Do No Harm

Ohio House Bill 68: Testimony of Daniel Weiss, MD

June 2023

Introduction

My name is Dr. Daniel Weiss. I am writing in support of House Bill 68. I am board certified in internal medicine and endocrinology.

I practiced in northern Ohio from 1986 until 2022, providing care for adults and children.

For about a decade (2003–2013), I was the principal physician in northern Ohio offering hormonal treatment for adults with gender dysphoria. I was the "go to" physician listed on the principal LGBTQ website. I provided hormonal care for approximately 100 persons as young as 18. However, I stopped seeing new patients with gender dysphoria when I realized the lack of benefit and the potential harm these treatments caused. I also found that these persons had minimal psychologic evaluation for their psychic distress.

I joined a group practice in Utah in December 2022 where I continue to provide care for adolescents and persons into their 90s. Unlike most pediatricians, my care and follow up of patients does not stop when the person turns 18. I have treated many patients over more than 35 years of practice. I am licensed to practice medicine in both Ohio and Utah. My comments do not reflect the views of my current employer, Intermountain Health. I am a senior fellow with the nonprofit organization called Do No Harm. I base this statement on my experience, my expertise, and a critical review of the scientific literature and publications on this subject.

Many psychologists believe it is essential to explore the factors that might have led to the child's rejection of their natal sex.[1-4] Open, exploratory supportive, psychotherapy can be very beneficial in patients with gender dysphoria and lead to their desistance.[5,6]

However, many clinicians think that children must be simply "affirmed" in their expression of transgender identity. But clinicians who without question agree or "affirm" the child's self-diagnosis will fail to address psychiatric co-morbidities that may underlie the rejection of their sex.

I am concerned about "the one size fits all" protocol of puberty blockers, opposite- sex hormones, followed often by surgery. This "assembly line" of harm has been revealed to occur at gender clinics.[7,8]

No other mental disorders listed in the Diagnostic and Statistical Manual of Mental Disorders (DSM) is treated with medication or surgery with the goal of altering body appearance.

A study was commissioned by the United Kingdom (UK) government to evaluate the care provided at their world-famous Gender Identity Development Service (GIDS). That study revealed that there was overlooking of or "overshadowing" of other psychologic issues by an inappropriate focus on gender.[9] Other healthcare needs were not addressed once any "gender related distress" had been identified.[9]

Gender dysphoria usually resolves without intervention

Eleven studies reveal that approximately 90% of children who are diagnosed with gender dysphoria, if left untreated, will "desist," meaning that their gender dysphoria resolves by puberty or adulthood.[10-12] Desistance is also increasingly observed among teens and young adults who have experienced "rapid onset gender dysphoria"—first manifesting gender dysphoria during or shortly after adolescence.[13] For these youth, various psychosocial factors including pressure from peers and social media strongly influenced their decision to transition with no previous sign of gender dysphoria.[13]

A European study reported on 201 young adults seen on average five years earlier in gender clinics of Netherlands, Germany, and Norway. Fourteen percent of that group had no medical interventions for their gender dysphoria. Nonetheless, those persons exhibited a 67% reduction in their gender dysphoria score.[14] So even in young adults with distress attributed to gender, resolution can occur without medical interventions.

The Endocrine Society clinical practice guideline states that "in most children diagnosed with GD/gender incongruence, it did not persist into adolescence."[15] No test identifies those children or adolescents in whom gender dysphoria will persist.

World Professional Association for Transgender Health (WPATH)

The World Professional Association for Transgender Health (WPATH) began in 1979 as a US-based advocacy group for transgender, mostly male to female, adults. Since then, it has issued guidelines on the management of children and adults with gender dysphoria. These guidelines have been adopted and endorsed by many in the healthcare field.

In all medical fields, clinical practice guidelines vary in quality.

WPATH guidelines fail in most criteria that are required for "trustworthy guidelines." Furthermore, current WPATH guidelines[16,17] advise no lower age limit for hormonal and surgical interventions in children.

WPATH also states that "While marked and sustained gender incongruence should be present, it is not necessary for TGD (transgender and gender diverse) people to experience severe levels of distress regarding their gender identity to access gender-affirming treatments".[16]

WPATH provides guidance for those males who feel they are "nonbinary," i.e., neither male nor female. Those males might simply want their testes removed to become a eunuch. WPATH provides no lower age limit for those children who might "identify" as a eunuch.

History of early medical interventions for gender dysphoria

Researchers in the Netherlands believed that if one could stop puberty before secondary sexual characteristics developed and subsequently administer opposite sex hormones one could most effectively treat gender dysphoria in children. Their so-called "Dutch protocol" was published in 2006.[18] These researchers received funding from a pharmaceutical company selling the puberty blocker triptorelin.[18]

The adolescents in this study had to have a "comprehensive psychologic evaluation with many sessions" and could not have "psychosocial problems interfering with assessment or treatment"[19] and required a "good comprehension of the impact of medical interventions." Therefore, the study subjects were highly selected.[19,20]

Multiple papers detail the many scientific flaws in the Dutch study, including the lack of a comparison group and the substantial loss to follow up of patients.[21-23] The study started with 111 children but only 55 were analyzed at its conclusion.

The principal author of the Dutch studies, a psychiatrist named de Vries, stated recently that "the main finding remains the resolution of gender dysphoria."[24] They measured dysphoria with the 12 item Utrecht Gender Dysphoria Scale (UGDS). The authors created this measurement tool which they admit "was not designed to be used after treatment." [24] After opposite sex hormone treatment, the children showed no improvement in gender distress, anxiety, or anger.[20]

Later, however, when the Dutch reported their subsequent data, after 55 of these children had "surgical reassignment," they noted a marked reduction in gender dysphoria.[19] This dramatic change in the UGDS score can be explained because researchers switched the scale from male to female. In other words, females were measured as females before surgery then evaluated as males after surgery, and vice versa. This is scientifically unsound.

Others have also challenged the validity of the Dutch claims because of this switching of the scale.[24-26] And in the Dutch study there was one death as a complication of surgery.[19]

The Gender Identity Development Service (GIDS) in the United Kingdom began treatment of minors with gender dysphoria in 1989. This was the largest and oldest center in the world treating children with gender dysphoria, until it closed its doors this spring. Since 2009, psychologist Dr. Polly Carmichael has been the director. In 2011, GIDS embarked on a clinical trial in children aged 12–15 in an attempt to investigate the benefits of pubertal

suppression. GIDS had been using this treatment for years in slightly older children admittedly without adequate evidence. The research team, therefore, tried to confirm the claims of the Dutch group. Their study included only 44 children and also had no control or comparison group. The children were followed up for up to 3 years on puberty blockers. Finally in 2021, they published their findings: they found no change whatsoever in psychiatric distress with puberty suppression.[27] Dr. Carmichael and colleagues wrote in this paper: more studies were needed to "fully quantify the harms and benefits of pubertal suppression."[27]

Recent data showing no benefit with hormonal interventions

A publication this year described the outcome of treating transgender youth with opposite sex hormones at four U.S. clinics over a two-year period. Their ages ranged from 12-20 with a mean age of 16. This low-quality study (as discussed below) had no control or comparison group and no description of psychologic treatments provided. The authors found no change in depression, anxiety, or life satisfaction in biologic males. [28]

Most current data show that 70% of children with gender dysphoria have had recent trauma, history of abuse, autism spectrum disorder, homosexual orientation, depression, anxiety, or bullying. [13] [29-32] Hormonal or surgical interventions fail to address these problems. As stated above, the original Dutch study excluded these children.[19,20] Therefore, it is misleading to extrapolate the claims from the Dutch protocol to current youth with gender dysphoria who often have psychologic co-morbidities.

Weak evidence for hormonal or surgical interventions in children with gender dysphoria?

All evidence is not of the same quality. The phrase "evidence based" must be carefully understood.

GRADE is a standard accepted method of judging the quality of data.[33] There are four levels of evidence in GRADE. When the GRADE score is "low," the true effect is likely to be markedly different from the estimated effect.

A paper published last year in The Endocrine Society's key journal summarized the evidence on hormonal interventions for "gender diverse adolescents" as sparse and of low quality.[34]

The key authoritative endocrinology textbook, Degroot's Endocrinology, published in 2023, included a chapter on Transgender Healthcare, written by a WPATH member.[35] That chapter states that "long- term prospective outcome studies of the effects of GAHT (gender affirming hormone therapy) of any type are lacking. What data that do exist are mostly retrospective and have numerous limitations."[35]

WPATH's guidelines are mostly opinions not supported by science. WPATH guidelines [16,17] have not been assessed using GRADE criteria and as discussed above are not considered "trustworthy."

The last Endocrine Society guidelines were published in 2017.[15] The authors of those guidelines judged their evidence to be of low or very low quality.[15] I understand that the Endocrine Society will be revising those guidelines.

There is simply no high-quality evidence that hormonal or surgical interventions in youth with gender dysphoria reduce their psychic distress. A systematic review published this year in the journal Transgender Health [36] concluded that there was a "lack of high-quality studies" and that all studies done were observational. The authors found no randomized controlled trials.

Cochrane Reviews are highly respected rigorous reviews of published data. A Cochrane Review was performed of hormonal interventions in biologic males with gender dysphoria. They found "insufficient evidence to determine the efficacy or safety of hormonal treatment approaches in transgender women in transition." [37]

The listing of medical groups that endorse a treatment does not strengthen the flimsy evidence base. Doctors, like all groups, are susceptible to group think and social contagion.

Just because a harmful intervention is popular does not prove it to be safe or beneficial. The neurosurgeon who pioneered the popular brain surgery pre-frontal lobotomy for mental disorders was awarded the Nobel Prize.[38] That treatment has been widely discredited.

Here is another example to stress the necessity for high quality data: for years, right after menopause it was very popular to prescribe women the female hormones, estrogen, and progesterone. Doctors were sure it would reduce the risk of heart attacks and help women stay healthy. Only after a large high quality, randomized, controlled trial was it revealed that these hormonal treatments increased the risk of stroke, blood clots, and breast cancer.[39]

Do hormonal and surgical treatments for gender dysphoria reduce suicide risk?

Suicide risk is increased in youth with gender dysphoria but remains very low. In a recent study, the annual suicide rate of transgender youth was 0.013 per cent.[40] Suicidal thoughts and suicide are not to be confused. I am not aware of any studies that demonstrate that the rate of suicide in youth with distress attributed to gender differs from the suicide rate

in youth with other mental health disorders including depression, post-traumatic stress disorder, anxiety, and autism spectrum disorder.

The Dutch study provided no data on suicide. Some data suggest that hormonal and surgical interventions in persons with gender dysphoria may increase the risk of suicide.

A long-term study of transgender persons in Sweden[41] found a 19-fold overall higher suicide rate, 40-fold higher in females, and a 3-fold higher overall mortality during an average of 11 years of follow up. These rates were in comparison to the control population. Most importantly, these outcomes were seen despite treatment with opposite sex hormones and surgery.

In another study of over 8,000 transgender persons, two-thirds of those who died by suicide were still receiving treatment at the gender dysphoria center.[42]

Another researcher reported follow up of persons treated at the main gender clinic in the Netherlands. Over a median 18 years of follow up, the suicide rate was six times higher in male to female persons than in an age-matched population.[43]

In a recent U.S. study, published this year, there was a 45-fold higher than expected suicide rate in the adolescents on opposite sex hormone therapy during their care at gender clinics (compared to the Center for Disease Control age-matched population).[28,44]

At a minimum, one must conclude from these studies that persons with gender dysphoria continue to have significant psychiatric issues despite hormonal and surgical interventions.

Known and Unknown Harms of Puberty Blockers

Background: The ovaries make the principal female hormone called estrogen. The testes make the principal male hormone called testosterone. Ovaries are the site of production of gametes called ova (singular is ovum). When an ovum is fertilized with a sperm, an embryo can form and lead to the birth of a newborn baby. The testes and ovaries are both regulated by a small gland in the brain called the pituitary. The pituitary is considered a master gland because it regulates other hormone producing glands, not just the ovaries and testes. The pituitary makes two hormones abbreviated LH and FSH; these regulate the ovaries and testes. LH and FSH are called gonadotropins. The pituitary gland is, in turn, controlled by an area located above it called the hypothalamus. The hypothalamus produces many vital substances. One of these is gonadotropin releasing hormone, abbreviated GnRH. GnRH stimulates the release of LH and FSH.

Drug companies have modified the chemical structure of GnRH into chemicals called GnRH analogs. GnRH analogs are often called puberty blockers. GnRH analogs are administered, usually as an injection (every 1-6 months). There is also a form of a GnRH

analog that is implanted version under the skin. GnRH analogs block or stop the GnRH signals that come from the hypothalamus. Blockade of those signals means there is no secretion of LH and FSH and, as a consequence, the testes and ovaries are turned off.

GnRH analogs are not FDA approved for use in children with gender dysphoria. They are approved for use in children who have the relatively rare disorder called central precocious puberty. Central precocious puberty is a condition in which puberty occurs at an abnormally early age, generally below the age of 8 in girls and 9 in boys.[15,45,46]

GnRH analogs are approved for treatment of endometriosis in women. GnRH analogs will stop the signals from the brain that cause ovulation and menstruation. They will markedly lower estrogen which reduces bone density as a side effect.[45]

GnRH analogs have also been used in the treatment of prostate cancer because they markedly lower the male hormone, testosterone. Testosterone increases the growth of diagnosed prostate cancer.[47] The cancer is suppressed by reducing testosterone from the testes.

There are no controlled trials that prove the safety of GnRH analogs in children with normal puberty. There are many unknowns with puberty blockers even in those for whom they are FDA approved.

Puberty blockers may cause hot flashes, weight gain, fatigue and mood alterations.

Seizures have been reported in children receiving puberty blockers. It is unclear if the seizures are related to the drug or the underlying condition of the child.[48]

A disorder affecting the hip, slipped capital femoral epiphysis, has been reported in children on puberty blockers.[48]

Reductions in bone density are seen with use of puberty blockers; those reductions increase the risk of bone fractures.[49-51]

Pseudotumor cerebri (also known as idiopathic intracranial hypertension) has been associated with puberty blockers. This condition can cause severe headache and loss of eyesight.[46,52,53]

Early administration of puberty blockers will reduce penile growth and may not allow sufficient tissue to create a vagina-like structure, despite surgery called vaginoplasty.[54]

Dr. Marci Bowers, a surgeon and renowned vaginoplasty specialist, described another adverse effect of puberty blockers in boys. These persons will not be able to achieve an orgasm as adults.[55]

Children who fail to progress through puberty are infertile. This is a biologic fact.

Early initiation of puberty blockers will stop maturation of the testes and the ovaries. If

the testes or ovaries fail to mature, sperm and ova cannot be produced. Infertility will likely occur especially if followed by opposite sex hormones.[15,56,57]

Gender clinics now are advised to routinely counsel children about the loss of fertility and steps they might take in response.[58] Authors this year wrote that "Research protocols for ovarian and testicular tissue cryopreservation have been developed at some centers and these methods can be also applied to children." [57] These "research" approaches have uncertain efficacy and are very costly.

The Swedish government commissioned a study on hormonal therapy in children with gender dysphoria. The authors concluded in their systematic review[71] that "the long-term effects of hormone therapy on psychosocial and somatic health are unknown, except that GnRH analog treatment seems to delay bone maturation and gain in bone mineral density." They concluded that "GnRH analog treatment in children with gender dysphoria should be considered experimental." [59]

In 2021, the UK's National Institute for Health and Care Excellence (NICE) published an extensive review, over 130 pages, examining puberty blockers for gender dysphoria in children.[60] They found "a lack of reliable comparative studies." They concluded that "the studies that reported impact on the critical outcomes of gender dysphoria and mental health (depression, anger and anxiety), and the important outcomes of body image and psychosocial impact (global and psychosocial functioning) in children and adolescents with gender dysphoria are of very low certainty using modified GRADE."

The authors wrote that these studies "suggest little change with GnRH analogues from baseline to follow-up." They did note a loss of the expected increase in bone density that is normally seen in children not taking puberty blockers.

Blocking of puberty in a child with normal puberty is a powerful intervention that has psychologic and physical impacts. Brain maturation during puberty is crucial.[61,62] There are no studies of the effect of blocking normal puberty on judgment, cognition and emotional development.[63]

However, one careful study is noteworthy. An 11-year-old male treated with a GnRH analog for gender dysphoria showed an abnormal failure to increase brain white matter. In addition, he had a reduction in IQ and memory during 22 months of puberty blockers.[64]

The Endocrine Society pointed out the need for more data on the effects on the brain and wrote that "animal data suggest there may be an effect of GnRH analogs on cognitive function".[15]

Dr. Hilary Cass, a former president of the Royal College of Pediatrics and Child Health, in her interim report [9] (see below) expressed concern that blockade of puberty may impair

"maturation and development of frontal lobe functions which control decision making, emotional regulation, judgement and planning ability."

Furthermore, she states: "The most difficult question is whether puberty blockers do indeed provide valuable time for children and young people to consider their options, or whether they effectively 'lock in' children and young people to a treatment pathway which culminates in progression to feminizing/masculinizing hormones by impeding the usual process of sexual orientation and gender identity development."[9] Dr. Cass states that more research is needed. The answer to this question is not known.

Harms of opposite sex hormones

Most of the data on the effects of opposite sex hormones come from follow up on adults. There are very little data on minors. Pediatricians and pediatric endocrinologists would fail to recognize any of these long-term harms because they usually do not provide care to persons after the age of 18.

The dose of the principal male hormone, testosterone, that is recommended by the Endocrine Society for gender dysphoric females would produce levels 20-40 times higher than the normal blood level of testosterone in females.[15]

Estradiol is the main female hormone. Males normally have levels below 30 pg/ml.[77] For gender dysphoria in biologic males, the Endocrine Society recommends estradiol level of 100-200 pg/ml, about 5 times higher than a normal male. [15]

For natal females treated with testosterone

Short term effects of testosterone given to natal females include acne, [65] baldness, facial hair, clitoral enlargement, and pelvic pain.[66] There may be deepening of the voice.

Infertility is frequent in those females treated with testosterone even if not given puberty blockers. [15,56,57,67] Testosterone causes blockage of the fallopian tubes which transport the ovum.[67]

Increases in the red blood cells with consequent thickening of the blood, called erythrocytosis, is a known risk of testosterone therapy especially when testosterone is given by injection.[68]

Increases in blood pressure and reduced elasticity of the arteries has been reported with testosterone treatment in adolescent females.[69]

Testosterone treatment in females has caused pseudotumor cerebri.[70]

Longer term adverse effects of testosterone given to females include: a greater than 4-fold increase in rate of heart attack and an almost doubling of the rate of stroke.[71,72]

With testosterone treatment in females, breast cancer onset is 20 years earlier than expected.[73,74] Breast cancer has been seen even in those females who have had mastectomies— euphemistically called "top surgery". These females retain some breast tissue even after their mastectomies.[75,76]

Testosterone treatment in females causes abnormalities in the pap smear making it more difficult to diagnose cervical cancer. [77]

Testosterone treatment increases the risk of myocardial infarctions (heart attacks) by three and half times that of women not given testosterone.[71,72, 78]

Testosterone increases the risk of strokes almost two-fold compared to women not given testosterone. Strokes are usually caused by blockage of blood flow to the brain. [71,72, 78]

For natal males treated with estrogen

Biologic males treated with estrogen have a 22-fold increase in the rate of breast cancer.[79] Biologic males treated with estrogen may have increased risk of prostate cancer.[80]

Prostate cancer risk can be easily overlooked in these men who appear as women. They still have a prostate gland. Estrogen treatment in biologic males may increase the risk of other cancers.[81] Biologic males treated with estrogen have a 36-fold higher risk of strokes. Venous thromboembolism (clots in veins that can pass to the lung and cause death) is increased more than six times that of males who are not given estrogen. [71,72,78]

Biologic males treated with estrogen may have an increased risk of retinal vein occlusion (blockage in blood flow from the back of the eye).[82]

Treating biologic males with estrogen may alter their immune systems and increase the risk of autoimmune disorders.[83]

How is gender dysphoria approached now in other countries that have had decades more experience than the United States?

Centers in Europe have offered hormonal and surgical treatments for gender dysphoria long before this became common in the U.S.

In the UK, the GIDS had been in operation since 1989 and treated over 10,000 youth with gender dysphoria. That center is scheduled to close shortly. Dr. Hilary Cass was asked to perform an independent review of GIDS. In February 2022, she issued an interim report.[9] She noted many problems in the care of these children and pointed out that the "appropriate management of young people with gender dysphoria is inconclusive both nationally and internationally." She stated that "given the gaps in the evidence base regarding hormone treatment" the child must have a thorough assessment of the full range of factors affecting their physical, mental, development and psychosocial

wellbeing." She stated that there should not be an "unquestioning affirmative" approach to these children.[9]

In February 2022, Sweden issued new guidelines[84] recommending psychologic care as the first line of treatment. Its new guidelines stated that the risks of hormonal interventions outweighed benefits and that hormonal interventions in minors could only be used as part of a research protocol.

The French National Academy of Medicine has recommended extending as much as possible the psychological support phase. They advised "the greatest reserve" in the use of hormonal treatments.[85]

In Norway, the Norwegian Healthcare Investigation Board concluded that there was "insufficient evidence for the use of puberty blockers and opposite sex hormones in young people." [86]

In 2020, Finland issued new guidelines[87] recommending psychosocial support as first line treatment and, as necessary, gender explorative therapy and treatment for comorbid psychiatric disorders. The Finnish health care board stated that "hormonal interventions may be considered "with a great deal of caution" and "no irreversible treatment should be initiated."

How often do those who transition desist or detransition and once again identify consistent with their natal sex?

Gender clinics have failed to carefully follow up on these children to determine the outcomes of their interventions. In general, pediatricians and pediatric endocrinologists stop caring for children once they turn 18. Therefore, they fail to see the harm they may have caused.

There is increasing evidence of regret and detransition. Detransitioning tends to occur at least 4 years after treatment.[13,88-90]

76% of those who detransition did not inform their physicians about their detransition.[13] The largest recent series, 952 adolescents, were evaluated for treatment discontinuation over 4 years. Their average age was 19. Among those who had started hormonal intervention before age 18,

26% discontinued treatment. Of all the natal females, 36% discontinued treatment.[89]

In my practice, I treated about 100 individuals with gender dysphoria. I estimate that 70% of those discontinued the hormonal treatment that I was prescribing. My youngest patient was 18.

These patients did not transfer to other physicians for their transgender care because there were no other physicians treating at the time. I stopped accepting new patients for gender dysphoria in 2013. Those patients that discontinued their care with me did not inform me of their decision to do so. They simply did not return for office visits.

Another study sought reasons for those who underwent detransition.[13] Difficulty in accepting oneself as lesbian, gay, or bisexual was expressed by 23% of persons.[13] It was easier to be "trans" than to see oneself as gay or lesbian. This was a form of "internalized homophobia."[13]

The majority of those who detransitioned did not think they had an adequate evaluation before starting "transition." Many concluded that their gender dysphoria was related to other issues.[13,88] Of those, 48% of those people reported a history of trauma within the year preceding their diagnosis of gender dysphoria.[13]

Informed Consent

Informed consent is an essential element of patient care where there is a risk of adverse outcomes. Informed consent is not just getting a signature on a form.

Informed consent is also foundational to the ethical conduct of clinical research.

the treatment or intervention or not. But they are not able to give *informed* consent until they turn eighteen.[109,110]

The United States is a signatory to the United Nations Convention on the Rights of the Child. The *Declaration of the Rights of the Child* states that "the child, by reason of his physical and mental immaturity, needs special safeguards and care."[91] These safeguards are uniquely important when it comes to an experimental intervention. The Declaration of Helsinki[92] allows individual parents to consent to an experimental treatment for their child. Usually, this choice is made in an extraordinary circumstance, to save that child's life, and with the child's assent. Experimental treatments to change physical appearance should not be an exception to these requirements.

The psychiatrist Dr. Stephen Levine and colleagues have discussed the inadequacies in the informed consent process for minors with gender dysphoria.[23] Clinicians are required to provide balanced and thorough information on all the potential risks and benefits and unknowns of the treatment as well as alternative treatments available. Clinicians must assess the competence and understanding of the patient and caregiver.

Often the informed consent process is "perfunctory" with "poor evaluation" of children and "incorrect and incomplete information." Evidence of this inadequate consenting process has been revealed by those who have desisted, and detransitioned and by whistleblowers at gender clinics.[7, 13,93] [8]

Conclusion

I stopped treating adult persons with gender dysphoria because I did not see benefits despite hormonal interventions.

The data in minors are very clear: there is no compelling basis to allow puberty blockers, opposite sex hormones, or surgery in children or adolescents. We must first, do no harm.

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