

Testimony on the Dangers of Gender-Affirming Care

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Chairman Johnson, Ranking Member Scanlon, and members of the Sub-committee:

Thank you for the opportunity to speak with you today. My name is Dr. Jennifer Bauwens. I am a licensed therapist and clinical researcher currently serving as Director of the Center for Family Studies at Family Research Council. Based on over 25 years of experience as a clinician providing trauma therapy to children and as a researcher investigating the psychological effects of traumatic stress, I am here to express my concern about what has been termed "gender-affirming care" for children.

I have considered it a privilege to practice, research, and train future clinicians and be a part of a discipline aimed at protecting and bringing healing to the most vulnerable in our society—children. But when it comes to gender transition procedures, my field is not operating as a helping profession. Instead, it is actively causing harm.

Historically, children have been treated as a special and vulnerable class in the psychological and research fields. This followed a series of highly unethical and dangerous medical studies that came into public view (e.g., Tuskegee). The need for ethical research standards culminated with the passage of the National Research Act of 1974 and the subsequent Belmont Report of 1979. The Belmont Report gave guidance for ensuring that research practices were nonexploitative. For this reason, children, as well as

those with intellectual disabilities and other groups of people who could be targeted with coercive treatment and research protocols, were to be afforded extra precautions. Of course, greater caution was applied to children in light of the fact that they do not have the developmental capacity to understand life-long decisions. How many of you wish you could change something you did in elementary or high school?

Even if natural observation wasn't enough to confirm the need for extra precautions for children, neurological science tells us why this is the case. A large-scale study of 20,000 brain scans funded by the National Institutes of Health found that the brain continues to develop into a person's mid-twenties.¹ Some of the greatest developmental strides occur within complex neurological structures during adolescence. The limbic system, also known as the seat of our emotions, relates to emotional processing, learning, and memory and is still undergoing major change. Importantly, this structure is known to play a role in many mental disorders. It also takes the longest to reach structural norms. Again, most people do not reach these norms until their twenties. Hence, the reason why the psychological, medical, and research fields have instituted ethical safeguards to move conservatively with regard to interventions, particularly when the evidence is weak, or the research methods and agenda are in the early phases (which is the case in transgender research).

Sadly enough, some in my profession have set aside this basic understanding of child neurological, emotional, and cognitive development. Instead, they have embraced what has been referred to as "gender-affirming care," which permanently alters the human psyche and physiology through puberty blockers, cross-sex hormones, and surgical procedures to remove healthy body parts.

Incidentally, compared to other psychological disorders found in the DSM V-TR, gender-affirming care is the most invasive and unnecessary physiological intervention connected to a psychological issue. Gender-affirming care is also in direct opposition to the basic practices of good mental health treatment.

- 1) As I already mentioned, this experimental practice has been administered to children despite our understanding of a child's developmental capacity to truly give **informed consent** for social and physiological interventions that have life-long consequences.
- 2) The state of the scientific literature is based on consensus, not evidence. This means that people who have an interest in transgenderism joined a committee on the topic and voted on the use of gender-affirming care rather than promoting it based on the merits of the research findings addressing gender dysphoria, which are quite poor.

In fact, based on the research methods alone, never mind the topic of inquiry (*i.e.*, cross-sectional, self-selected samples, no RCTs, missing significant variables), gender-affirming practices should never have been allowed on anyone, particularly a child.

- 3) Therefore, it is no surprise that the benefits do not outweigh the risks. If I told you that 85 percent of research participants no longer had anxiety, posttraumatic stress, etc., after going through my treatment program, I'd be the next multimillion-dollar grant recipient of NIH funds, and suddenly you'd see clinics everywhere adopting my new treatment. This success rate is already true for gender dysphoric children.² If we provide basic supportive therapy or simply leave children alone, they will desist. Given this, gender-affirming care is not only unnecessary but potentially interrupts a natural developmental process.
- **4)** Good mental health assessment and research accounts for competing diagnoses (variables in the research context). This one-size fits all approach to gender dysphoria emphasizes the source of psychological distress as related to an issue of acceptance. This is done at the expense of a thorough understanding of other psychological phenomena that may play a significant role with gender dysphonia (*i.e.*, neurodevelopmental and other mental disorders, substance use, self-harm, and traumabased responses). The problem with this premise is that it explains away other sources of distress, not giving proper weight to other issues known to be prominent in the trans-identifying person may experience. Without including these known factors, the clinician and the researcher will almost always have an incomplete picture of the problem.

For example, gender-affirming practice and research do not account for the high rates of early childhood trauma (ACEs) found in the transgender-identifying population.

The UCLA Williams Institute, an LGBTQIA+ advocacy group, found that:

- 45 percent of transgender-identifying people reported childhood sexual abuse.
- 44 percent of transgender-identifying people reported childhood physical abuse.
- 75 percent of transgender-identifying people reported childhood emotional abuse.⁴

As a trauma clinician, I can tell you that when someone has endured a traumatic event, particularly one sexual in nature, it is not uncommon for a person to hate the parts of their body or want to get rid of those aspects of themselves that made them vulnerable.

For the trauma survivor, an ideology that suggests a child can be born in the wrong body, unfortunately, fits hand-in-glove with the mentality of a person who self-harms and wants to dissociate from any aspect of their being or body that highlights vulnerability. Yet, despite this knowledge, clinical settings and research studies promoting transgenderism have not properly accounted for this significant variable and how it relates to gender dysphoria.

5) Empowerment and self-management are aspects of good mental health practices. We often hear that suicide will be the result if someone struggling to embrace their biological sex isn't offered transgender physiological procedures. It is entirely inappropriate and unethical for anyone in my profession to plant the idea that an inevitable outcome will be suicide (even in the absence of expressed suicidal ideation) if the clinician's counsel for gender-affirming care is not followed. This is blatantly manipulative and has no part in promoting psychological or relational health.

Scientifically, based on the research methods alone, it is impossible to establish a causal relationship between the absence of gender-affirmative procedures and suicide. A recent meta-analysis from the suicide literature, which has been around a lot longer than research addressing gender dysphoria, notes a number of risk factors for a completed suicide, which curiously happen to be the same risk factors that

are prominent in the trans-identifying community. This literature frequently reports that although we have identified risks, it is unclear which combination will ultimately lead someone to suicide.⁵

In the practice setting, using the threat of suicide to motivate a client or family member to engage in an intervention would be considered egregious when dealing with any other issue. I worked on a suicide hotline early in my career. We know someone who gambles often can be at risk for suicide, especially after a big loss. As a clinician, it would be bad practice for me to tell someone who gambles that if they don't get more money to gamble, they will probably commit suicide. Yet, this threat is given every day in settings all over where gender dysphoria is the focal point.

Taken together, the onus should be on the transgender theorists and researchers to tell us (with overwhelming results from RCTs, clinical practice reports, and long-term studies that report on five to seven years after the procedures) that this practice significantly benefits children and far outweighs the harms. Instead, this research body leaves many unanswered questions on the mental health front. Contrary to some political opinions, this matter is far from settled. Here are a few of the countless unanswered questions:

- 1. What factors are responsible for the new cohort of biological females presenting as gender dysphoric rather than the historic numbers who were primarily biological males?
- 2. Are there comorbidities that affect the outcome?
- 3. Do biological males and females have different outcomes as a response to gender affirmation and different responses to components of these interventions?
- 4. Is there an aspect of gender-affirming care that affects a quantifiable rate of those with gender dysphoria?
- 5. Who will fare best after surgery, cross-sex hormones, or puberty blockers?
- 6. **No common program evaluation questions have been answered.** For example, what effect does attending treatment alone have on mental health outcomes (without gender-affirming care)?
- 7. Who are the people who regret each one of these unique interventions (*i.e.*, puberty blockers, hormones, and surgeries)?

- 8. What effect do transgender physiological procedures have on trauma symptoms, the desire to self-harm, or other mental distresses?
- 9. Who is most likely to benefit or be harmed by these procedures?

Instead of answers to these questions, we've plowed ahead with practices that break ethical research and practice boundaries. Gender-affirming care creates an illusion that there is only one choice for children and their families to experience relief from their distress, and that is to become someone else.

Please look at www.cochrane.org, the website of the healthcare information organization the Cochrane Collaboration, and type in the name of any mental disorder (*i.e.*, depression). You will see a multitude of treatments that have been researched to help children through depression. When it comes to gender dysphoria, there's only one path. That is, to make yourself look like someone else. These kids deserve better. We should be innovating solutions to heal their distress, not coercing them onto a path that tells them they need to remove or change parts of who they are in order to be whole.

I'm calling on you to please act on behalf of children. Please see Appendices A-C for more information on this issue.

Jennifer Bauwens is Director of the Center for Family Studies at Family Research Council.

¹ Ajay Nadig et al., "Morphological integration of the human brain across adolescence and adulthood," *Proceedings of the National Academy of Sciences of the United States of America* 118, no. 14 (2021): e2023860118, https://www.pnas.org/content/118/14/e2023860118.

² Jiska Ristori and Thomas D Steensma, "Gender dysphoria in childhood," *International Review of Psychiatry* 28, no. 1 (2016): 13-20, https://doi.org/10.3109/09540261.2015.1115754; Devita Singh et al., "A Follow-Up Study of Boys With Gender Identity Disorder," *Front Psychiatry* 12 (2021): 632784, https://doi.org/10.3389/fpsyt.2021.632784.

³ Chris Rowe et al., "Prevalence and correlates of substance use among trans female youth ages 16–24 years in the San Francisco Bay Area," *Drug and Alcohol Dependence* 147 (2015): 160–66, https://doi.org/10.1016/j.drugalcdep.2014.11.023. ⁴ Ilan H. Meyer et al., "LGBTQ People in the US: Select Findings from the Generations and TransPop Studies," UCLA School of Law – Williams Institute, June 2021, https://williamsinstitute.law.ucla.edu/wp-content/uploads/Generations-TransPop-Toplines-Jun-2021.pdf.

https://www.cochrane.org/search/site/depression.

⁵ Christine B. Cha et al., "Annual Research Review: Suicide among youth - epidemiology, (potential) etiology, and treatment," *Journal of Child Psychology and Psychiatry* 59, no. 4 (2018): 460-82, https://doi.org/10.1111/jcpp.12831.

 $^{^{\}rm 6}$ "Site search: Depression," The Cochrane Collaboration, accessed January 23, 2023,

⁷ "Site search: Gender dysphoria," The Cochrane Collaboration, accessed January 23, 2023, https://www.cochrane.org/search/site/gender%20dysphoria.

Appendix A

The following will address the problematic research used to promote physiological procedures (*i.e.*, puberty blockers, cross-sex hormones, and surgery), often referred to as "gender-affirming care." These procedures have been promoted as an intervention to treat psychological distress defined by the Diagnostic and Statistical Manual of Mental Disorders Edition 5-TR (DSM 5-TR) as gender dysphoria (GD). This testimony speaks to the current state of the scientific literature and raises significant concerns about the quality of the evidence used to support gender-affirming care, which is the most invasive practice(s) for treating any psychological condition conceptualized in the DSM 5-TR. The studies referenced in this testimony raise concern that no clear and long-term path has been established to demonstrate that gender-affirming practices successfully reduce the psychological distress characteristic of GD. Lastly, this testimony will highlight ideological rather than scientific evidence that has been used to support the use of gender-affirming practices.

What Transgender Advocates Themselves Are Saying

Before looking at the studies, it is important to note what the primary transgender advocacy group has said about the current practices for treating gender dysphoria. The World Professional Association for Transgender Health (WPATH), formerly the Harry Benjamin International gender dysphoria Association, is a key promoter of using surgical procedures and off-label drugs to treat the psychological distress associated with GD. WPATH "publishes the leading clinical guidance on gender dysphoria treatment," guidance that some medical groups claim is a "robust body of scientific evidence" and use to administer puberty blockers, cross-sex hormones, and surgical procedures. However, as the U.S. Courts of Appeal for the First and Fifth Circuits have recognized, WPATH's guidelines "reflect not consensus, but merely one side in a sharply contested medical debate."

A few of WPATH's own leaders have publicly agreed with the First and Fifth Circuits' explanation of the group's practice guidelines:

Dr. Stephen Levine, who helped author an early version of WPATH's guidelines, said "that later versions of WPATH were driven by political considerations rather than medical judgment." Dr.

Levine said that the guidelines are not "politically neutral" because WPATH is "an advocacy group for the transgendered"—which means that its positions "sometimes conflict" with "scientific" evidence and that the group does not "tolerate" "[s]kepticism and strong alternate views." Dr. Levine added that the field generally is characterized by a "lack of rigorous research" about "the long-term effects of sex reassignment surgery and other gender dysphoria treatments."³

Dr. Marci Bowers, who has conducted more than 2,000 gender transition surgeries, known as vaginoplasties, noted that in formulating the guidelines, WPATH "tr[ied] to keep out anyone who doesn't absolutely buy the party line that everything should be affirming," leaving "no room for dissent." And Bowers lamented that many clinics like Planned Parenthood would start giving adolescents cross-sex hormones after just "one visit."⁴

Drs. Levine and Bowers are not the only medical and mental health professionals commenting on the credibility of the scientific evidence used to undergird gender-affirming practices.

The State of the Scientific Literature: Consensus Is Not Evidence

In 2012, the American Psychiatric Association (APA) Task Force reported on the treatment of Gender Identity Disorder (now gender dysphoria). The report concluded that the "quality of evidence pertaining to most aspects of treatment in all subgroups was determined to be low; however, areas of broad clinical consensus were identified and were deemed sufficient to support recommendations for treatment in all subgroups." Note the use of the phrase "clinical consensus" rather than the term "evidence-based." Although this statement is from 2012, there has been very little change in the literature since the APA made this statement.

A study conducted in 2021 assessed the relationship between gender-affirming practices and mental- health outcomes. This study referred back to the APA's earlier conclusion that "the quality of evidence for treatment of gender dysphoria is low, and consequently, recommendations regarding gender-affirming care have been driven by clinical consensus where empirical evidence is lacking. This [their] study offers new data that substantiate the current clinical consensus by

expanding the evidence base in support of gender-affirming surgical care." That is, the researchers who published this comment in 2021 recognized more studies are needed to claim robust empirical support for gender-affirming care that goes beyond clinical consensus.

These concerns certainly apply to WPATH's guidelines, too, which are not true standards of care. They cannot be true standards of care because the evidence to support these practices does not exist. In short, these guidelines are "suggestions or recommendations," not "authoritative, unbiased consensus positions designed to produce optimal outcomes." Worse, they are suggestions based on an ideological construct, not solid empirical data. This is also the case in the latest iteration of the WPATH guidelines (version 8), which note that the standards are based on the "best available evidence." Ultimately, these guidelines were constructed and then voted on by those who adhere to transgender ideology and not on the basis of studies with solid research methods and certainly not by any neutral research entities.

Given the use of highly physiologically invasive practices associated with "gender-affirming care," the nature of these practices should necessitate the highest standard of evidence from studies that employ a wide range of research methods (e.g., sampling, design). These studies should stand up against the most rigorous scrutiny, and any data used to support these practices should be available for secondary analysis. Instead, any efforts to question the methods of these studies are met with attempts to suppress legitimate scientific debate (e.g., Washington State⁷). Further, many of the studies used to support these practices are from cross-sectional investigations, are missing key variables that are known to present in the transgender-identifying community (e.g., ACES), and contain poorly defined constructs (e.g., Turban study⁸ 2,3). Still, these studies are touted as proof that transgender physiological procedures have a positive and unquestionable effect on mental health. Some have even claimed this effect on mental health is settled, which is quite a remarkable statement that cannot be said about any other psychological issue outlined in the DSM 5-TR. Based on the research methods alone, these studies are limited in their ability to evaluate the impact of major life-altering pharmaceuticals and surgeries, particularly on minors. Therefore, if the scientific method is adhered to, any claims to calling these procedures a settled science cannot be supported with any measure of professional integrity.

Reports on Puberty Blockers

These drugs have been portrayed as well-known and that their "effects are reversible." Yet the effects cannot be accurately depicted as reversible because a child blocked from development can never get those years back. There is also evidence that these drugs could have long-term negative effects. At a minimum, as the U.K. High Court explained, "there is real uncertainty over the short and long-term consequences of the treatment with very limited evidence as to its efficacy, or indeed quite what it is seeking to achieve." ¹⁰

Likewise, Britain's recent National Institute for Health and Care Excellence (NICE) review concluded that no "reliable comparative studies" exist about "the effectiveness and safety of [puberty blockers] for children and adolescents." In 2022, the Cass Review was conducted at the commissioning of the U.K.'s National Health Service (NHS). After a review of the data and engagement with a wide range of stakeholders, the interim report expressed concern over the use of puberty blockers and hormones for children and adolescents. 12

Advocacy groups like the American Academy of Pediatrics (AAP) also say that puberty blockers may have "long-term risks, particularly in terms of bone metabolism and fertility" that cannot currently be assessed by the "limited" research available.¹³

In terms of mental health, puberty blockers in adolescents can lead to depression and other emotional disturbances. Some evidence shows "that after a year on [puberty blockers,] children reported greater self-harm, and that girls experienced more behavioral and emotional problems and expressed greater dissatisfaction with their body."¹⁴

Lupron, the most widely prescribed puberty blocker for females in America, may block hormones that contribute to neurological development, "suppressing peak IQ" levels. ¹⁵ As endocrinologist Dr. William Malone has explained, puberty cannot necessarily be "restart[ed]" later: once "the system 'goes to sleep," "it may not wake up." ¹⁶ Finally, the use of puberty blockers may worsen gender dysphoria by "solidif[ying] the feeling of cross-gender identification." ¹⁷

For these reasons, including the known physiological harms that come through these medical interventions (see attached paper), the U.K High Court found that "the consequences of the treatment are highly complex and potentially lifelong and life changing in the most fundamental way imaginable." "The treatment goes to the heart of an individual's identity, and is thus, quite possibly, unique as a medical treatment." Additionally, Britain's NICE review concluded the "limited evidence for the effectiveness and safety of gender-affirming hormones in children and adolescents with gender dysphoria" consists entirely of studies that are "uncontrolled," "observational," or have "outcomes of very low certainty." ²⁰

The Scientific Evidence Used to Support Transgender Medical Procedures Is Weak

Despite the learning from other countries, medical interest groups in the United States continue to claim that "research has linked gender-affirming care to a significantly lowered risk of depression, anxiety, and other negative mental health outcomes."²¹ For support, medical groups have cited "a study of 50 transgender youth undergoing puberty suppression treatment [that] found that the treatment was associated with decreased depression and improved quality of life over time."²²

That study—contrary to the medical group's claims of "robust" evidence—acknowledged that "there are few data concerning the impact of endocrine intervention on psychological function in transgender youth."²³ And the study's results are weak at best. Of 116 participants who entered the study, less than 50 percent completed it. Forty-seven participants were given drugs, and three participants were not.

Many participants were older than age 18—as old as 25.²⁴ A non-randomized control group (*i.e.*, participants given no drugs) of three participants is deficient, and the study makes no attempt to compare outcomes between the groups. Because the study makes little effort to control for other relevant variables, the study could not show any causal relationship between gender transition treatments and outcomes. Finally, according to the study itself, "most predictors did not reach statistical significance."²⁵ No entity concerned with evidence-based medicine would rely so heavily on this study.

Medical groups in support of transgender procedures have also referenced "[a] systemic analysis of 25 years of peer-reviewed articles found a robust consensus that gender-affirming treatments, including treatments such as hormone therapy, improve the overall wellbeing of transgender individuals."²⁶ This analysis only confirms the lack of any "robust" evidence here. The analysis says nothing about this issue—gender transition drugs and surgeries for children—and it concedes that even as to adults, available evidence is "limited" and seldom involves "prospective studies or randomized control trials."²⁷

Likewise, groups advocating gender-affirming practices cite "multiple studies have revealed long-term positive outcomes for transgender people who have undergone puberty suppression." But the study by Anna Van der Miesen et al. explicitly rejected these groups' proposition, stating that it does "not provide evidence about the direct benefits of puberty suppression over time and long-term mental health outcomes." According to the study, "Conclusions about long-term benefits of puberty suppression should thus be made with extreme caution needing prospective long-term follow-up studies with a repeated measure design with individuals being followed over time." Yet, scientific groups acting in good faith would not say that a study "reveal[s] long-term positive outcomes" when it expressly repudiates that reading. 32

Regarding the claim of "long-term positive outcomes," medical groups cite a 2014 study by de Vries et al.³³ The study looked at a mere 55 people, drawn with self-selection problems from an initial group of nearly 200.³⁴ The study acknowledged that the self-selected group was "different from the transgender youth in community samples."³⁵ ("[A] selection bias could exist.") No control group existed. And the study found that gender dysphoria and "body image difficulties persisted through puberty suppression"; in fact, these problems were worse after puberty suppression drugs were used than before.³⁶ This study also found only a "small amount of scientific evidence of the medical safety and efficacy and the psychological efficacy" of treatments that have been featured as "robust" evidence.³⁷

As for the commonly cited high risk for suicide, particularly among minors who identify as transgender, groups have repeatedly cited a study by Turban et al. that used responses from an online survey drawn from trans-affirming websites as "data." The problem with this study is that

it "excluded those who underwent medical intervention and then subsequently stopped identifying as transgender" and, of course, "those who actually committed suicide." 473% of respondents who reported having taken puberty blockers" "said they started on them after the age of 18 years"—which is even not when puberty blockers are prescribed. The study itself concedes that it "does not allow for determination of causation."

Admission of Harm Is Rising

On the other hand, a growing body of evidence shows gender transition drugs and surgeries harm children (see the attached paper). Specifically, these interventions are risky and unnecessary as there is also evidence that up to 94 percent of children experiencing gender dysphoria no longer suffer from it by adulthood. This finding has been supported by WPATH's guidelines, which report that 73 to 94 percent of children referred for GD have conditions that do not "continue into adulthood." And the medical group's own study says that "predicting individual persistence at a young age will always remain difficult." Other studies confirm that most children desist. ⁴³

However, if a child is introduced to puberty blockers to prevent normal development, once they are used, they almost always lead to the use of cross-sex hormones that permanently alter the child's body. For this reason, many countries—including the United Kingdom, Sweden, and Finland—are moving away from these experimental interventions. Specifically, a number of countries have conducted their own reviews of physiological gender-affirming care and have all warned against these procedures:

- **Britain's National Health Service**'s systematic review found a lack of evidence to support the use of puberty blockers and cross-sex hormones.⁴⁴
- France's National Academy of Medicine warned about the deleterious long-term side effects of puberty blockers and cross-sex hormones in children and adolescents. They further noted that there is no solid predictive measure to ascertain the persistent or transient nature of gender dysphoria. 45

- The Finnish Health Authority's systematic review determined that GD should first be treated as a psychological condition rather than introducing physiological procedures or drugs.⁴⁶
- The Royal Australian and New Zealand College of Psychiatrists released a statement noting a need for better evidence and assessments for treating GD in children and adolescents. They also determined that the current evidence for gender-affirming care is weak.⁴⁷
- The Swedish National Board of Health and Welfare in 2022 found that the risks of these physiological hormones and procedures were greater than the benefits. This followed the Children's Hospital at the Karolinska Institute's decision to halt physiological affirming care based on their findings that the use of puberty blockers and hormones carried irreversible and negative consequences.⁴⁸

A New Cohort, but an Old and Untested Method

The protocols for gender affirmation procedures were designed 15 years ago and have no application to the patient population now presenting with gender dysphoria—overwhelmingly, adolescent females.

Since 2008, the share of biological female college students identifying as transgender has increased 100-fold. ⁴⁹ Twice as many girls as boys struggle with gender dysphoria, when the opposite was true just a few years ago. ⁵⁰ At the same time, "the number of gender clinics in the U.S. has grown from one in 2007 to hundreds today." ⁵¹ Medical professionals have called this rise in female GD a "clinical phenomenon" with "uncertain diagnostic significance making up a substantial proportion." ⁵² Many attribute this change to the rise of "rapid onset gender dysphoria." ⁵³ (The professor who coined the phrase was promptly relieved of her position. ⁵⁴)

The lead author of the Dutch study recently cautioned practitioners about using the Dutch Protocol to treat the more recent wave of girls who present as adolescents with gender dysphoria, calling this a "new developmental pathway ... involving youth with postpuberty adolescent-onset transgender histories." "According to the original Dutch protocol," she noted, "one of the

criteria to start puberty suppression was a presence of gender dysphoria from early childhood," while now "the older presenting youth simply experienced gender history events at older ages." ⁵⁶

Another of the original Dutch protocol researchers agrees. Thomas Steensma, a researcher at the Center of Expertise on gender dysphoria, explained that it is unknown "whether studies we have done in the past can still be applied to this time. Many more children are registering, and [are] also a different type."⁵⁷ Youth "with post puberty adolescent-onset transgender histories" were not studied in the earlier evaluations.⁵⁸ Steensma criticized American physicians for "blindly adopting [the Dutch] research" without accounting for the change in the population of GD patients.⁵⁹

Particularly given this new population, it is reasonable and responsible to put a hold on experimental treatments on unstudied patient groups. As one leading gender transition doctor—a WPATH board member—cautioned, "we're going to have more young adults who will regret having gone through this process" thanks to doctors "[r]ushing people through the medicalization" and failing "to evaluate the mental health of someone historically in current time, and to prepare them for making such a life-changing decision."

Regret: An Understudied Reality

There are also growing reports from those referred to as detransitioners. Many who are coerced into experimental medical interventions later regret that irreversible decision. One recent study, although limited in design, found that 60 percent of those who detransitioned "bec[ame] more comfortable identifying as their natal sex," and most "felt that they did not receive an adequate evaluation from a doctor" "before starting transition."

In this study, participants recognized that there were other root causes for gender dysphoria that were not addressed, and the transitioning process prevented them from addressing the true source of distress:

- 58 percent said the GD was caused by trauma or a mental health condition,
- **51 percent** reported the process of transitioning delayed or prevented them from dealing with or being treated for trauma or a mental health condition, and
- 41 percent said what they thought were feelings of being transgender were the result of a mental health condition.

In sum, there is a lack of scientific evidence to support the claim that gender-affirming practices account for any sustained reduction in gender dysphoria. There is evidence that puberty blockers, cross-sex hormones, and surgical procedures can cause permanent physiological damage and cause psychological harm. There is also a growing awareness of those who are unhappy with their gender-affirming care and have decided to detransition. Further investigation is needed to understand this population's experiences and those who did not fare well following these medically based practices.

I'm calling on you to please act on behalf of children.

¹ Amicus Brief, Brandt v. Rutledge, No. 21-2875, at 21 (8th Cir. 2021), https://downloads.frc.org/EF/EF21K36.pdf.

² Gibson v. Collier, 920 F.3d 212, 221 (5th Cir. 2019); see also Kosilek v. Spencer, 774 F.3d 63, 78–79 (1st Cir. 2014) (discussing debate within the medical community).

³ Amicus Brief, Brandt v. Rutledge, at 22.

⁴ Id, at 23.

⁵ William Byne et al., "Report of the American Psychiatric Association Task Force on Treatment of Gender Identity Disorder," *Archives of Sexual Behavior* 41, no. 4 (2012): 759–96, https://pubmed.ncbi.nlm.nih.gov/22736225/.

⁶ William J. Malone et al., "Letter to the Editor, Proper Care of Transgender and Gender-diverse Persons in the Setting of Proposed Discrimination: A Policy Perspective," *The Journal of Clinical Endocrinology & Metabolism* 106, no. 8 (2021): e3287–88, https://academic.oup.com/jcem/article/106/8/e3287/6190133.

⁷ Jason Rantz, "Despite 'concerning' transgender study, UW kept quiet because of positive coverage," 770 KTTH, last updated August 24, 2022, https://mynorthwest.com/3602854/rantz-despite-concerning-trans-study-uw-kept-quiet-because-of-positive-coverage/.

⁸ Leor Sapir, "A New Low: Advocates of pediatric gender transition publish a fatally flawed study purporting to debunk the social-transition hypothesis," *City Journal*, August 5, 2022, https://www.city-journal.org/major-flaws-in-new-study-on-pediatric-gender-transition; Michelle M. Johns et al., "Transgender Identity and Experiences of Violence Victimization, Substance Use, Suicide Risk, and Sexual Risk Behaviors Among High School Students —

 $19\ States$ and Large Urban School Districts, 2017," $MMWR\ 68\ no.\ 3,\ 67\mbox{-}71.$

https://www.cdc.gov/mmwr/volumes/68/wr/mm6803a3.htm.

- ⁹ Amicus Brief, Brandt v. Rutledge, at 11.
- ¹⁰ Tavistock ¶ 134; see id. ¶ 73 (noting "no overall improvement in mood or psychological wellbeing"); see Amicus Brief, $Brandt\ v.\ Rutledge.$
- ¹¹ "Evidence review: gonadotrophin releasing hormone analogues for children and adolescents with gender dysphoria," National Institute for Health and Care Excellence, March 11, 2021, 40, https://cass.independent-review.uk/wp-content/

uploads/2022/09/20220726 Evidence-review GnRH-analogues For-upload Final.pdf.

- ¹² "Independent review of gender identity services for children and young people: Interim report," The Cass Review, February 2022, https://cass.independent-review.uk/wp-content/uploads/2022/03/Cass-Review-Interim-Report-Final-Web-Accessible.pdf.
- ¹³ Jason Rafferty, et al., "Ensuring Comprehensive Care and Support for Transgender and Gender-Diverse Children and Adolescents," *Pediatrics* 142, no. 4 (2018): e2018-2162, https://pubmed.ncbi.nlm.nih.gov/30224363/.
- ¹⁴ Michael Briggs, "Tavistock's Experimentation with Puberty Blockers: Scrutinizing the Evidence," Transgender Trend, March 5, 2019, accessed January 27, 2022, https://www.transgendertrend.com/tavistock-experiment-puberty-blockers/.
- ¹⁵ Amicus Brief, Brandt v. Rutledge.
- ¹⁶ Id.
- ¹⁷ Tavistock ¶ 76; see Amicus Brief, Brandt v. Rutledge.
- ¹⁸ Tavistock ¶ 134; see Amicus Brief, *Brandt v. Rutledge*.
- ¹⁹ Id.
- ²⁰ "Evidence review: gender-affirming hormones for children and adolescents with gender dysphoria," National Institute for Health and Care Excellence, March 11, 2021, 50, https://cass.independent-review.uk/wp-content/uploads/2022/09/

20220726 Evidence-review Gender-affirming-hormones For-upload Final.pdf.

- ²¹ Amicus Brief, Brandt v. Rutledge, at 12.
- ²² Amicus Brief, Brandt v. Rutledge, at 12, 13.
- ²³ Christal Achille et al., "Longitudinal impact of gender-affirming endocrine intervention on the mental health and well-being of transgender youths: preliminary results," *International Journal of Pediatric Endocrinology*, 8 (2020), https://ijpeonline.biomedcentral.com/articles/10.1186/s13633-020-00078-2.
- ²⁴ Ibid., Tbl. 1; see also Tbl. 2 (apparently noting that 24 participants were only given cross-sex hormones).
- 25 Ibid.
- ²⁶ Amicus Brief, Brandt v. Rutledge, at 18.
- ²⁷ "What does the scholarly research say about the effect of gender transition on transgender well-being?," Cornell University, accessed January 27, 2022, https://whatweknow.inequality.cornell.edu/topics/lgbt-equality/what-does-the-scholarly-research-say-about-the-well-being-of-transgender-people/.
- ²⁸ Amicus Brief, Brandt v. Rutledge, at 18-19.

²⁹ Anna I. R. van der Miesen et al., "Psychological Functioning in Transgender Adolescents Before and After Gender- Affirmative Care Compared With Cisgender General Population Peers," *Journal of Adolescent Health* 66, no. 6 (2020): 669, 703, https://www.sciencedirect.com/science/article/abs/pii/S1054139X20300276.

³⁰ Ibid.

- ³⁷ Annelou L.C. de Vries et al., "Young adult psychological outcome after puberty suppression and gender reassignment," *Pediatrics* 134, no. 4 (2014), https://pubmed.ncbi.nlm.nih.gov/25201798/.
- ³⁸ Michael Biggs, "Puberty Blockers and Suicidality in Adolescents Suffering from Gender Dysphoria," *Archives of Sexual Behavior* 49 (2020): 2227-29, https://link.springer.com/article/10.1007/s10508-020-01743-6.

 ³⁹ Ibid.
- ⁴⁰ Jack L. Turban et al., "Pubertal Suppression for Transgender Youth and Risk of Suicidal Ideation," *Pediatrics* 145, no. 2 (2020), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7073269/.
- ⁴¹ "Standards of Care for the Health of Transexual, Transgender, and Gender-Nonconforming People," World Professional Association for Transgender Health, 7,

https://www.wpath.org/media/cms/Documents/SOC%20v7/SOC%20V7_English 2012.pdf? t=1613669341.

- ⁴² Annelou L.C. de Vries et al., "Young adult psychological outcome after puberty suppression and gender reassignment," *Pediatrics* 134, no. 4 (2014), https://pubmed.ncbi.nlm.nih.gov/25201798/.
- ⁴³ E.g., Madeleine S.C. Wallien and Peggy T. Cohen-Kettenis, "Psychosexual outcome of gender-dysphoric children," *Journal of the American Academy of Child and Adolescent Psychiatry* 47, no. 12 (2008): 1413–23, https://pubmed.ncbi.nlm.nih.gov/18981931/; "A follow-up study of boys with gender identity disorder," Devita Singh Ph.D. Dissertation, University of Toronto, 2012,

http://images.nymag.com/images/2/daily/2016/01/SINGH-DISSERTATION.pdf.

- ⁴⁴ "Evidence review: Gender-affirming hormones for children and adolescents with gender dysphoria," National Institute for Health and Care Excellence; "Evidence review: Gonadotrophin releasing hormone analogues for children and adolescents with gender dysphoria," National Institute for Health and Care Excellence.
- ⁴⁵ French National Academy of Medicine, "Medicine and gender transidentity in children and adolescents," press release, February 25, 2022, https://www.academie-medecine.fr/la-medecine-face-a-la-transidentite-de-genre-chez-les-adolescents/?lang=en.
- ⁴⁶ COHERE Finland, "Medical treatment methods for dysphoria associated with variations in gender identity in minors recommendation," summary of recommendation, June 16, 2020,

³¹ Amicus Brief, Brandt v. Rutledge, at 19.

³² Ibid. It is also worth noting that the study controls for few variables and relies on self-reported data rather than "a diagnosis of any mental health condition made by clinical assessment."

³³ Amicus Brief, Brandt v. Rutledge, at 19.

³⁴ Id.

³⁵ Id.

³⁶ Id, at 19-20.

https://palveluvalikoima.fi/documents/1237350/22895008/Summary_minors_en+(1).pdf/fa2054c5-8c35-8492-59d6-b3de1c00de49/Summary_minors_en+(1).pdf?bcs-agent-scanner=e41c0523-961c-1447-8ec3-c04775b7be1b.

- ⁴⁷ The Royal Australian and New Zealand College of Psychiatrists, "Recognising and addressing the mental health needs of people experiencing Gender Dysphoria/Gender Incongruence," petition statement 103, August 2021, https://www.ranzcp.org/news-policy/policy-and-advocacy/position-statements/gender-dysphoria.
- ⁴⁸ The Swedish National Board of Health and Welfare, "Updated recommendations for hormone therapy for gender dysphoria in young people," press release, February 22, 2022, https://www.socialstyrelsen.se/om-socialstyrelsen/ pressrum/press/uppdaterade-rekommendationer-for-hormonbehandling-vid-konsdysfori-hos-unga/.
- ⁴⁹ "Undergraduate Student Reference Group Data Report," American College Health Association National College Health Assessment, Spring 2021, https://www.acha.org/documents/ncha/NCHA-III_SPRING-2021_UNDERGRADUATE

REFERENCE GROUP DATA REPORT.pdf?bcs-agent-scanner=5ee58b3f-7daf-3e42-9cca-4b4bab71f98c.

- ⁵⁰ Amicus Brief, Brandt v. Rutledge, at 12.
- ⁵¹ Id.
- ⁵² Id.
- ⁵³ Abigail Shrier, "When Your Daughter Defies Biology," *The Wall Street Journal*, January 6, 2019, https://on.wsj.com/

3nlHUKD.

- ⁵⁴ Abigail Shrier, "Top Trans Doctors Blow the Whistle on 'Sloppy' Care," Common Sense, October 4, 2021, https://bariweiss.substack.com/p/top-trans-doctors-blow-the-whistle.
- ⁵⁵ Annelou L.C. de Vries, "Challenges in Timing Puberty Suppression for Gender-Nonconforming Adolescents," *Pediatrics* 146, no. 4 (2020), https://doi.org/10.1542/peds.2020-010611.
- ⁵⁶ Ibid.
- ⁵⁷ Grace Williams, "Dutch puberty-blocker pioneer: Stop 'blindly adopting our research," 4thWaveNow, March 16, 2021, https://bit.ly/3nj6onT.
- 58 Ibid.
- 59 Ibid.
- 60 Amicus Brief, Brandt v. Rutledge.
- ⁶¹ Lisa Littman, "Individuals Treated for Gender Dysphoria with Medical and/or Surgical Transition Who Subsequently Detransitioned: A Survey of 100 Detransitioners," *Archives of Sexual Behavior* 50 (2021): 3353–69, https://link.springer.com/article/10.1007/s10508-021-02163-w.

Appendix B



Diagnosing Gender Dysphoria in Children: An Explainer

by Jennifer Bauwens, Ph.D.

"Gender dysphoria" is a diagnostic category listed in the Diagnostic and Statistical Manual of Mental Disorders (DSM). It was first included as a psychological diagnosis in the DSM-5, which came out in 2013. The DSM-5 has since gone through revisions and was re-released this year.

There has been debate over whether gender dysphoria should be included in the DSM. Some argue that creating a diagnostic category pathologizes those who identify as transgender, and the diagnosis is only necessary in American culture for the purposes of insurance reimbursement for transgender physiological procedures.² In this explainer, the gender dysphoria diagnosis will be described along with the problems with diagnosis and treatment, specifically in children.

Definition of Terms

- *Gender* "refers to the psychological and cultural characteristics associated with biological sex. It is a psychological concept and sociological term, not a biological one."³
- Dysphoria is defined in the dictionary as "a state of dissatisfaction, anxiety, restlessness, or fidgeting."⁴

• Gender dysphoria (GD) is a clinical term used in the DSM to describe children and adults who experience a psychological condition marked by an incongruence between their experienced gender and the gender associated with their biological sex. They often express the belief that they are the opposite sex.⁵

Diagnostic Criteria for Gender Dysphoria

- The gender dysphoria criteria stipulate that a diagnosis can be made after an observation period of just six months.⁶
- Oddly, the observation period for a gender dysphoria diagnosis is the same for both children and adults.
- Once the feelings of incongruence between a child's biological sex and their experience of another gender have been expressed, a diagnosis is made by marking at least six other criteria.
- Strangely enough, a significant portion of these criteria resemble many Western stereotypes and traditional sex roles. For example:
 - Criteria 3. A strong preference for cross-gender roles in make-believe play or fantasy play
 - Criteria 4. A strong preference for toys, games, or activities stereotypically used or engaged in by the other gender
 - **Criteria 5.** A strong preference for playmates of the other gender⁷ (A complete listing of the DSM criteria is cited here.⁸)

Determining Diagnosis for Gender Dysphoria

• There are no physiological tests (*i.e.*, lab work, imaging) to determine the extent of dysphoric symptoms.⁹

- There are no psychological tests to predict who will *regret* transgender procedures.
- There are no psychological tests to predict *how long* gender dysphoria will last.
- There are no psychological tests to predict who will supposedly *benefit* or be *harmed* by transgender procedures.
- There are no standardized measures to assess *etiology* or different root causes of gender dysphoria.
- There are no tests to detect the differences between the mostly biological males who showed up
 for treatment with gender dysphoria decades ago and the current cohort of mostly biological
 women presenting with symptoms.
- There are no psychological tests to differentiate between all the *categories* of transgender experiences (*e.g.*, non-binary, trans-man, trans-woman) and all the aforementioned psychological and physiological tests.
- The only outcome that can be predicted for gender dysphoria is that, in many cases, it will resolve in children if left alone.
- The number of children who *grow out of* their gender dysphoria, the "desistance" rates, range from 70 percent to 97.8 percent in biological males and 50 percent to 88 percent in biological females.¹⁰

Comparing Gender Dysphoria to Other DSM Diagnoses That Account for Maturation

• Accounting for a child's maturation process is generally recognized and upheld in other DSM-5 diagnoses that involve observing a stable pattern of behavior, emotion, and thought over time.¹¹

- When making these diagnoses, the criteria require that the symptoms be present longer in children than for adults. Diagnosis is recommended after 18 years of age. 12
- In rare instances in which diagnosis occurs before 18, symptoms must be observed for one year to determine a stable pattern (unlike gender dysphoria at six months).¹³
- The waiting period for these disorders is related to the widely accepted fact that the brain continues to develop into a person's mid-twenties.¹⁴
- The limbic system in the brain, also known as the seat of our emotions, relates to emotional processing, learning, and memory.
- The limbic system plays a significant role in a person's mental health and takes the longest to reach structural norms. Many people do not reach maturation norms until they are in their twenties.¹⁵

A Good Diagnostic Assessment Involves Ruling Out Other Causes for Gender Dysphoria

- Good practitioners take the time and thoroughly interview a child and primary caregiver(s) to
 rule out other diagnoses and factors that could contribute to the presenting problem. For
 example:
 - It has been well documented that those presenting with gender dysphoria may also experience some of the following issues:
 - Childhood physical, sexual, and emotional abuse and neglect¹⁶
 - Autism¹⁸
 - Influenced by peers and social media sites¹⁹

Treatment Recommendations from the Medical and Psychological Establishment

- When it comes to other diagnoses listed in the DSM, researchers and theorists are encouraged to develop treatment options. Clinicians are encouraged to make their clients aware of the different treatments available and what they themselves can provide, given their training and expertise. For example, if you go for treatment following a traumatic event, you can find a therapist who can offer you cognitive therapy, medication, EMDR, exposure therapy, etc.
- When it comes to the gender dysphoria diagnosis, multiple treatment options are not available to reduce symptoms.
- The only treatment option you will be offered for gender dysphoria is to socially and medically transition.
- This option leads to physiological procedures that will alter and/or remove healthy organs and bodily systems to treat a psychological condition.
- The use of puberty-blocking drugs can lead to a range of health problems in children, including sterilization, reduced bone density, cognitive problems, increased body fat percentage and body mass index, decreased lean body mass, and arterial hypertension.²⁰ ²¹ ²²
- Transgender procedures are the most invasive physiological practices known to treat a psychological condition.
- These procedures have the least amount of scientific evidence to support their use.
- Transgender physiological procedures have been offered with disregard for the six-month observation period noted in the gender dysphoria diagnostic criteria.
- Groups like Planned Parenthood distribute cross-sex hormones at the initial visit, without mental health assessment or parental consent.²³
- There are no federal gatekeeping mechanisms to hold practitioners or providers accountable for misdiagnosis and wrongful distribution of puberty blockers and cross-sex hormones and the

performance of surgical procedures on minors (unless a state has pursued legislation to limit procedures on minors²⁴).

• Treatment should characterize:

- At minimum, a detailed evaluation of the child and their caregiver's psychological histories should be conducted.
- The evaluation should describe how the clinician ruled out other known factors (*e.g.*, trauma, autism, social contagion) that may be responsible for expressions of gender dysphoria.
- o These other factors should be addressed in the treatment plan.
- Researchers and clinicians should be unshackled from the transgender ideology that demands only one treatment option.

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¹ Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition: DSM-5 (Arlington, VA: American Psychiatric Association, 2013), 829.

² Berenice Bento, "The review process of the DSM 5: is gender a cultural or diagnostic category?" *Sociology International Journal* 2, no. 3 (2018): 205-213, accessed July 19, 2021, https://medcraveonline.com/SIJ/the-review-process-of-the-dsm-5-is-gender-a-cultural-or-diagnostic-category.html.

³ "Gender Dysphoria in Children," American College of Pediatricians, November 2018, accessed April 25, 2022, https://acpeds.org/position-statements/gender-dysphoria-in-children.

⁴ "Dysphoria," Dictionary.com, accessed April 21, 2022, https://www.dictionary.com/browse/dysphoria.

⁵ Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition: DSM-5 (Arlington, VA: American Psychiatric Association, 2013), 452.

⁶ Ibid.

⁷ Ibid.

⁸ "What is Gender Dysphoria?" American Psychiatric Association, accessed April 21, 2022, https://www.psychiatry.org/patients-families/gender-dysphoria/what-is-gender-dysphoria.

- ⁹ Michael K. Laidlaw, et al., "Letter to the Editor: 'Endocrine Treatment of Gender-Dysphoric/Gender-Incongruent Persons: An Endocrine Society Clinical Practice Guideline," *Journal of Clinical Endocrinology & Metabolism* 104, no. 3 (2019): 686–87, accessed April 25, 2022, https://academic.oup.com/jcem/article/104/3/686/5198654.
- ¹⁰ Jiska Ristori and Thomas D. Steensma, "Gender dysphoria in childhood," *International Review of Psychiatry* 28, no. 1 (2016): 15, accessed April 25, 2022, https://pubmed.ncbi.nlm.nih.gov/26754056/.
- ¹¹ Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition: DSM-5 (Arlington, VA: American Psychiatric Association, 2013), 647.
- 12 Ibid.
- 13 Ibid.
- ¹⁴ Ajay Nadig, et al., "Morphological integration of the human brain across adolescence and adulthood," *Proceedings of the National Academy of Sciences of the United States of America* 118 (2021), accessed July 20, 2021, https://www.pnas.org/content/118/14/e2023860118.
- 15 Ibid.
- ¹⁶ John R. Blosnich and Judith P. Andersen, "Thursday's child: the role of adverse childhood experiences in explaining mental health disparities among lesbian, gay, and bisexual U.S. adults," *Social Psychiatry and Psychiatric Epidemiology* 50, no. 2 (2015): 335–38, accessed July 20, 2021, https://pubmed.ncbi.nlm.nih.gov/25367679/.
- ¹⁷ Ilan H. Meyer, Bianca D.M. Wilson, and Kathryn O'Neill, "LGBTQ People in the US: Select Findings from the Generations and TransPop Studies," UCLA School of Law Williams Institute, June 2021, https://williamsinstitute.law.ucla.edu/wp-content/uploads/Generations-TransPop-Toplines-Jun-2021.pdf.
- ¹⁸ Derek Glidden, Walter Pierre Bouman, Bethany Jones, Jon Arcelus, "Gender Dysphoria and Autism Spectrum Disorder: A Systematic Review of the Literature," *Sexual Medicine Reviews* 4, no. 1 (2016), accessed April 25, 2022, https://pubmed.ncbi.nlm.nih.gov/27872002/.
- ¹⁹ Lisa Littman, "Parent reports of adolescents and young adults perceived to show signs of rapid onset of gender dysphoria," *PLOS ONE* 14, no. 3 (2019), accessed April 25, 2022, https://doi.org/10.1371/journal.pone.0214157.
- ²⁰ Sara Reardon, "Largest ever study of transgender teenagers set to kick off: Scientists will track psychological and medical outcomes of controversial treatments to help transgender adolescents transition," *Nature*, March 29, 2016, 560, https://www.nature.com/news/largest-ever-study-of-transgender-teenagers-set-to-kick-off-1.19637.
- ²¹ Denise Chew, et al., "Hormonal Treatment in Young People with Gender Dysphoria: A Systematic Review," *Pediatrics* 141(4), published online March 7, 2018, 15-16.
- ²² Kelsey Hayes, "Ethical Implications of Treatment for Gender Dysphoria in Youth," *Online Journal of Health Ethics* 14(2), 9, https://aguila.usm.edu/ojhe/vol14/iss2/3/.
- ²³ "What to Expect on Your First Visit and Beyond," Planned Parenthood Mar Monte, accessed April 22, 2022, https://www.plannedparenthood.org/planned-parenthood-mar-monte/patient-resources/gender-affirming-care/hormone-therapy-first-visit.
- ²⁴ "State Policy Brief: Save Adolescents from Experimentation (SAFE) Act," Family Research Council, April 2022, accessed May 3, 2022, https://www.frc.org/statepolicybrief/save-adolescents-from-experimentation-safe-act.

Appendix C



Do Not Sterilize Children

Why Physiological Gender Transition Procedures for Minors Should Be Prohibited

Edited by Jennifer Bauwens, Ph.D.

Key Points

Radical physiological treatments to treat the psychological condition of gender dysphoria have serious negative side effects, up to and including permanent sterilization. None of these procedures have been shown to improve the patient's mental health.

When left to themselves, most children with such conditions outgrow them and do not identify as "transgender" adults.

These physiological procedures violate the most fundamental principle of medical ethics: "First, do no harm."

Summary

t has long been known that some children suffer from "gender incongruity" (a disconnect between one's psychological, self-perceived "gender identity" and one's biological sex) or "gender dysphoria" (distress about such incongruity). Studies have shown that, when left to themselves, most children with such conditions outgrow them and do not identify as "transgender" adults. However, such conditions and identities are increasingly being embraced and actively affirmed, not only through "social transition" (changing one's public expression of gender identity) but also through radical physiological interventions. These include the use of drugs to block normal puberty, cross-sex hormones, and gender reassignment surgery.

Each of these procedures has serious negative side effects—up to and including permanent

sterilization. Despite claims to the contrary, these procedures are often not reversible, and they are not evidence-based. Research has not shown that these procedures are effective in accomplishing their purpose, which is to improve the patient's mental health. They violate the most fundamental principle of medical ethics: "First, do no harm."

These facts fully justify—in fact, they demand—state and federal legislation to prohibit such procedures from being performed upon minors. The rights of parents who affirm their child's transgender identity are not of a higher value than the public interest in protecting children from physical harm. Economic blackmail should not dissuade legislators from acting on this issue.

Introduction: The James Younger Case

In 2019, the case of James Younger, a boy caught up in a tragic custody battle between his parents, highlighted the dangers "gender transition" poses to children. Many Americans were alarmed that James' mother wanted him to wear girl's clothes, have a girl's name, and eventually take puberty-blocking hormones—even though James' father insisted that he is a perfectly happy 7-year-old boy. Custody of James was eventually awarded to both parents by a Texas judge after a national outcry.

Understanding the Issue

"Sex" vs. "Gender"

The transgender issue has been depicted primarily as one of "discrimination" against a particular group of people because of "who they are." The primary dispute is a philosophical one over what it means to be "male" or "female." For most of human history, it was regarded as self-evident that these terms referred to an individual's biological sex, as defined by their reproductive capacity. The American Psychiatric Association (APA), which is supportive of transgender identities, continues to define the word "sex" in biological terms. Here is the definition that appeared in the most recent (2013) edition of the APA's *Diagnostic and Statistical Manual of Mental Disorders*, or *DSM-5*:

Sex Biological indication of male and female (understood in the context of reproductive capacity), such as sex chromosomes, gonads, sex hormones, and nonambiguous internal and external genitalia.⁴

By these definitions, "sex" is a biological characteristic that is evident at (or, with ultrasound, even before) birth, and one's identity as "male" or "female" is an objective physical reality that is innate and immutable. Family Research Council (FRC) holds firmly to these definitions and this view of "sex."

However, some have sought to undermine it—in part linguistically, by substituting the word "gender" for "sex." Sometimes, "gender" is used as essentially a *synonym* for "sex"—such as when expectant parents have a "gender reveal" party. At other times, however, "gender" is defined in psychological terms (in *contrast* to biological "sex"), based upon a person's subjective self-perception or self-identification as "male" or "female." The core principle of what is called "gender ideology" is that this subjective, psychological self-perception is a *more fundamental and more accurate* determinant of who is "male" or "female" (or something else) than a person's objective, biological sex.⁵

These beliefs are at the heart of the transgender movement. It is virtually impossible to discuss that movement without using "gender" and its derivative terms in this way, so this paper will do so (and without quotation marks). The reader should bear in mind that such usage should not be taken as representing the author's affirmation of that theoretical construct, however.

What Is Gender Incongruence/Gender Dysphoria?

The American College of Pediatricians explains these terms this way:

- *Gender* is a term that refers to the psychological and cultural characteristics associated with biological sex. It is a psychological concept and sociological term, not a biological one.
- Gender identity refers to an individual's awareness of being male or female and is sometimes
 referred to as an individual's "experienced gender."

- *Gender dysphoria (GD)* in children describes a psychological condition in which they experience marked incongruence between their experienced gender and the gender associated with their biological sex. They often express the belief that they are the opposite sex.⁶
- The term *transgender* "refers to the broad spectrum of individuals who identify with a gender other than that associated with their birth sex."

DSM-5 Diagnostic Criteria for Gender Dysphoria in Children

There are a few noteworthy points to make about the gender dysphoria (GD) diagnosis. For one, it should be noted that the formulation of the GD diagnosis has been critiqued as an explication of a cultural phenomenon, most relevant to the United States, to garner insurance reimbursement for transgender medical treatments. The current diagnostic criteria itself was greatly debated for five years leading up to the release of the *DSM-5*, and for good reason. In particular, the criteria comprising the GD diagnosis show a questionable departure from other considerations that are apparent in the *DSM-5* while diagnosing mental health issues for children.

First, GD has been conceptualized as applicable to both children and adults. When diagnosing a child or an adult, the symptoms should be present for six months. Interestingly, the observation period is the same for both children and adults. This is suspect because it is well documented that the brain continues to develop into a persons' mid-twenties. Some of the greatest developmental strides are known to occur within complex neurological structures during adolescence. Specifically, the limbic system, also known as the seat of our emotions, relates to emotional processing, learning, and memory. This important structure plays a significant role in a person's mental health. Structures like the limbic system take the longest to reach structural norms. Many people do not reach these structural norms until they are in their twenties.

This maturation process is generally recognized and upheld in other *DSM-5* diagnoses that are thought to reflect a stable and observable pattern over time. For example, the *DSM-5* contains a cluster of disorders referred to as *personality disorders*. These disorders are characterized by an "enduring pattern of thinking, feeling, and behaving that is relatively stable over time." When diagnosing a personality

disorder, the criteria requires that the symptoms be present longer in children than what is required for adults. Here is the guidance offered in the *DSM-5* in regard to making a diagnosis for children:

Personality disorder categories may be applied with children or adolescents in those relatively unusual instances in which the individual's particular maladaptive personality traits appear to be pervasive, persistent, and unlikely to be limited to a particular developmental stage or another mental disorder.... For a personality disorder to be diagnosed in an individual younger than 18 years, the features must have been present for at least 1 year.¹¹

In contrast, the criteria for GD in children includes an observation of six criteria for a six-month duration. Further, the *DSM-5* tells us that the GD diagnosis requires that one of the six criteria must include a "marked incongruence between one's experienced/expressed gender and assigned gender." The person should also experience "[t]he condition [as] associated with clinically significant distress or impairment in social, school, or other important areas of functioning."¹²

The remaining five criteria necessary for a GD diagnosis arguably give a lot of room for interpretation. Here's an example of some of the criteria used to determine GD:

Criteria 3. A strong preference for cross-gender roles in make-believe play or fantasy play Criteria 4. A strong preference for toys, games, or activities stereotypically used or engaged in by the other gender

Criteria 5. A strong preference for playmates of the other gender¹³

By the standards set in the *DSM-5*, diagnosing personality disorders in children should be rare and observed for a lengthy period. Yet, the interventions for treating personality disorders in children are not as physiologically invasive, nor do they involve the potential for altering or removing healthy organs. However, the interventions outlined throughout the remainder of this paper are potentially lifealtering and, if diagnosed, are preceded by only a six-month awareness of gender dysphoria symptoms. In this way, the gender dysphoria diagnosis in children is not made with the same caution as personality disorders, which are considered indicative of a stable psychological and behavioral pattern.

What Percentage of Children with Gender Dysphoria Go On to Identify As Transgender Adults?

According to the *DSM-5*:

Rates of persistence of gender dysphoria from childhood into adolescence or adulthood vary. In natal males, persistence has ranged from 2.2% to 30%. In natal females, persistence has ranged from 12% to 50%. ¹⁴

Those "persistence" rates are the percentages that *continue* to have gender dysphoria. That means that the number who *grow out of* their gender dysphoria, the "desistance" rates, range from 70 percent to 97.8 percent in biological males and 50 percent to 88 percent in biological females.

In a separate analysis combining the results from 10 studies, two scholars reported in 2016 that "for the majority of the children (85.2%; 270 out of 317) the gender dysphoric feelings remitted around or after puberty," meaning that only 14.8 percent continued to experience such feelings.

No Objective Test for a "True Transgender" Child

As a group of physicians warned in a letter to a medical journal in 2018, "There are no laboratory, imaging, or other objective tests to diagnose a 'true transgender' child." In other words, "There is currently no way to predict who will desist and who will remain dysphoric." ¹⁶

Given the evidence that the majority of children with gender dysphoria do not identify as transgender adults if left to themselves, and the inability to know which will "persist" and which will "desist," it is simply irresponsible for those trained to provide medical care to perform physical interventions, some effects of which are irreversible, that almost always put a child on a path toward a transgender identity.

Invasive Physiological Procedures

Gender Transition

Gender transition is the process whereby a person experiencing gender incongruity changes his or her appearance and self-presentation from being consistent with the individual's biological sex at birth to being more consistent with the individual's preferred psychological gender identity. The first step in such a transition is usually "social" transition, which involves changing one's name, clothing, hairstyle, and public self-identification (as male, female, or something else) and requesting that others affirm this new public identity. Social transition may occur before or in the absence of any interventions that require the aid of people with pharmacological or medical training, such as the use of hormones or surgery.

For the most part, this paper does not address the question of "social" transition—although there are significant concerns about it. Instead, this paper focuses on procedures designed to alter the body's physiology, such as hormones and surgery. When we use the term "gender transition procedures," it will be in reference to these more invasive physiological interventions.

What Physiological Procedures Are Performed on Children/Minors with Gender Dysphoria?

Since at least the 1950s, invasive physiological procedures have been offered to adults wishing to change the appearance of their bodies as part of a gender transition. These include the use of cross-sex hormones (testosterone for females identifying as male, and estrogen for males identifying as female) and gender reassignment surgery. However, only in the last 20 years or so have such interventions begun being offered to minors for this purpose.

One set of scholars described these treatments, first devised in the Netherlands and referred to as "the Dutch protocol," in a 2010 journal article:

Since the mid-1990s, one model of therapeutic care, developed by Dutch clinicians and researchers, has been to initiate the biomedical aspects of sex-reassignment in early- to mid-adolescence rather than to wait for the legal age of adulthood (18 years in many countries) or even later. After careful psychologic evaluation, adolescents deemed appropriate for such treatment are prescribed hormonal medication to delay or suppress somatic puberty (prior to the age of 16 years). If the gender dysphoria persists, then cross-sex hormonal therapy is offered at the age of 16 and, if the adolescent so desires, surgical sex change procedures are then offered at a lower bound age of 18.¹⁷

Puberty Blockers

"Puberty blockers" is a colloquial term for a class of hormones that can prevent a pre-adolescent child from undergoing the physical changes associated with puberty. Originally developed and approved to treat a medical condition known as "precocious puberty," they are now being used as part of a gender transition in some children.

"Central Precocious Puberty"

Some children begin to develop the physical signs of puberty at unusually early ages. If, for example, a girl's breasts begin to develop at the age of six, or a boy begins to grow pubic hair at the age of seven, these may be considered signs of a medical disorder known as "central precocious puberty." Websites on the disorder describe the physiological process:

The brain starts the process [of puberty] with the production of a hormone called gonadotropin-releasing hormone (GnRH).

When this hormone reaches the pituitary gland — a small bean-shaped gland at the base of your brain — it leads to the production of more hormones in the ovaries for females (estrogen) and the testicles for males (testosterone).

. . .

Most commonly, especially in girls, precocious puberty is due to the brain sending signals earlier than it should.¹⁸

This condition can adversely affect children both physically¹⁹ and emotionally.²⁰

In the 1980s, scientists realized that children experiencing precocious puberty could be treated with a class of drugs that effectively neutralize the puberty-stimulating effect of the GnRH. These are known as GnRH analogs or GnRH agonists (GnRHa) but are referred to more colloquially as puberty-blocking hormones, puberty-blocking drugs, or simply "puberty blockers." These drugs can essentially pause the physical changes associated with puberty until the child reaches an age where his or her peers are typically experiencing them. Then the treatment is withdrawn, and normal pubertal development resumes within about a year.²¹

Use of Puberty Blockers for Gender Transition

However, some health care providers are turning the usual (and FDA-approved) use of puberty blockers on its head. Instead of using these drugs to stop *premature* puberty and then withdrawing them at the normal age for puberty to allow normal development to resume, they are using them to *prevent* children who have gender dysphoria from going through puberty at the *normal* age. In other words, instead of *preventing* an abnormal condition in order to *facilitate* normal development, doctors in gender clinics are *creating* an abnormal condition in order to *prevent* normal development.

One journal article explains the rationale for this approach:

... [T]he suspension provides adolescents with GD "time and rest before making definite decisions on gender reassignment without the distress of developing secondary sex characteristics."²²

However, puberty blockers "have potentially serious physical side effects." An article in the journal *Nature* said that "some scientists worry that putting off puberty in older children may disrupt bone and brain development, reducing bone density and leading to cognitive problems." A 2018 article in *Pediatrics* (the official journal of the American Academy of Pediatrics) noted other concerns:

- GnRHas significantly increased both body fat percentage and BMI [body mass index] while decreasing lean body mass . . .
- [P]otential adverse effects such as arterial hypertension . . . [were] reported in a recent case series in association with GnRHas.²⁵

This is not to mention the more obvious fact that puberty blockers "inhibit fertility by preventing the development of gonadal tissue and mature gametes for the duration of treatment."²⁶

No Evidence Puberty Blockers Improve Mental Health

As with all gender transition procedures, the goal is not to improve the patient's physical health but to improve his or her mental health, and especially to ease gender dysphoria (the distress associated with "gender incongruence") itself. However, it is not even clear that the use of puberty blockers achieves this goal, which would be absolutely necessary to justify such a radical and unnatural physical intervention.

One early (2010) study of puberty suppression for gender transition reported, "Gender dysphoria did not resolve as a result of puberty suppression."²⁷ A more recent (2018) study reported that "our psychometric data suggest that . . . the impact [of puberty blockers] on reducing psychological difficulties is limited."²⁸

Are Puberty Blockers "Fully Reversible?"

Critics of the use of puberty blockers for gender transition have warned, "Children and adolescents generally lack the emotional and cognitive maturity needed to consent to a treatment that will have lifelong consequences." Supporters of puberty suppression acknowledge that children and young adolescents are immature but deny that its consequences are necessarily lifelong, claiming, "Puberty suppression is fully reversible and can be discontinued should the adolescent decide not to pursue GR" (gender reassignment).³⁰

The claim of reversibility, however, is based on the use of these drugs in treating central precocious puberty—not gender dysphoria. In a letter to a British medical journal in 2019, three experts noted, "It is surely presumptuous to extrapolate observations from an intervention that suppresses pathologically premature puberty to one that suppresses normal puberty." A group of German scholars noted in 2008 that the claim of reversibility "is true, however, only with respect to its physical effects, not with respect to the irreversible damage it does to the process of psychosexual development." The three British experts (Richards, et al.) said that the use of puberty blockers "leaves a young person in developmental limbo without the benefit of pubertal hormones or secondary sexual characteristics, which would tend to consolidate gender identity." 33

There is no record in the academic literature documenting what happens to a child who goes on puberty blockers at the age of 11 and then discontinues them at 16 or 18. In a key early study of "the first 70 eligible candidates who received puberty suppression between 2000 and 2008" at a pioneering gender identity clinic in Amsterdam, "No adolescent withdrew from puberty suppression, and all started cross-sex hormone treatment, the first step of actual gender reassignment."³⁴

The dramatic contrast between the 85 percent *desistance* rate in prepubertal children with gender dysphoria³⁵ and the reported 100 percent *persistence* rate in those placed on puberty blockers at the onset of puberty³⁶ strongly suggests that, like "gender social transition of prepubertal children," puberty blockers "will increase dramatically the rate of gender dysphoria persistence." Richards, et al. note,

"Our concern is that the use of puberty blockers may prevent some young people with GD from finally becoming comfortable with the birth sex." 38

This is being done despite the lack of any long-term longitudinal studies evaluating the risks and benefits of using these drugs to treat gender dysphoria and gender transition.³⁹

Cross-Sex Hormones

A second step in the invasive physiological gender transition of minors (for those who first took puberty blockers), or a first step for those who have already entered their natural (biological) puberty, is the administration of cross-sex hormones. For example, biological females who wish to present themselves as males are given the male hormone testosterone in order to give them more masculine physical characteristics (such as facial and body hair and deepening of the voice). Meanwhile, biological males who wish to present themselves as female are given the female hormone estrogen in order to give them more feminine characteristics (such as enlarged breasts).⁴⁰

In those who have previously taken puberty blockers, cross-sex hormones may be used as a tool to, in effect, initiate an artificial puberty corresponding to the desired gender identity. In this situation, there may be pressure to start cross-sex hormones at even younger ages so that the child does not remain in an artificial pre-pubescent state while his or her peers are continuing to develop more adult sexual characteristics. Endocrinologist Michael Laidlaw has sharply criticized this approach, however, saying, "There is no such thing as 'trans puberty.' What happens is that [an] abnormal, pathologic state . . . is induced . . ."⁴¹

Risks of Cross-Sex Hormones

The use of cross-sex hormones is associated with a likely or potential increased risk of several serious physical health conditions. Even the pro-transgender World Professional Association for Transgender Health acknowledges this in their "Standards of Care."

Biological males using feminizing hormones (estrogen) are at increased risk for:

- Blood clots
- High triglycerides
- Cardiovascular disease
- High blood pressure
- Diabetes

Biological females using masculinizing hormones (testosterone) are at increased risk for:

- High red blood cells
- High cholesterol
- Cardiovascular disease
- High blood pressure
- Diabetes
- Destabilization of certain psychiatric disorders⁴²

Other side effects have also been reported in recent journal articles. One in *Pediatrics* stated, "Testosterone significantly increased both body fat and BMI" [body mass index]. ⁴³ Another cautioned that "reduction of [natural] sex hormone production in mid-adolescence to late adolescence may well have effects on reducing energy and psychological well-being," and "Alterations in mood, including the development of irritability and anxiety, are risks of this treatment."

Gender Reassignment Surgery

Gender reassignment surgery (GRS)¹ is the least likely of the invasive physiological gender transition procedures to be performed on minors—but unfortunately, the practice is not unheard of.

There are two types of gender reassignment surgery, colloquially referred to as "top" surgery (either removing or fabricating breasts) and "bottom" surgery (either removing or fabricating genitalia).

"Top" (Chest) Surgery

Biological females who have undergone normal puberty but identify as male may experience "chest dysphoria"—distress about having breasts. In a 2018 study, nearly half of the females who had their breasts surgically removed (33 of 68) were under the age of 18, nearly a quarter (16) were under 16, and two were only 13 years old.⁴⁵

"Bottom" (Genital) Surgery

Genital or "bottom" surgery is the least likely procedure to be performed on minors, but even that has sometimes happened. In 2014, a Beverly Hills plastic surgeon (ironically named Gary Alter) boasted in a press release about performing male-to-female gender reassignment surgery on a 16-year-old. However, "the creation of a vagina and clitoris" was complicated by the fact that, thanks to the hormones, the patient "never . . . developed normal penis and scrotum size." ⁴⁶ A more recent journal

¹ Terminology for the surgery that some transgender people undergo to alter their anatomy has changed rapidly through the years. What used to be called "sex change surgery" became "sex reassignment surgery," then "gender reassignment surgery," and more recently "gender affirmation" or "confirmation" surgery. It is preferable not to use the term "sex" or "sex change," because sex is an innate biological condition which cannot be changed. On the other hand, "affirmation" or "confirmation" are used to imply that the transgender identity is the patient's "real" or innate identity, which is being belatedly "affirmed" or "confirmed" by the doctor. This is an ideological construct which FRC does not share. Therefore, "gender reassignment surgery" or "GRS" is being used to indicate that what is changing in a "gender transition" is not a person's (biological) sex, but his or her (social and psychological) "gender" or "gender identity," which is indeed being consciously and deliberately "reassigned" by a surgeon, rather than "affirmed" or "confirmed."

article verified this problem, saying, "Concern now exists that the early blockade of puberty may result in insufficient genital skin being available for this procedure." 47

Perhaps the most famous transgender teenager is reality TV star Jazz Jennings, who underwent genital surgery to turn his penis into an artificial vagina at the age of 17. Jennings was candid about the challenges involved, acknowledging that after taking puberty blockers followed by cross-sex hormones,

I say it's going to be like a patchwork vagina, Franken-vagina . . . There was just an unfortunate event and setback where things did come apart, and there was a complication. I had to come back in for another procedure . . $.^{48}$

Neither the 2014 case touted by press release, nor the celebrity case of Jazz Jennings is extraordinary anymore. A 2017 study (titled "Age is Just a Number") found that a majority of the surgeons surveyed who perform vaginoplasty (11 of 20) acknowledged they have done the procedure on minors. 49

Even apart from the problems created by a lack of genital tissue in patients who have taken puberty blockers, genital gender reassignment surgery is "associated with important complication rates" and "a great number of adverse events." Transsexuals have an increased risk for the development of micturition [urination] disorders after sex reassignment surgery," according to a 2017 article, including urinary problems such as "incontinence, overactive bladder, urinary tract infections and decreased urinary stream." 53

Sterilizing Children

One side effect of physiological gender transition procedures is, in a way, obvious, yet in another way easily overlooked. Since such procedures involve deliberately disrupting sex-related functions involved in reproduction, infertility—the inability to conceive and/or bear biological children—is an obvious side effect of those procedures in many cases.

Effect of Cross-Sex Hormones on Fertility

Young people who have already undergone natural puberty before beginning a gender transition will generally be rendered infertile, at least temporarily, by administering cross-sex hormones, which inhibit ovulation in biological females and the production of sperm in biological males. To preserve fertility, individuals may gather sperm or eggs before beginning hormone treatments, and these can be frozen and then used later in artificial reproductive procedures. (Gathering eggs is a much more difficult, invasive, and expensive procedure than gathering sperm.⁵⁴)

Alternatively, transgender individuals on hormone therapy can stop taking hormones when they decide to have children, and after a period of time, their fertility may return—although experts warn that "thresholds for amount and duration of exogenous [cross-sex] hormone exposure causing permanent negative effects on fertility have not been established."⁵⁵ However, a transgender person adopting this route must be willing to forgo for a period of time the feminizing or masculinizing effects that were sought from hormones in the first place.

Effect of Puberty Blockers Followed by Cross-Sex Hormones on Fertility

However, a young person who has taken puberty blockers will have prevented the development of the reproductive system to the point where viable sperm or eggs are produced in the first place. Therefore, a course of puberty blockers followed by cross-sex hormones is highly likely to result in permanent sterility and make the preservation of fertility impossible.

As noted above, claims that either puberty blockers or cross-sex hormones alone are "fully reversible" are questionable. The application of both amounts to what some have called "chemical castration." But the impact of genital gender reassignment surgery is indisputable—even the Endocrine Society, in their pro-transgender Guidelines, concedes, "Surgery that affects fertility is irreversible." 57

Sterilization of Children Is Unethical

Infertility should be viewed as a serious medical problem. As one survey of the topic summarized:

Research demonstrates a negative psychosocial impact of infertility among otherwise healthy adults, and distress among adolescents facing the prospect of future infertility due to various medical conditions and treatments that impair reproductive health.⁵⁸

Any procedure causing infertility in *minors* should be viewed as a serious ethical problem as well, as noted by Kelsey Hayes in the *Online Journal of Health Ethics*:

Sterilization of humans without medically acceptable and sound justification, is ethically and morally wrong. When an individual is sterilized, even as a secondary outcome of therapy, lacking full, free, and informed consent, it is a violation of international law.⁵⁹

Experimenting on Children: The Myth of "Evidence-Based" Care

One of the arguments raised by opponents is that these procedures should not be restricted because they represent a standard of care that is "evidence-based." "Evidence-based" is something of a buzzword in medicine, indicating that medical practices should not just be based on opinion (even "expert" opinion), but on sound scientific research.

The Quality of the Evidence Is Low

But just how good is the "evidence" cited in support of gender transition procedures—especially for minors?

One of the most recent and influential sets of guidelines for procedures to be offered to transgender people was published in 2017 by the Endocrine Society.⁶¹ This document explicitly sought to adopt an "evidence-based" approach.⁶²

The key question is—what is the *quality* of the evidence in support of the Endocrine Society's guidelines? They set forth three types of guidelines:

- an "Ungraded Good Practice Statement"—essentially supported by *no* evidence (beginning "We advise . . .");
- a "weak recommendation" (beginning "We suggest . . . "); and
- a "strong recommendation" (beginning "We recommend . . .").

Only with the *strong* recommendations does the task force express "confidence that persons who receive care according to [them] . . . will derive, on average, more benefit than harm."

Then, for each of the "recommendations" (weak or strong), they give a rating of the "quality of the evidence" in support of that recommendation on a four-point scale: very low, low, moderate, or high.

There are 24 guidelines that are generally relevant to the procedures at issue in Vulnerable Child Protection Acts—puberty blockers, hormones for adolescents, and surgery.

Of these 24 guidelines:

- Five are ungraded good practice statements (*no* evidence);
- Two are weak recommendations with very low evidence; and
- Nine are weak recommendations with low evidence.

That means only eight of the 24 "guidelines" are even "strong" recommendations—one-third of the total. Of those:

- Two are supported by *very low* evidence;
- Five are supported by *low* evidence;
- *Only one* is supported by even "moderate" evidence;
- *None* are supported by "high quality" evidence.

In summary, the claim that these treatments are "evidence-based" is misleading because the quality of the evidence in this field (even for the Endocrine Society's "strong" recommendations) is low.

Without higher-quality evidence of both their efficacy and their safety, gender transition procedures must be considered *experimental* procedures at best.⁶³

No FDA Approval

The U.S. Food and Drug Administration (FDA) is the federal agency charged with certifying that medications are safe and effective for their intended use. Given the sweeping claims that puberty blockers and cross-sex hormones represent a well-established "standard of care," and the claims (misleading, as we have seen) that these treatments are "evidence-based," it might surprise some readers to learn that the FDA has *never* approved puberty blockers and cross-sex hormones for the purpose of gender transition.

Off-label use of drugs is not illegal—in fact, it is fairly common.⁶⁴ However, the "off-label" use of a drug means that it has not been scientifically proven to be safe and effective for that particular condition.⁶⁵

Indeed, if you look closely, advocates of gender transition procedures do not even try to deny this. A 2018 article in the journal *Transgender Health* reiterated that "there are no medications or other treatments that are FDA-approved for the purpose of gender affirmation." And the American Medical Association's Council on Science and Public Health reported that "steroidal hormones,"

"GnRH analogs" (puberty blockers), and "antiandrogens" are all used "off-label" for "gender reaffirming therapy"—because their use "lacks scientific evidence." ⁶⁷

Carl Heneghan, Professor of Evidence-Based Medicine at the University of Oxford and Editor in Chief of the *British Medical Journal*'s Evidence-Based Medicine, concluded in 2019 that:

treatments for under 18 gender dysphoric children and adolescents remain largely experimental. There are a large number of unanswered questions that include the age at start, reversibility; adverse events, long term effects on mental health, quality of life, bone mineral density, osteoporosis in later life and cognition. We wonder whether off label use is appropriate and justified for drugs such as spironolactone [an antiandrogen drug used with estrogen⁶⁸] which can cause substantial harms and even death. We are also ignorant of the long-term safety profiles of the different GAH [Gender Affirming Hormone] regimens. The current evidence base does not support informed decision making and safe practice in children.⁶⁹

Do Gender Transition Procedures Prevent Suicide?

Transgender activists often argue that minors must be allowed to undergo gender transition procedures because they will be at higher risk of suicide if they do not undergo them. Author Sahar Sadjadi described this narrative in an article in the *Journal of Medical Humanities*:

[A] core argument for puberty suppression is frequently repeated by numerous clinicians and advocates of the treatment: preventing the body from developing unwanted secondary sex characteristics saves children from violence, suicide, self-harm, and mental illness at the onset of puberty . . . and from violence and discrimination (and in some accounts, unemployment, drug use, prostitution, suicide) which besets . . . transgender adulthood.⁷⁰

There is some evidence that people who identify as transgender, including youth, are more likely to engage in suicidal behaviors than those who do not identify as transgender. One example is the 2015

U.S. Transgender Survey published by the National Center for Transgender Equality. It reported that among the transgender population:

- 40 percent have attempted suicide *in their lifetime*—nearly nine times the rate in the U.S. population (4.6 percent).
- Seven percent attempted suicide *in the past year*—nearly 12 times the rate in the U.S. population (0.6 percent).⁷¹

Data like that from the U.S. National Transgender Survey are based on a "convenience sample," meaning people who volunteer online to participate. This method does not necessarily produce a representative sample of the population under study. Hacsi Horvath, an epidemiologist who "detransitioned" (that is, reclaimed his biological identity after having identified as transgender), points to the California Health Interview Survey, which used more scientific methods. This survey of adolescents did not explicitly ask respondents whether they identified as transgender, but it did identify a population who were "highly gender non-conforming," which may be taken as a proxy for transgender status. Within this population, only three percent of girls and two percent of boys reported having attempted suicide.⁷²

Nonetheless, experts on suicide in general report, "Untreated mental illness (including depression, bipolar disorder, schizophrenia, and others) is the cause for the vast majority of suicides," noting, "Over 90 percent of people who die by suicide have a mental illness at the time of their death."⁷³ Further, in both national and international studies, substance abuse and mood disorders continually have the largest associations with completed suicides. ⁷⁴ ⁷⁵ Trauma-related experiences have also been found to be significant risk factors for suicide. A systematic review of the suicide literature showed estimates of suicidality around 20 percent for adults, with increased rates of suicidality among the adolescent population who had experienced traumatic event(s). ⁷⁶ Additionally, comorbidities (*e.g.*, depression, substance abuse) are common among those who experienced traumatic events and subsequently suffer from posttraumatic stress disorder.

Importantly, despite the years of empirical study, there is no clear understanding of etiology in the suicide literature. In other words, there is no clear understanding of the individual and combined risks that cause a person to commit suicide.⁷⁷ When trying to understand the increased suicide rates in the transgender identifying population, which is a fairly new subject of scientific inquiry, "discrimination" is repeatedly and curiously given as the primary cause for elevated suicide rates. It is essential to note the other increased risk factors for suicide that have been cited in the transgender identifying population, namely a significantly greater incidence of adverse childhood experiences (ACEs).⁷⁸ A recent study showed 45 percent of transgender identifying people reported childhood sexual abuse.⁷⁹ There are also reports of higher rates of substance abuse than those in the general population.⁸⁰ These are just a few examples of known risk factors in the suicide literature, which might better account for the elevated suicide rate in the transgender identifying population. Undoubtedly more research is needed to understand both etiology and suicide among the GD population.

Analyzing Key Suicide Studies

Another problem with the reports on transgender suicide rates is that the statistics are cited as though they provide evidence that gender transition procedures are the *solution* to the problem of transgender suicide. However, these studies often do not indicate *when* the suicidal thoughts or actions occurred—before or after gender transition.

For example, a 2020 article in the journal *Pediatrics* examined the link between taking puberty-blocking hormones and nine different mental health outcomes. ⁸¹ Only one finding received most of the media attention because it was the only one that reached the technical benchmark of "statistical significance." This was a finding that those who received puberty blockers had lower "lifetime suicidal ideation" (that is, thoughts about suicide) than those who wanted them but did not receive them. But it was impossible to conclude that the administration of puberty blockers *caused* a reduction in suicidal thoughts. And another finding was more dramatic (though not "statistically significant"). In the study, those who received puberty blockers were *twice as likely to have had a suicide attempt resulting in inpatient care (i.e.*, *hospitalization) in the last 12 months* as those who did not (45.5 percent vs. 22.8 percent). ⁸²

Perhaps the most dramatic evidence undermining the theory that gender transition reduces suicide comes from a Swedish study published in 2011. The authors examined the medical records of *every* person in Sweden who underwent gender reassignment surgery over a 30-year period. The study found a number of physical and mental health problems were elevated among this population. Most shocking of all, however, was the rate of completed suicides—which was over *19 times higher* than in the general Swedish population.⁸³

A comprehensive review of the literature on the subject by the U.S. Centers for Medicare & Medicaid Services declared about the Swedish study that "we cannot exclude therapeutic interventions as a cause of the observed excess morbidity and mortality." In other words, not only does gender reassignment surgery (and other "therapeutic interventions" such as hormone therapy) not demonstrably benefit those who identify as transgender (including by reducing their risk of suicide)—it may actively harm them and increase their risk of suicide.

Legislative Response

Because of concerns like those described in this paper, bills to prohibit gender transition procedures on minors have been introduced in a number of states, with the first one becoming law in Arkansas in 2021.85

Although transgender activists who support invasive physiological gender transition procedures for minors will obviously oppose such legislation, two issues have been raised in an effort to persuade even conservatives that they should be wary of these bills. These are described below.

Parental Rights

Some critics have raised the question of whether restricting gender transition procedures for minors would not violate another principle usually endorsed by the pro-family movement—that of "parental

rights" to control the upbringing and care of their children. These bills would indeed prohibit these procedures, even if the child's parents consent to them. However, the law has never recognized "parental rights" as a justification for actions that endanger a child's physical health and safety.

The most obvious example is laws that prohibit child abuse. If a parent or any other person commits physical acts upon a child that inflict such harm that the child requires medical care, we normally consider that a crime. Indeed, many concerned observers, including the American College of Pediatricians, ⁸⁶ have declared that gender transition for minors is a form of "child abuse."

However, there are less dramatic areas in which we also impose health and safety protections for children which may override "parental rights." Parents may not choose to transport their young children in an automobile without using a car seat or seat belts. We do not permit parents to supply their young children with alcohol, cigarettes, or illicit drugs.

The proposed bills are actually quite modest in scope. They do not interfere with parents' right to control the *moral* or *social* upbringing of their children. Parents of a child with gender dysphoria would remain completely free to change the child's name, wardrobe, hairstyle, and other forms of "gender expression" if they believe that is in the child's best interest—even though others may vigorously disagree. They remain free to request that schools and other institutions recognize the child in his or her preferred "gender identity" rather than biological sex.⁸⁷

These laws limit only *physical* interventions which disrupt or interfere with normal physical development and/or that radically alter the child's natural anatomy. ⁸⁸ As noted above, such uses of drugs have *not* been approved by the Food and Drug Administration, and such surgeries have *not* been proven by high-quality scientific evidence to be safe and effective even for their intended purpose (to relieve gender dysphoria), let alone to justify such radical interference with nature.

Restricting such dangerous procedures is fully within the legitimate power of each state to regulate the practice of medicine.

Claims of Economic Harm

Economic blackmail has been increasingly used, rather than persuasion on the merits, to get state and local legislators to bow to their will on public policy issues. This tactic was used in South Dakota to resist H.B. 1057, which would have protected vulnerable children from the severe physical damage caused by certain "gender transition" procedures. ⁸⁹ California banned official state travel to Iowa after that state passed modest legislation in 2019 prohibiting Medicaid coverage of gender transition procedures. ⁹⁰

A classic example of the use of this tactic, however, was the attacks upon North Carolina after the passage of HB 2, the so-called "bathroom privacy bill," in March of 2016. This bill merely required that in state-owned buildings, sex-separated restrooms and changing facilities (such as school locker rooms and showers) should be used by people whose biological sex corresponds to the designation on the restroom or facility.⁹¹

Dire warnings were given of economic calamity for the state, and they succeeded in coercing some large sports entities such as the National Basketball Association (NBA)⁹² and the National Collegiate Athletic Association (NCAA)⁹³ to withdraw or refrain from placing some specific events at North Carolina venues. In addition, some corporations such as PayPal and Deutsche Bank announced (or claimed) that they were calling off planned expansions in the state.⁹⁴

Such pressure led North Carolina to repeal the original version of HB 2 a year after it was enacted, in March 2017, replacing it with a "compromise." ⁹⁵

However, even during the year that the original HB 2 was in effect, the economic impact on North Carolina was minimal. A study reported in April 2017 found, "The loss of business, concerts and sporting events represented just 6/100ths of 1 percent of the state's nearly \$500 billion annual economy." John Connaughton, professor of financial economics at the University of North Carolina-Charlotte, said the figure was so negligible as to amount to a "rounding error." ⁹⁶

In fact, in February 2017—when the original HB 2 had been in effect for almost a year—the biggest economic issue facing state officials was what to do with a \$552 million budget *surplus*. ⁹⁷

When one business group gave Texas warnings of economic doom if they adopted similar legislation, even *Politifact* did an analysis and found the claims "Mostly False." ⁹⁸

Conclusion

Family Research Council has grave concerns about even a social gender transition for minors. Kenneth Zucker, perhaps the world's leading expert on gender identity in children, has said:

I would argue that parents who support, implement, or encourage a gender social transition (and clinicians who recommend one) are implementing a psychosocial treatment that will increase the odds of long-term persistence.⁹⁹

Proposed legislation like that described above is actually modest in scope, in that it would place no restrictions upon the ability of minors who are supported by their parents to undertake a social transition or request that others recognize and affirm such a transition. (Of course, the response of other institutions, such as schools, to such a request must take into account not only the wishes of the transgender-identified child but the well-being of other students as well.)

However, the implementation of invasive physiological gender transition procedures—puberty blockers, cross-sex hormones, and/or gender reassignment surgery—upon minors raises additional grave concerns. The interference with natural biological functions, the serious potential side effects, and the often-irreversible nature of the physical changes made mean that a high bar would have to be reached to justify them.

There is no convincing evidence that these procedures improve mental health in the long run, which means that bar has not been met. And minors are certainly not capable of the kind of long-term evaluation of risks and benefits that would allow them to give "informed consent" for such procedures.

Invasive physiological gender transition procedures for minors should be prohibited by law.

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¹ Madeleine Kearns, "The Tragedy of the 'Trans' Child," *National Review*, November 21, 2019, accessed October 16, 2020, https://www.nationalreview.com/magazine/2019/12/09/the-tragedy-of-the-trans-child/.

² Sarah Taylor, "Victory: New judge affirms that mom of 7-year-old 'trans' child James Younger will not be able to give son puberty-blocking hormones without his father's consent," *The Blaze*, January 31, 2020, accessed October 16, 2020, https://www.theblaze.com/news/victory-judge-rules-that-texas-mom-cannot-transition-7-year-old-james-younger.

³ An outstanding explanation of this philosophical debate can be found in: Nancy R. Pearcey, *Love Thy Body: Answering Hard Questions about Life and Sexuality* (Grand Rapids, Mich.: Baker Books, 2018). Chapter 6 (pp. 193-227) addresses the transgender issue.

⁴ Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition: DSM-5 (Arlington, VA: American Psychiatric Association, 2013), 829.

⁵ "[W]hen a person senses a dissonance between body and mind, the mind wins. The body is dismissed as irrelevant." Pearcey (2018), p. 195.

⁶ American College of Pediatricians, *Gender Dysphoria in Children*, November 2018, accessed October 16, 2020, https://www.acpeds.org/the-college-speaks/position-statements/gender-dysphoria-in-children.

⁷ Gary Butler, Nastasja De Graaf, Bernadette Wren, Polly Carmichael, "Assessment and support of children and adolescents with gender dysphoria," *Archives of Disease in Childhood* 103, No. 7 (July 2018), 632.

⁸ Berenice Bento, "The review process of the DSM 5: is gender a cultural or diagnostic category?" *Sociology International Journal* 2, no. 3 (2018): 205-213, accessed July 19, 2021, https://medcraveonline.com/SIJ/the-review-process-of-the-dsm-5-is-gender-a-cultural-or-diagnostic-category.html.

- ¹⁶ Michael K. Laidlaw, et al., "Letter to the Editor: 'Endocrine Treatment of Gender-Dysphoric/Gender-Incongruent Persons: An Endocrine Society* Clinical Practice Guideline," *Journal of Clinical Endocrinology & Metabolism*, published online November 23, 2018.
- ¹⁷ Kenneth J. Zucker, Susan J. Bradley, Allison Owen-Anderson, Devita Singh, Ray Blanchard, Jerald Bain, "Puberty-Blocking Hormonal Therapy for Adolescents with Gender Identity Disorder: A Descriptive Clinical Study," *Journal of Gay* & Lesbian Mental Health, 15:1 (2011), 59.
- ¹⁸ Tal Grunwald, MD, reviewer, "Precocious Puberty," *KidsHealth from Nemours*, September 2019, accessed October 16, 2020, https://kidshealth.org/en/parents/precocious.html.
- ¹⁹ Elizabeth Boskey, PhD, "Stop Precocious Puberty With Puberty Blockers," Medically reviewed by Susan Olender, MD, *Verywell Health*, January 11, 2020, accessed October 16, 2020,

https://www.vervwellhealth.com/stopping-precocious-puberty-with-puberty-blockers-4135230?print.

- ²² Guido Giovanardi, "Buying time or arresting development? The dilemma of administering hormone blockers in trans children and adolescents," *Porto Biomedical Journal* 2(5), published online July 5, 2017, 154.
- ²³ Dominic Wilkinson and Julian Savulescu, "Puberty-blocking drugs: the difficulties of conducting ethical research," *The Conversation*, July 25, 2019, accessed October 16, 2020,

https://theconversation.com/puberty-blocking-drugs-the-difficulties-of-conducting-ethical-research-120906.

- ²⁴ Sara Reardon, "Largest ever study of transgender teenagers set to kick off: Scientists will track psychological and medical outcomes of controversial treatments to help transgender adolescents transition," *Nature*, March 29, 2016, 560, https://www.nature.com/news/largest-ever-study-of-transgender-teenagers-set-to-kick-off-1.19637.
- ²⁵ Denise Chew, et al., "Hormonal Treatment in Young People with Gender Dysphoria: A Systematic Review," *Pediatrics* 141(4), published online March 7, 2018, 15-16.

⁹ Ajay Nadig, et al., "Morphological integration of the human brain across adolescence and adulthood," *Proceedings of the National Academy of Sciences of the United States of America* 118 (2021), accessed July 20, 2021, https://www.pnas.org/content/118/14/e2023860118.

¹⁰ Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition: DSM-5 (Arlington, VA: American Psychiatric Association, 2013), 647.

¹¹ Ibid., 647.

¹² Ibid., 452.

¹³ Ibid.

¹⁴ Ibid., 455.

¹⁵ Jiska Ristori and Thomas D. Steensma, "Gender dysphoria in childhood," *International Review of Psychiatry* 28:1, published online January 12, 2016, 15.

²⁰ Grunwald, "Precocious Puberty," KidsHealth from Nemours.

²¹ Paul W. Hruz, Lawrence S. Mayer, and Paul R. McHugh, "Growing Pains: Problems with Puberty Suppression in Treating Gender Dysphoria," *The New Atlantis*, Spring 2017, 11, accessed October 16, 2020, https://www.thenewatlantis.com/publications/growing-pains.

https://transcare.ucsf.edu/sites/transcare.ucsf.edu/files/Transgender-PGACG-6-17-16.pdf.

²⁶ Kelsey Hayes, "Ethical Implications of Treatment for Gender Dysphoria in Youth," Online Journal of Health Ethics 14(2),

^{9,} https://aquila.usm.edu/ojhe/vol14/iss2/3/.

²⁷ Annelou L.C. de Vries, et al., "Puberty Suppression in Adolescents With Gender Identity Disorder: A Prospective Follow-Up Study," *Journal of Sexual Medicine* 8(8), August 2011, 2282.

²⁸ Gary Butler, et al., "Assessment and support of children and adolescents with gender dysphoria," *Archives of Disease in Childhood* 103(7), 635.

²⁹ Alexander Korte, et al., "Gender Identity Disorders in Childhood and Adolescence," *Deutsches Ärzteblatt International* 105(48), 2008, 839.

³⁰ de Vries, et al., 2277.

³¹ Christopher Richards, Julie Maxwell, Noel McCune, "Use of puberty blockers for gender dysphoria: a momentous step in the dark," *Archives of Disease in Childhood* 104, published online January 17, 2019, 611.

³² Korte, et al., 839.

³³ Richards, et al., 611.

³⁴ de Vries, et al., 2276.

³⁵ Ristori and Steensma, 15.

³⁶ de Vries, et al., 2276.

³⁷ Kenneth J. Zucker, "Debate: Different strokes for different folks," *Child and Adolescent Mental Health* 25(1), published online May 31, 2019, 36.

³⁸ Richards, et al., 611.

³⁹ See World Professional Association for Transgender Health, Standards of Care for the Health of Transsexual, Transgender, and Gender-Nonconforming People (WPATH, 2012), p. 20 (explaining that bone development and height may be negatively affected by the use of GnRH analogues in children); Sarah Reardon, Transgender Youth Study Kicks Off, 531 Nature 560, March 2016 ("But some scientists worry that putting off puberty in older children may disrupt bone and brain development, reducing bone density and leading to cognitive problems"); Richards C, Maxwell J, McCune N. Use of puberty blockers for gender dysphoria: a momentous step in the dark. Archives of Disease in Childhood 2019;104:611-612; Zucker, K. J. (2019), Debate: Different strokes for different folks. Child Adolesc Ment Health. doi:10.1111/camh.12330.

⁴⁰ Madeline B. Deutsch, editor, *Guidelines for the Primary and Gender-Affirming Care of Transgender and Gender Nonbinary People*, 2nd Edition (San Francisco: Center of Excellence for Transgender Health, Department of Family & Community Medicine, University of California, San Francisco), June 17, 2016,

⁴¹ Michael Laidlaw, MD, "The Gender Identity Phantom," Pediatric and Adolescent Gender Dysphoria Working Group Blog, October 24, 2018, accessed October 16, 2020, http://gdworkinggroup.org/2018/10/24/the-gender-identity-phantom/.

⁴² Eli Coleman, et al., "Table 2: Risks Associated with Hormone Therapy," *Standards of Care for the Health of Transsexual*, *Transgender, and Gender-Nonconforming People*, 7th Version (World Professional Association for Transgender Health, 2012), 40, https://www.wpath.org/media/cms/Documents/SOC%20v7/SOC%20V7_English.pdf.

https://abcnews.go.com/Health/transgender-teen-jazz-star-jazz-jennings-sharing-final/story?id=58513271

- ⁴⁹ Christine Milrod, PhD and Dan H. Karasic, MD, "Age Is Just a Number: WPATH-Affiliated Surgeons' Experiences and Attitudes Toward Vaginoplasty in Transgender Females Under 18 Years of Age in the United States," *Journal of Sexual Medicine* Volume 14, Issue 4 (April 2017), Table 1, 626, https://www.transgendercounseling.com/temp/wp-content/uploads/2018/09/Milrod-Karasic-2017-FINAL.pdf.
- ⁵⁰ R. Rossi Neto, F. Hintz, S. Krege, H. Rübben, F. vom Dorp, "Gender reassignment surgery a 13 year review of surgical outcomes," *International Brazilian Journal of Urology* Vol. 38 (1), January February, 2012, 106, https://www.scielo.br/pdf/ibju/v38n1/a14v38n1.pdf.

⁴³ Denise Chew, et al., "Hormonal Treatment in Young People With Gender Dysphoria: A Systematic Review," *Pediatrics* 141(4), April 2018, https://pediatrics.aappublications.org/content/pediatrics/141/4/e20173742.full.pdf.

⁴⁴ Butler, et al., 634-635.

⁴⁵ Johanna Olson-Kennedy, et al., "Chest Reconstruction and Chest Dysphoria in Transmasculine Minors and Young Adults: Comparisons of Nonsurgical and Postsurgical Cohorts," *JAMA Pediatrics* 172(5), published online March 5, 2018, 434, https://jamanetwork.com/journals/jamapediatrics/fullarticle/2674039.

⁴⁶ "Beverly Hills Plastic Surgeon, Gary Alter, MD, Performs Gender Reassignment Surgery on Youngest Transsexual Patient in the United States," *PRWeb*, September 5, 2014, accessed October 16, 2020, http://www.prweb.com/releases/2014/09/prweb12141694.htm.

⁴⁷ Butler, et al., 635.

⁴⁸ Katie Muldowney, et al., "Transgender teen and 'I Am Jazz' star Jazz Jennings on sharing the final steps of her transition journey: her gender confirmation surgery," ABC News, October 15, 2018, accessed October 16, 2020,

⁵¹ Rossi Neto, et al., 97.

⁵² Nina Combaz and Annette Kuhn, "Long-Term Urogynecological Complications after Sex Reassignment Surgery in Transsexual Patients: a Retrospective Study of 44 Patients and Diagnostic Algorithm Proposal," *American Journal of Urology Research* Volume 2 Issue 2, September 15, 2017, 39, https://www.scireslit.com/Urology/AJUR-ID21.pdf.
53 Ibid., 42.

⁵⁴ Diane Chen, et al., "Fertility Preservation for Transgender Adolescents," *Journal of Adolescent Health* 61 (2017), 121, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5604229/pdf/nihms904183.pdf.

⁵⁵ Ibid., 120-121.

⁵⁶ American College of Pediatricians, "Chemical Castration – Not the Best for Children," press release, October 27, 2011, https://www.acpeds.org/chemical-castration-not-the-best-for-children.

⁵⁷ W. Hembree, P. Cohen-Kettenis, et al., "Endocrine Treatment of Gender-Dysphoric/Gender-Incongruent Persons: An Endocrine Society Clinical Practice Guideline," *Journal of Clinical Endocrinology & Metabolism* 102(11), November 2017, 3893, https://academic.oup.com/jcem/article/102/11/3869/4157558.

⁵⁸ Leena Nahata, et al., "Low Fertility Preservation Utilization Among Transgender Youth," *Journal of Adolescent Health* 61(1), July 1, 2017, 40, https://www.jahonline.org/article/S1054-139X(16)30958-2/fulltext.

⁵⁹ Kelsey Hayes, "Ethical Implications of Treatment for Gender Dysphoria in Youth," Online Journal

of Health Ethics 14(2), 2018, 8, https://aquila.usm.edu/ojhe/vol14/iss2/3/.

- ⁶⁰ "Evidence-based medicine," Wikipedia, accessed October 16, 2020, https://en.wikipedia.org/wiki/Evidence-based medicine.
- ⁶¹ Hembree, et al., 3869-3903.
- ⁶² Ibid., 3872.
- ⁶³ For a more detailed analysis of the Endocrine Society guidelines, see: Peter Sprigg, "The Evidence Suggests Gender Transition Procedures for Minors are Experimental," FRC Blog, February 13, 2020, accessed October 16, 2020, https://www.frcblog.com/2020/02/evidence-suggests-gender-transition-procedures-minors-are-experimental/.
- ⁶⁴ Kelli Miller, "Off-Label Drug Use: What You Need to Know," WebMD, accessed May 8, 2020, https://www.webmd.com/a-to-z-guides/features/off-label-drug-use-what-you-need-to-know#1.
- ⁶⁵ See also: Peter Sprigg, "Off-Label Use of Drugs Are Fine for Gender Transitions, but Not for Coronavirus, Say Liberals," FRC Blog, March 31, 2020, accessed October 16, 2020,

https://www.frcblog.com/2020/03/-label-use-drugs-are-fine-gender-transitions-not-coronavirus-say-liberals/.

- ⁶⁶ Sophia Geffen, et al., "Advocacy for Gender Affirming Care: Learning from the Injectable Estrogen Shortage," *Transgender Health* Vol 3(1), 2018, 43, https://www.liebertpub.com/doi/pdfplus/10.1089/trgh.2017.0025.
- ⁶⁷ Council on Science and Public Health, American Medical Association, "Hormone Therapies: Off-Label Uses and Unapproved Formulations," 2016, Table 1, p. 21,

https://www.ama-assn.org/sites/ama-assn.org/files/corp/media-browser/2016-interim-csaph-report-4.pdf.

- ⁶⁸ Madeline B. Deutsch, MD, MPH, "Overview of feminizing hormone therapy," UCSF Transgender Care, June 17, 2016, accessed October 16, 2020, https://transcare.ucsf.edu/guidelines/feminizing-hormone-therapy.
- ⁶⁹ Carl Heneghan and Tom Jefferson, "Gender-affirming hormone in children and adolescents," BMJ EBM Spotlight Blog, February 25, 2019, accessed October 16, 2020, https://blogs.bmj.com/bmjebmspotlight/2019/02/25/gender-affirming-hormone-in-children-and-adolescents-evidence-review/.
- ⁷⁰ Sahar Sadjadi, "The Endocrinologist's Office—Puberty Suppression: Saving Children from a Natural Disaster?" *Journal of Medical Humanities* 34, March 14, 2013, https://considerations.neocities.org/Sadjadi-2013.pdf.
- ⁷¹ Sandy E. James, et al., *The Report of the 2015 U.S. Transgender Survey* (Washington, DC: National Center for Transgender Equality, December 2016), https://transequality.org/sites/default/files/docs/usts/USTS-Executive-Summary-Dec17.pdf.
- ⁷² Bianca D.M. Wilson, et al., "Characteristics and Mental Health of Gender Nonconforming Adolescents in California," *Health Policy Fact Sheet*, UCLA Center for Health Policy Research and The Williams Institute, December 2017, https://williamsinstitute.law.ucla.edu/publications/gnc-youth-ca/.
- ⁷³ Kevin Caruso, "Suicide Causes," Suicide.org, accessed October 16, 2020, http://www.suicide.org/suicide-causes.html.
- ⁷⁴ Marie L. D. Østergaard, Merete Nordentoft, and Carsten Hjorthøj, "Associations between substance use disorders and suicide or suicide attempts in people with mental illness: a Danish nation-wide, prospective, register-based study of patients diagnosed with schizophrenia, bipolar disorder, unipolar depression or personality disorder," *Addiction* 112, no. 7 (2017): 1250-1259, accessed July 20, 2021, https://onlinelibrary.wiley.com/doi/abs/10.1111/add.13788.

⁷⁵ Silke Bachmann, "Epidemiology of Suicide and the Psychiatric Perspective," *International Journal of Environmental Research and Public Health* 15, no. 7 (2018): 1425, accessed July 20, 2021,

https://www.researchgate.net/publication/326240073 Epidemiology of Suicide and the Psychiatric Perspective.

76 Ibid.

- ⁷⁷ Christine B. Cha, et al., "Annual Research Review: Suicide among youth epidemiology, (potential) etiology, and treatment," *Journal of Child Psychology and Psychiatry* 59, no. 4 (2018): 460-482, accessed July 20, 2021, https://pubmed.ncbi.nlm.nih.gov/29090457/.
- ⁷⁸ John R. Blosnich and Judith P. Andersen, "Thursday's child: the role of adverse childhood experiences in explaining mental health disparities among lesbian, gay, and bisexual U.S. adults," *Social Psychiatry and Psychiatric Epidemiology* 50, no. 2 (2015): 335–8, accessed July 20, 2021, https://pubmed.ncbi.nlm.nih.gov/25367679/.
- ⁷⁹ Ilan H. Meyer, Bianca D.M. Wilson, and Kathryn O'Neill, "LGBTQ People in the US: Select Findings from the Generations and TransPop Studies," UCLA School of Law Williams Institute, June 2021,

https://williamsinstitute.law.ucla.edu/wp-content/uploads/Generations-TransPop-Toplines-Jun-2021.pdf.

- ⁸⁰ Jack K. Day, et al., "Transgender Youth Substance Use Disparities: Results From a Population-Based Sample," *Journal of Adolescent Health* 61, no. 6 (2017): 729-735, accessed July 20, 2021, https://pubmed.ncbi.nlm.nih.gov/28942238/.
- ⁸¹ Jack L. Turban, et al., "Pubertal Suppression for Transgender Youth and Risk of Suicidal Ideation," *Pediatrics* 145(2):e20191725, February 2020.
- 82 For further analysis, see: Peter Sprigg, "Do Puberty-Blocking Drugs Make Transgender Kids Less Likely to Commit Suicide, or More?" Family Research Council, February 13, 2020, accessed October 16, 2020,

https://www.frcblog.com/2020/02/do-puberty-blocking-drugs-make-transgender-kids-emlessem-likely-commit-suicideor-emmoreem/.

⁸³ Cecilia Dhejne, et al., "Long-Term Follow-Up of Transsexual Persons Undergoing Sex Reassignment Surgery: Cohort Study in Sweden," *PLoS ONE* 6 (2011), accessed October 16, 2020,

http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0016885.

- 84 "Decision Memo for Gender Dysphoria and Gender Reassignment Surgery (CAG-00446N)," 62.
- 85 "Save Adolescents from Experimentation (SAFE) Act," Family Research Council, June 4, 2021, accessed July 22, 2021, https://www.frc.org/safeact.
- ⁸⁶ Michelle A. Cretella, Quentin Van Meter, Paul McHugh, "Gender Ideology Harms Children," American College of Pediatricians, September 2017, 2.
- ⁸⁷ A school's response to such a request, of course, must consider the legitimate interest of other students, such as physical privacy in showers, locker rooms, and restrooms.
- Thus, these laws are different from—and more defensible than—laws recently adopted in some states which prohibit therapeutic sexual orientation or gender identity change efforts, even when such efforts are carried out using "talk therapy" alone. See: Peter Sprigg, "Protect Client and Therapist Freedom of Choice Regarding Sexual Orientation Change Efforts," Family Research Council, March 2014, https://downloads.frc.org/EF/EF14C40.pdf.
- 89 Lisa Kaczke, "Gov. Kristi Noem has 'a few concerns' about transgender bill," Sioux Falls Argus Leader,

January 24, 2020, accessed October 16, 2020, https://www.argusleader.com/story/news/politics/2020/01/24/south-dakota-legislature-gov-kristi-noem-has-a-few-concerns-transgender-bill/4562853002/.

- ⁹⁰ Gregg Re, "California adds Iowa to 'travel ban' over refusal to fund gender transitions," *Fox News*, September 17, 2019, accessed October 16, 2020, https://www.foxnews.com/politics/california-adds-iowa-to-its-travel-ban-over-refusal-to-fund-gender-transitions?fbclid=IwAR1nBgR2 7AzGi5A9vTHfeDkcIvGgidE b34V3q9rF7-0RZwNbkDeJrrhJE.
- 91 North Carolina Session Law 2016-3, House Bill 2, https://www.ncleg.net/Sessions/2015E2/Bills/House/PDF/H2v4.pdf.
- ⁹² Jill Martin, "NBA moves 2017 All-Star Game to New Orleans," CNN, August 19, 2016, accessed October 16, 2020, http://edition.cnn.com/2016/08/19/sport/nba-all-star-game-moved-to-new-orleans/index.html.
- ⁹³ NCAA, "NCAA to relocate championships from North Carolina for 2016-17," press release, September 12, 2016, http://www.ncaa.org/about/resources/media-center/news/ncaa-relocate-championships-north-carolina-2016-17.
- ⁹⁴ Emery P. Dalesio and Jonathan Drew, "AP Exclusive: Price tag of North Carolina's LGBT law: \$3.76B,"
 Associated Press, March 27, 2017, accessed October 16, 2020,

https://apnews.com/fa4528580f3e4a01bb68bcb272f1f0f8/ap-exclusive-bathroom-bill-cost-north-carolina-376b.

⁹⁵ Bruce Henderson and Tim Funk, "The day after HB2's repeal, transgender people wake up to still-ambiguous law," *Charlotte Observer*, March 31, 2017, accessed October 16, 2020,

http://www.charlotteobserver.com/news/local/article141945379.html.

⁹⁶ Bradford Richardson and Valerie Richardson, "Transgender bathroom bill's hit to North Carolina economy amounts to scant 'rounding error," *The Washington Times*, April 3, 2017, accessed October 16, 2020,

http://www.washingtontimes.com/news/2017/apr/3/transgender-bathroom-bills-hit-to-north-carolina-e/.

⁹⁷ Colin Campbell, "NC has a budget surplus. Should it fund tax cuts or 'better schools and a stronger middle class'?" *The News & Observer*, February 9, 2017, accessed October 16, 2020,

https://www.newsobserver.com/news/politics-government/state-politics/article131766649.html.

- ⁹⁸ W. Gardner Selby, "Business group says bathroom law could lose Texas \$8.5 billion in GDP, up to 185,000 jobs," *PolitiFact*, February 3, 2017, accessed October 16, 2020, https://www.politifact.com/factchecks/2017/feb/03/texas-association-business/business-group-says-bathroom-law-could-lose-texas-/.
- ⁹⁹ Kenneth J. Zucker, "The myth of persistence: Response to 'A critical commentary on follow-up studies and 'desistance' theories about transgender and gender nonconforming children' by Temple Newhook et al. (2018)," *International Journal of Transgenderism* Vol. 19, Issue 2, May 29, 2018, https://www.tandfonline.com/doi/full/10.1080/15532739.2018.1468293.