both of whom are agender—a identity on the transgender spectrum that is neither masculine nor feminine.

"I'm just so excited to see them being able to present themselves in a way that makes them happy," Fleming says. "They are living their best life regardless of what others think, and that's a privilege that I did not get to have as a younger person."

Laws Based on "Completely Wrong" Information

Currently more than a dozen state legislatures or administrations are considering—or have already passed—laws banning health care for transgender young people. On April 20 the Florida Department of Health issued guidance to withhold such gender-affirming care. This includes social gender transitioning—acknowledging that a young person is trans, using their correct pronouns and name, and supporting their desire to live publicly as the gender of their experience rather than their sex assigned at birth. This comes nearly two months after Texas Governor Greg Abbott issued an order for the Texas Department of Family and Protective Services to investigate for child abuse parents who allow their transgender preteens and teenagers to receive medical care. Alabama recently passed SB 184, which would make it a felony to provide gender-affirming medical care to transgender minors. In Alabama, a "minor" is defined as anyone 19 or younger.

If such laws go ahead, 58,200 teens in the U.S. could lose access to or never receive gender-affirming care, according to the Williams Institute at the University of California, Los Angeles. A decade of research shows such treatment reduces depression, suicidality and other devastating consequences of trans preteens and teens being forced to undergo puberty in the sex they were assigned at birth).

The bills are based on "information that's completely wrong," says Michelle Forcier, a pediatrician and

professor of pediatrics at Brown University. Forcier literally helped write the book on how to provide evidence-based gender care to young people. She is also an assistant dean of admissions at the Warren Alpert Medical School of Brown University. Those laws "are absolutely, absolutely incorrect" about the science of gender-affirming care for young people, she says. "[Inaccurate information] is there to create drama. It's there to make people take a side."

The truth is that data from more than a dozen studies of more than 30,000 transgender and gender-diverse young people consistently show that access to gender-affirming care is associated with better mental health outcomes—and that lack of access to such care is associated with higher rates of suicidality, depression and self-harming behavior. (Gender diversity refers to the extent to which a person's gendered behaviors, appearance and identities are culturally incongruent with the sex they were assigned at birth. Gender-diverse people can identify along the transgender spectrum, but not all do.) Major medical organizations, including the American Academy of Pediatrics (AAP), the American Academy of Child and Adolescent Psychiatry, the Endocrine Society, the American Medical Association, the American Psychological Association and the American Psychiatric Association, have published policy statements and guidelines on how to provide age-appropriate gender-affirming care. All of those medical societies find such care to be evidence-based and medically necessary.

AAP and Endocrine Society guidelines call for developmentally appropriate care, and that means no puberty blockers or hormones until young people are already undergoing puberty for their sex assigned at birth. For one thing, "there are no hormonal differences among prepubertal children," says Joshua Safer, executive director of the Mount Sinai Center for Transgender Medicine and Surgery in New York City and co-author of the Endocrine Society's guidelines. Those guidelines provide the option of gonadotropin-releasing hormone analogues (GnRHas), which block the release of sex hormones, once young people are already into the second of five puberty stages—marked by breast budding and pubic hair. These are offered only if a teen is not ready to make decisions about puberty. Access to gender-affirming hormones and potential access to gender-affirming surgery is available at age 16—and then, in the case of transmasculine youth, only mastectomy, also known as top surgery. The Endocrine Society does not recommend genital surgery for minors.

Before puberty, gender-affirming care is about supporting the *process* of gender development rather than directing children through a specific course of gender transition or maintenance of cisgender presentation, says Jason Rafferty, co-author of AAP's policy statement on gender-affirming care and a pediatrician and psychiatrist at Hasbro Children's Hospital in Rhode Island. "The current research suggests that, rather than predicting or preventing who a child might become, it's better to value them for who they are now—even at a young age," Rafferty says.

A Safe Environment to Explore Gender

A 2021 systematic review of 44 peer-reviewed studies found that parent connectedness, measured by a six-question scale asking about such things as how safe young people feel confiding in their guardians or how cared for they feel in the family, is associated with greater resilience among teens and young adults who are transgender or gender-diverse. Rafferty says he sees his role with regard to prepubertal children as offering a safe environment for the child to explore their gender and for parents to ask questions. "The gender-affirming approach is not some railroad of people to hormones and surgery," Safer says. "It is talking and watching and being conservative."

Only once children are older, and if the incongruence between the sex assigned to them at birth and their experienced gender has persisted, does discussion of medical transition occur. First a gender

therapist has to diagnose the young person with gender dysphoria.

After a gender dysphoria diagnosis—and only if earlier conversations suggest that hormones are indicated—guidelines call for discussion of fertility, puberty suppression and hormones. Puberty-suppressing medications have been used for decades for cisgender children who start puberty early, but they are not meant to be used indefinitely. The Endocrine Society guidelines recommend a maximum of two years on GnRHa therapy to allow more time for children to form their gender identity before undergoing puberty for their sex assigned at birth, the effects of which are irreversible.

"[Puberty blockers] are part of the process of 'do no harm,'" Forcier says, referencing a popular phrase that describes the Hippocratic Oath, which many physicians recite a version of before they begin to practice.

Hormone blocker treatment may have side effects. A 2015 longitudinal observational cohort study of 34 transgender young people found that, by the time the participants were 22 years old, trans women experienced a decrease in bone mineral density. A 2020 study of puberty suppression in gender-diverse and transgender young people found that those who started puberty blockers in early puberty had lower bone mineral density *before* the start of treatment than the public at large. This suggests, the authors wrote, that GnRHa use may not be the cause of low bone mineral density for these young people. Instead they found that lack of exercise was a primary factor in low bone-mineral density, especially among transgender girls.

Other side effects of GnRHa therapy include weight gain, hot flashes and mood swings. But studies have found that these side effects—and puberty delay itself—are reversible, Safer says.

Gender-affirming hormone therapy often involves taking an androgen blocker (a chemical that blocks the release of testosterone and other androgenic hormones) and estrogen in transfeminine teens, and testosterone supplementation in transmasculine teens. Such hormones may be associated with some physiological changes for adult transgender people. For instance, transfeminine people taking estrogen see their so-called "good" cholesterol increase. By contrast, transmasculine people taking testosterone see their good cholesterol decrease. Some studies have hinted at effects on bone mineral density, but these are complicated and also depend on personal, family history, exercise, and many other factors in addition to hormones."

And while some critics point to decade-old study and older studies suggesting very few young people persist in transgender identity into late adolescence and adulthood, Forcier says the data are "misleading and not accurate." A recent review detailed methodological problems with some of these studies. New research in 17,151 people who had ever socially transitioned found that 86.9 percent persisted in their gender identity. Of the 2,242 people who reported that they reverted to living as the gender associated with the sex they were assigned at birth, just 15.9 percent said they did so because of internal factors such as questioning their experienced gender but also because of fear, mental health issues and suicide attempts. The rest reported the cause was social, economic and familial stigma and discrimination. A third reported that they ceased living openly as a trans person because doing so was "just too hard for me."

The Harms of Denying Care

Data suggest the effects of denying that care are worse than whatever side effects result from delaying sex-assigned-at-birth puberty. And medical society guidelines conclude that the benefits of gender-affirming care outweigh the risks. Without gender-affirming hormone therapy, cisgender hormones take over, forcing body changes that can be permanent and distressing.

A 2020 study of 300 gender-incongruent young people found that mental distress—including self-harm, suicidal thoughts and depression—increased as the children were made to proceed with puberty according to their assigned sex. By the time 184 older teens (with a median age of 16) reached the stage in which transgender boys began their periods and grew breasts and transgender girls' voice dropped and facial hair began to appear, 46 percent had been diagnosed with depression, 40 percent had self-harmed, 52 percent had considered suicide, and 17 percent had attempted it—rates significantly higher than those of gender-incongruent children who were a median of 13.9 years old or of cisgender kids their own age.

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"Delays in prescribing puberty blockers and hormones may in fact worsen mental health symptoms for trans youth," says Diana Tordoff, an epidemiology graduate student at the University of Washington and co-author of the study.

That effect may be lifelong. A 2022 study of more than 21,000 transgender adults showed that just 41 percent of adults who wanted hormone therapy received it, and just 2.3 percent had access to it in adolescence. When researchers looked at rates of suicidal thinking over the past year in these same adults, they found that access to hormone therapy in early adolescence was associated with a 60 percent reduction in suicidality in the past year and that access in late adolescence was associated with a 50 percent reduction.

For Fleming's kids in Texas, gender-affirming hormones are not currently part of the discussion; not all trans people desire hormones or surgery to feel affirmed in their gender. But Fleming is already looking at jobs in other states to protect their children's access to such care, should they change their mind. "Getting your body closer to the gender [you] identify with—that is what helps the dysphoria," Fleming says. "And not giving people the opportunity to do that, making it harder for them to do that, is what has made the suicide rate among transgender people so high. We just—trans people are just trying to survive."