EXHIBIT D

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF FLORIDA
Tallahassee Division

AUGUST DEKKER, et al., *Plaintiffs*, v. JASON WEIDA, et al., *Defendants*.	Case No. 4:22-cv-00325-RH-MAF

REBUTTAL REPORT OF DANIEL SHUMER, M.D.

I, Daniel Shumer, M.D., hereby declare and state as follows:

1. I have been retained by counsel for Plaintiffs as an expert in connection with the above-captioned litigation.

2. I have actual knowledge of the matters stated herein. If called to testify in this matter, I would testify truthfully and based on my expert opinion.

3. My background and qualifications, review of prior testimony, and compensation have been previously provided in my expert report ("Shumer Rep."). The curriculum vitae attached to my initial expert report remains true, correct and up to date.

4. I hereby provide a rebuttal report to respond to the expert reports provided by the Defendants. This report is provided after my review of reports

submitted by Dr. Michael Laidlaw, Dr. Paul Hruz, Dr. Stephen Levine, Dr. Kristopher Kaliebe, Dr. Sophie Scott, Dr. Michael Biggs, and Dr. Joseph Zanga, as well as my review of plaintiffs' medical records.

5. In preparing this rebuttal report, I have relied on my training and years of research and clinical experience, as set out in my curriculum vitae (attached as **Exhibit A** to my original report) and on the materials listed therein; the materials listed in the bibliography attached as **Exhibit B** to my original report; and the additional materials listed in the supplemental bibliography attached as **Exhibit C** to this rebuttal report. The sources cited in each of these are the same types of materials that experts in my field of study regularly rely upon when forming opinions on the subject, which include authoritative, scientific peer-reviewed publications.

6. I reserve the right to revise and supplement the opinions expressed in this report or the bases for them if any new information becomes available in the future, including as a result of new scientific research or publications or in response to statements and issues that may arise in my area of expertise. I may also further supplement these opinions in response to information produced by Defendants in discovery and in response to additional information from Defendants' designated experts.

EXPERT OPINIONS

7. These expert reports all demonstrate a basic lack of understanding of the nature, evaluation, and treatment of gender dysphoria, the serious consequences of the condition if left untreated, and the strength of the evidence in support of medical management of gender dysphoria, including the efficacy and safety of these treatments. Defendants' experts have limited or no experience with diagnosis and treatment of gender dysphoria. Their opinions are not consistent with current evidence-based standards of care or the general medical consensus – they run counter to recommendations made by leading and well-respected medical bodies.

8. Some of the specific critiques apply in equal measure to more than one expert report.

I. Efficacy of Gender-Affirming Care

9. Dr. Laidlaw and Dr. Hruz are both endocrinologists not involved in the medical treatment of gender dysphoria. Dr. Laidlaw states, "*treatment interventions on behalf of children and adults diagnosed with gender dysphoria must be held to the same scientific standards as other medical treatments. These interventions must be optimal, efficacious, and safe.*" (Laidlaw Rep. ¶ 12). I agree with Dr. Laidlaw's statement; all medical interventions, including treatment for gender dysphoria, require rigorous study and high-quality evidence. The responsibility of all medical

providers is to provide care for patients with a goal of promoting health and wellness while minimizing risk; this can only be done with a thorough knowledge of the patient, their disease process, and the relevant scientific literature.

10. As a pediatric endocrinologist with vast experience in assessing and treating transgender patients, I rely on extremely strong and compelling evidence that hormonal treatments, including pubertal suppression and gender-affirming hormonal care, are efficacious, safe, and promote optimal health outcomes.

11. In my expert report, I referenced several studies which demonstrate the efficacy and safety of gender-affirming care. (Shumer Rep. ¶ 35 (citing de Vries, et al., 2014; de Vries, et al., 2011; Green, et al., 2022; Smith, et al., 2005; Turban, et al., 2022)). These articles represent a small percentage of the full body of literature that was utilized to create evidence-based clinical practice guidelines for the treatment of gender dysphoria in children, adolescents, and adults.

12. The guidelines were published by long-standing and well-respected bodies: the World Professional Association for Transgender Health (WPATH) and the Endocrine Society (Coleman, et al., 2022; Coleman, et al., 2012; Hembree, et al., 2017; Hembree, et al., 2009). Other leading medical bodies including the American Association of Pediatrics, the American Medical Association, the American Psychological Association, the American Psychiatric Association, and American

Academy of Family Physicians all support the tenants of these guidelines due to the rigorous nature of their review of scientific evidence in the field (Rafferty, et al., 2018 (AAP), AMA, 2019; American Psychological Association, 2015; Drescher, et al., 2018 (American Psychiatric Association); Klein, et al., 2018 (AAFP)).

13. Dr. Laidlaw and Dr. Hruz attempt to undermine the WPATH standards of care by characterizing WPATH as an "advocacy organization" (Laidlaw Rep. ¶ 185; Hruz Rep. ¶ 96). WPATH is a longstanding and well-respected standard-setting organization whose mission is "to promote evidence-based care, education, research, public policy, and respect in transgender health" (WAPTH Mission and Vision, 2023). Dr. Laidlaw takes issue with WPATH SOC 7's lack of description of the grading system used. WPATH SOC 8 (the current version) clearly and transparently outlines the grading system used, yet Dr. Laidlaw is still not satisfied, as he would have preferred they presented this information differently (Laidlaw Rep. ¶¶ 196-197). Yet his preference does not undermine the substance of the WPATH standards of care or the evidence on which they rely.

14. Dr. Laidlaw and Dr. Hruz also criticize the Endocrine Society guidelines, pointing to the makeup of the committee and the quality of the data (as existed in 2017). Yet, they fail to provide guidelines published by any well-respected medical body, which, after reviewing the evidence, came to opposite conclusions.

Instead, Dr. Laidlaw references other endocrinologists (one of whom is Dr. Hruz) who form a small group of professionals outside of the mainstream on this topic.

15. Dr. Lappert, who is a retired surgeon – not an endocrinologist – claims that a 2019 article jointly published by the Endocrine Society and other medical bodies on the use of testosterone therapy for women contradicts the Endocrine Society guidelines. But it does not. Adult women sometimes ask endocrinologists for low-dose testosterone because they believe it will help with a variety of concerns including low libido, sexual arousal, wellbeing, mood, or osteoporosis. The consensus report was evaluating those questions. It was ***not*** reviewing evidence related to gender dysphoria or making ***any*** statement for or against gender-affirming care. The words gender, gender dysphoria, and transgender are not contained in the document. The Endocrine Society likely assumed that readers would understand that by use of a title including the word *women* they were talking about *women* and not *transgender men*. Dr. Lappert's confusion here may be related to his refusal to respect transgender men by using any other terminology to refer to them besides "women."

16. Dr. Zanga appears to take issue with the decision of the American Academy of Pediatrics to support the current standards of care related to assessment and management of gender dysphoria (Zanga Rep. ¶¶ 8-18). Dr. Zanga claims that

the AAP ignored potential harms of gender-affirming care (Zanga Rep. ¶ 18). He is wrong. The relevant AAP document very clearly and fairly outlines risks and benefits related to gender-affirming care (Rafferty, et al., 2018). The AAP recommends a "'gender-affirming,' nonjudgemental approach that helps children feel safe in a society that too often marginalizes or stigmatizes those seen as different" (AAP News Release, 2018). This is consistent with the approaches taken by WPATH and the Endocrine Society.

17. Dr. Hruz argues that the outcomes of gender-affirming care are unknown in part because no randomized control trials have been performed (Hruz Rep. ¶ 112). While randomized control trials are an excellent study design in many contexts, management of gender dysphoria is not amenable to this type of study. Due to the current evidence supporting gender-affirming care, it would be unethical to propose a study randomly assigning patients, for example, to GnRHa treatment or placebo. Additionally, the study could not be blinded since patients and families would immediately ascertain which group they were randomized to based on the progression or non-progression of puberty. What is more, patients/families desiring treatment with GnRHa would be unlikely to consent to such a study for fear of being placed in the placebo group. Therefore, researchers in this field must rely on other types of study design, such as longitudinal cohort studies, which monitor change in

symptoms over the course of treatment (de Vries ALC, 2014), or cross-sectional studies comparing treated and untreated persons (Turban, 2022).

18. Dr. Laidlaw chooses to highlight several studies as examples of lack of evidence of effectiveness of gender-affirming treatments (Laidlaw Rep. ¶¶ 201-227). He leads with a review of Dhejne et al.'s study published in 2011. While Dr. Laidlaw is correct that, among other things, this study demonstrates that even after receiving appropriate gender-affirming care, transgender individuals are still at higher risk for negative mental health outcomes than the general population, Dr. Laidlaw ignores that stigma around transgender identity, both 12 years ago in Sweden and in Florida today, makes life more challenging for transgender individuals. What this study did *not* measure, however, is the difference in mental health between transgender individuals who received evidence-based care, and those who were unable to receive this care. In fact, the conclusion of Dhejne is *not* that gender-affirming care is inappropriate, but rather that transgender people require additional support during and after the process of transition.

19. Dr. Laidlaw also describes the efforts undertaken by himself and colleagues to discredit the results of a Swedish study which aimed to investigate rates of mood and anxiety disorder health care visits and antidepressant and anxiolytic prescriptions in patients receiving hormonal or surgical interventions.

Ultimately, while the authors conceded in a letter to the editor that their conclusions were "too strong," they maintained that the study "serves an important purpose and fills an important knowledge gap." The study "lends support for expecting a reduction in mental health treatment as a function of time since completing such treatment" (Branstrom & Pachankis, 2019).

20. Dr. Laidlaw also unfairly discounts the 2015 US Transgender Survey (2015 USTS) and studies based on data from this survey (Laidlaw ¶¶ 210-11). The 2015 USTS serves as the largest survey examining the experiences of transgender people in the United States with 27,715 respondents from all fifty states, DC, American Samoa, Puerto Rico, and U.S. military bases overseas. While extremely large population studies are logistically challenging, the USTS clearly and transparently outlines the recruitment methodology in Chapter 2 of its full report. Its main outreach objective was *to provide opportunities to access the survey for as many transgender individuals as possible in different communities across the U.S. and its territories* (James, 2016). Thus, it was appropriate for the survey to use convenience sampling to achieve its goals. While there are inherent limitations to studies that use this method to reach a large sample, in reviewing any data derived from the 2015 USTS, it is important to consider not only limitations of population-based survey data, but also the significant strengths of being able to capture data

from such a large cohort of individuals. Importantly, Dr. Laidlaw does not point to any studies that contradict the findings of the 2015 USTS.

21. Dr. Hruz takes a similar approach, arguing that studies of gender-affirming care have "major methodological limitations" and attempting to discredit individual studies (Hruz Rep. ¶ 119). What Dr. Hruz ignores is that all scientific studies have limitations. In fact, including a limitation section is required when publishing any manuscript in scientific journals (Lancet, Information for Authors, 2023). That a study has limitations does not mean that the study is dismissed out of hand. To the contrary, each study contributes to the collective knowledge base and health care providers look at the entire body of evidence – as well as their own clinical experience and that of their colleagues – to inform their approach to treatment.

22. For example, Dr. Hruz critiques 2011 and 2014 studies by de Vries et al., which demonstrated that patients with gender dysphoria had improved behavioral and emotional outcomes and depressive symptoms after receiving medical treatment for their gender dysphoria. Dr. Hruz suggests that because the participants were also receiving psychological support, it is not possible to know if it was medical treatment or psychological support which caused the improvement in mental health symptoms (Hruz Rep. ¶ 120). He misunderstands that gender-

affirming care does not mean drugs alone, but rather a constellation of medical treatment and psychosocial support. Separating these aspects of care does not make sense clinically. In my view, the findings in these two studies provide strong evidence in favor of gender-affirming treatment.

23. Dr. Hruz also wrongly claims that the 2020 Turban et al. study is cited as "proof that pubertal blockade prevents suicide in transgender youth" (Hruz Rep. ¶ 120). As I described in my prior report, that study is one of a number of studies supporting the benefits of GnRHa treatment (Shumer ¶ 82). While Dr. Hruz points out that the rate of suicidality is high in both the group treated with GnRHa and the group that did not receive the treatment, that does not mean that the treatment was not helpful. A reduction in suicidality is a significant finding. His critique of the 2022 Tordoff et al. study suffers from the same flawed reasoning.

24. Notably, Dr. Biggs significantly downplays the suffering of transgender adolescents experiencing suicidality by arguing that most suicide attempts are not fatal (Biggs Rep. ¶¶ 15-19). This rhetoric is not only dangerous, but overlooks the fact that reduction in both completed suicide and suicidality are both worthy goals of treatment.

25. While previously faulting studies due to lack of a control group, Dr. Hruz discounts the findings of a study with a control group (van der Miesen, et al.,

2020) on the basis that the group of patients assessed before treatment with GnRHa are younger than the group of patients assessed after treatment. But of course, any pre-GnRHa group will be younger than a post-GnRHa group since GnRHa treatment is started in early puberty and discontinued in later adolescence. Again, Dr. Hruz ignores the inherent limitations of conducting research in clinical medicine.

II. Sex, Gender Identity, and Gender Dysphoria

26. Dr. Biggs's review of the natural history of gender identity differences in children and adolescents is inaccurate (Biggs Rep. ¶ 13). As reviewed in my report (Shumer Rep. ¶ 60), it appears true that the majority of prepubertal *gender diverse* children who are exploring their gender do not develop gender dysphoria and are not expected to become transgender adolescents or adults. But not all *gender diverse* children are *transgender* children. As Dr. Biggs points out, some of these young individuals may have same-sex attraction. They also may simply be gender nonconforming. In contrast, however, children whose gender dysphoria persists into adolescence are highly likely to be transgender (van der Loos, et al., 2022). Dr. Biggs is misinterpreting older studies showing that a large percentage of children diagnosed with gender identity disorder did not grow up to be transgender (e.g., GAPMS Memo at 14; Attachment D (Cantor) to GAPMS Memo at 6-9). Those studies include children who would not fulfill the current diagnostic criteria for

gender dysphoria and, in any case, have no relevance to this case because no medications are prescribed to prepubertal children.

27. Dr. Biggs alludes to the higher rate of autism spectrum disorder (ASD) among children presenting for care at adolescent gender clinics (Shumer et al., (2016); Strang et al., (2018)), apparently suggesting ASD as a cause of gender dysphoria. Dr. Biggs claims that children "on the autistic spectrum are more likely to face difficulties fitting in with same-sex peers, which makes a transgender identity obviously appealing as both an explanation and a solution" (Biggs Rep. ¶14). This is a conjecture by Dr. Biggs, a sociologist, that is not supported by any evidence. It also ignores more plausible explanations. For example, children with ASD may be less aware of social bias or social expectations and therefore be less worried about how others may react to their transition, increasing the likelihood of coming out (Strang, et al., 2016). In any event, there is no research suggesting that treatment for ASD alleviates symptoms of gender dysphoria. Thus, any relationship between the two conditions is irrelevant for the purposes of determining what treatment is effective for gender dysphoria.

28. Similarly, in describing sex and gender, Dr. Hruz completely ignores the role of gender identity (Hruz Rep. ¶¶ 13-21; *see also* Lappert Rep. ¶¶ 31-32). Despite his assertion that sex is not "assigned at birth," it is a fact that the majority

of infants leave the hospital classified as either male or female based on the appearance of their sexual anatomy. Whether or not this assignment or classification will match future gender identity is uncertain. While Dr. Hruz acknowledges that when the sexual anatomy is ambiguous, other elements of sex including chromosomes, hormones, and internal organs can be evaluated to better understand the infant's sex, he fails to recognize that gender identity is another component of sex with biological underpinnings (*see* Shumer Rep. ¶¶ 29-33). Thus, Dr. Hruz correctly explains that in cases of ambiguity, "current practice is to defer sex assignment until the etiology of the disorder is determined and, if possible, a reliable prediction can be made on likely biological and psychologic outcomes" (Hruz Rep. ¶ 18). What does Dr. Hruz mean by this? My interpretation is that when there is discordance is some elements of sex (anatomic, hormonal, chromosomal), the best practice is to delay sex assignment until we feel we can choose a sex for the infant with the highest likelihood of promoting a happy and healthy life, which includes attempting to match sex assignment with future gender identity. Implicit in his statement is that sometimes we are wrong; the sex assigned at birth does not match future gender identity. In children with differences in sex development (DSD), one may then state, "we tried our best to assign sex, but we were wrong; now that the child can express themselves, the other sex assignment would have been correct."

When considering children with gender dysphoria *not* born with a DSD, this same statement would be appropriate. The difference is that there were no clues at birth alerting us to discordant elements of sex. Herein lies the reason that I so thoroughly outlined the biological underpinnings of gender identity (see Shumer Rep. ¶¶ 29-33): while not as obvious as in cases of DSD, a transgender person's sex assigned at birth was equally not correct.

29. Dr. Lappert discounts gender identity on the basis that there is not an "objective, repeatable test, with known error rates, that can be used to detect gender" (Lappert Rep. ¶ 32). There actually is a test which can be used to discover someone's gender identity: simply ask them. It is a human characteristic that is ascertained through a conversation rather than a lab test. Gender identity is a real human characteristic, and it is rooted in biology.

30. Further, I do not agree that providers providing this care (me included) feel compelled to *adopt a patient's self-diagnosis* and feel that his characterization of the evidence-base supporting gender-affirming care is a gross mischaracterization (Hruz Rep. ¶ 91). As a pediatric endocrinologist, when assessing any patient for any condition, my job is to analyze all available information, determine an appropriate diagnosis, and then discuss potential treatment options with patients and parents. This is true regardless of whether I am seeing the patient for gender concerns, slow

growth, thyroid disease, or diabetes. Patients seen in gender clinic who do not have gender dysphoria are not treated with hormonal interventions. Patients who feel that their thyroid is "off" but have normal thyroid function, are not treated with thyroid hormone. Patient "self-diagnosis" has not replaced competent assessment and diagnosis in this field or any other. Rather, providers of gender-affirming care rely upon the well-established and evidence-based standards of care for assessment, diagnosis and management of gender dysphoria.

31. Dr. Laidlaw and Dr. Hruz suggest that because gender dysphoria is in some ways different than other endocrine conditions that they are more comfortable treating, it should not be treated with medication (Laidlaw Rep. ¶¶ 14-27; Hruz Rep. ¶¶ 34, 54). They argue that most endocrine disorders involve hormones made in excess, hormone deficiencies, or structural abnormalities of endocrine glands. Whether or not Dr. Laidlaw and Dr. Hruz would like to classify gender dysphoria as an endocrine condition, several pertinent facts remain clear. First, there is ample scientific evidence that gender identity has a strong biological foundation (Shumer Rep. ¶¶ 29-33). Second, endocrinologists are uniquely suited to treat gender dysphoria due to familiarity with prescribing and monitoring medications such as GnRHa, testosterone, and estrogen. Third, countless medical conditions are diagnosed with clinical observation and questioning rather than with a laboratory

test, an imaging test, or examination of cells under a microscope (e.g., migraines, neuropathic pain, Alzheimer's disease, irritable bowel syndrome, fibromyalgia), but are no less actual medical diagnoses which improve with medical interventions. Fourth, the American Board of Internal Medicine requires knowledge of gender dysphoria and its management in order to become certified as an Endocrinologist (American Board of Internal Medicine, 2023). Ultimately, while I disagree with Dr. Laidlaw's discomfort with classification of gender dysphoria as an endocrine disorder, this debate is mere semantics and not pertinent to the appropriate assessment and management of the condition.

32. Dr. Hruz states that the goal of endocrinology is to restore health (Hruz Rep. ¶ 50). I would offer that this is a goal not only in endocrinology but all of medicine. In my experience and in review of the literature, when I prescribe gender-affirming care, consistent with the Endocrine Society's clinical practice guidelines and WPATH SOC, I am helping to restore health to my patient.

33. Dr. Laidlaw correctly points out that the number of young people being referred to the Gender Identity Development Service in the UK has increased significantly over time (Laidlaw Rep. ¶ 29; *see also* Levine Rep. ¶ 94) but wrongly attributes this increase to "social contagion" and "social media/internet use." I would suggest an alternative explanation that is not only more likely, but also supported by

research. As transgender individuals face less cultural stigma than in previous generations, young people understand that they will be supported and valued by their family and community and are more likely to explore and discuss gender identity openly (Zhang, et al., 2020). Two unrelated examples may make this concept more understandable. First, it should come as no surprise that the rate of openly gay individuals is lower in countries that criminalize homosexuality. Would you suppose that it is more likely that citizens of country X, which criminalizes homosexuality, has very few openly gay citizens because there is naturally a very low rate of homosexuality in that country, or because gay citizens fear retribution for coming out as gay? Second, in many societies left-handed people have been historically encouraged as children to use their right hands for writing and other fine-motor skills. However, in the late 20th century, left-handedness became less stigmatized and the percentage of left-handed people rose from about 4 percent in 1920 to 12 percent in 1980, roughly the same percentage as today (McManus 2009).

34. Dr. Hruz, Dr. Levine, and Dr. Laidlaw also claim that the disproportionate increase in transmasculine adolescents means that gender identity is not biological, but social (Hruz Rep. ¶¶ 116-118; Laidlaw Rep. ¶ 88; Levine Rep. ¶ 95). While they point to research by Dr. Lisa Littman, that research has been heavily criticized, and her conclusions have been called into question (Restar, 2020).

What is more, their logic is flawed. There is no reason why we would necessarily expect the rates of transmasculine people and transfeminine people to be equal. And, it would make sense for those rates to change over time as cultural attitudes towards transmasculine people and transfeminine people change. So long as a cultural bias against transgender people remains, we might not know the true prevalence of transmasculine and transfeminine people. In addition, they ignore that adolescence is a common time for transmasculine people to present to care due to the onset of breast development and menstruation. Transfeminine patients present more commonly younger or older than the mid-adolescent phase which may be in part due to the extreme difficulty for transfeminine adolescents to be accepted and supported by peers (Urquhart, 2017). Furthermore, while they focus on transmasculine adolescents, they ignore that transgender girls and older transgender men are also coming out at higher rates than previously reported (James, 2016; Coleman, 2022).

III. Desistance

35. Dr. Laidlaw and Dr. Hruz assert that rates of "desistance" are very high and therefore treatments as outlined by current standards of care will cause serious and irreversible harm to children and adolescents (Laidlaw Rep. ¶¶ 32-35; Hruz Rep. ¶¶ 63-64). This fallacy, repeated by many opponents of gender-affirming care, misrepresents the data completely. As outlined in my report (Shumer Rep. ¶ 59), it

is true that the majority of prepubertal gender diverse children exploring their gender do not develop gender dysphoria and are not expected to become transgender adolescents or adults, but that is because they are not transgender in the first place. First, as noted above, the studies included gay children and gender nonconforming children who were never transgender. Second, while Dr. Laidlaw cites data from studies of children across wide age groups, age 3-13 in one instance, he does not attempt parse out important clinical information such as the age and pubertal stage of so-called "desisters" in these studies. Lastly, because prepubertal children are not treated with hormonal medications for gender dysphoria, studies that look at prepubertal children, such as those Dr. Laidlaw has cited, have no relevance to the question of how to treat adolescents. Dr. Laidlaw again ignores the fact that children whose gender dysphoria persists into adolescence are highly likely to be transgender (van der Loos, et al., 2022).

36. Dr. Laidlaw also wrongly suggests that the use of pubertal suppression alters the natural course of "desistance," whereby patients prescribed pubertal suppression are very likely to be prescribed gender-affirming hormones later in adolescence (Laidlaw Rep. ¶¶ 111-112). Here Dr. Laidlaw is making a causal theory error – making a claim of causation based on correlational evidence. Children with persisting gender dysphoria into puberty (1) are very likely to have persisting gender

dysphoria into adulthood, and (2) are eligible for treatment with GnRHa. The use of GnRHa is not actually influencing future gender identity. In other words, the fact that patients prescribed pubertal suppression are very likely to later be prescribed gender-affirming hormones simply indicates that clinicians are correctly identifying patients who have gender dysphoria and benefit from medical intervention.

37. Dr. Hruz describes three "approaches" for treating children with gender dysphoria: "reparative therapy," "watchful waiting," and "gender affirming" (Hruz Rep. ¶¶ 60-87). As outlined in my report, gender exploration in childhood is expected and healthy (Shumer Rep. ¶ 60). Of course, parents of a child exploring their gender identity should not push the child to become transgender – this makes no sense and would work just as poorly as parents pushing their children to identify with their sex assigned at birth (referred to as reparative therapy by Dr. Hruz), which is both ineffective and harmful (Shumer Rep. ¶ 28). Unlike the gender-affirming approach, which is well supported by research and the experience of clinicians, including my own, there is no evidence to support the "watchful waiting" approach Dr. Hruz describes, which is not the same as the "watchful waiting" model adopted by the Dutch.

38. Moreover, it is not clear how this approach is supposed to work as a practical matter. When a child asks their parents to use a different name or pronouns,

the parent can either reject this request or accept this request, there is no "neutral" response, as Dr. Hruz suggests. If honoring a child's chosen name and pronouns is gender-affirming and rejecting the request is reparative therapy, what does the watchful waiter do? If asked, I would suggest that parents allow their child to safely explore gender identity, making it clear that whatever the future outcome, the child will receive unconditional love, support, and respect. If using a different name or pronoun would be helpful in the process of gender exploration, parents should consider honoring that request.

39. Furthermore, at the start of puberty, a child with persistent and/or intensifying gender dysphoria is much more likely to be transgender (van der Loos, et al., 2022) and will begin to exhibit secondary sex characteristics. Watchful waiting in this situation is no longer neutral. In these situations, it appears Dr. Hruz would categorize the use of GnRHa as part of the "gender affirming" approach in his three-approach schema, and no medical intervention as "watchful waiting." However, the use of GnRHa in children exploring their gender identity was first described by Delemarre-van de Waal and Cohen-Kettenis (2006) as a reversible intervention allowing for delayed decision-making regarding hormone therapy, a strategy more consistent with the "watchful waiting" concept.

40. I do not agree with Dr. Hruz that providers of gender-affirming care are presuming that development of *natural sex characteristics interfere with the exploration of gender identity* as an impetus to offer GnRHa (Hruz Rep. ¶ 71). Rather, GnRHa can prevent intensification of dysphoria during puberty while enhancing the future ability of the patient to present to the world in a gender congruent manner.

41. I agree with Dr. Hruz that providers should use caution when "interfering with the normal process of maturation" (Hruz Rep. ¶ 72). In my experience, providers in this field *are* using caution when prescribing GnRHa and gender-affirming hormones in adolescence, weighing potential benefits against potential risks with each individual patient, in candid communication with parents, and with the best intentions for the wellbeing of the adolescent in question.

IV. Side Effects of Puberty Suppression and Hormone Treatment

42. The report correctly defines a medical condition, *hypogonadotropic hypogonadism*, as a condition in which the pituitary fails to send signals to the gonads (Laidlaw Rep. ¶ 79). Dr. Laidlaw then describes gender affirmative therapy (specifically, pubertal suppression) as deliberately causing the medical condition *hypogonadotropic hypogonadism* and then, based on a limited review of some of the plaintiffs' medical records, declares that the plaintiffs have developed

hypogonadotropic hypogonadism as a result of their medical care (Laidlaw Rep. ¶¶ 87-91). In his report, Dr. Laidlaw described the use of GnRHa in treatment of prostate cancer and precocious puberty. Interestingly, he did not frame GnRHa as causing the medical condition *hypogonadotropic hypogonadism* in those patients but described the use of GnRHa as effective treatment for these other conditions. He ignores that GnRHa is also an effective treatment for gender dysphoria. Conflating the goal of therapy (suppression of sex hormone production) with causing a medical condition (*hypogonadotropic hypogonadism*) in one instance, but not others, is inappropriate if not disingenuous.

43. Dr. Laidlaw repeats this same wordplay tactic in describing the administration of testosterone as inducing *hyperandrogenism* in transgender men (Laidlaw Rep. ¶¶ 124-148), and administration of estrogen as inducing *hyperestrogenism* in transgender women (Laidlaw Rep. ¶¶ 150-159). He describes the use of testosterone to treat gender dysphoria in transgender male plaintiffs as inducing *hyperandrogenism* and speculates that one of the plaintiffs, a transgender girl, is at risk for *hyperestrogenemia* if she requires estrogen treatment in the future (Laidlaw Rep. ¶¶ 87-91).

44. In reality, when testosterone is prescribed for gender dysphoria as for the transgender male plaintiffs, the goal is to achieve a normal male testosterone

level based on age, meaning a testosterone level that is consistent with the normal testosterone levels for cisgender males of similar age; when estrogen is prescribed for gender dysphoria as it is for transgender females, the goal is to achieve a normal female estrogen level based on age, meaning an estrogen level that is consistent with the normal estrogen levels for cisgender females of similar age. These goals mirror what Dr. Laidlaw or any other endocrinologist would aim for when treating low testosterone or ovarian failure (Laidlaw ¶¶ 115, 149).

45. Dr. Laidlaw frames evidence-based treatments for gender dysphoria as causing medical conditions, rather than acknowledging the similarity in how these medications are used in different contexts. The underlying premise of Dr. Laidlaw's opinions seems to be that gender dysphoria is not a legitimate diagnosis worthy of any medical treatment and that there should not be any transgender people.

46. Dr. Laidlaw also misconstrues the effect of GnRHa on fertility. As outlined in my prior report, GnRHa treatments do not have long-term implications on fertility (Shumer ¶ 79). Dr. Laidlaw correctly explains that giving GnRHa to a four-year-old with precocious puberty will not impair fertility. Likewise, GnRHa will also have no effect on fertility when used in older transgender adolescents.

47. It may seem that Dr. Laidlaw is claiming that GnRHa cause infertility, but he is not; he is merely pointing out that progression through puberty – at some

point – is needed for maturation of sperm and eggs. Dr. Laidlaw posits that gender-affirming hormones could possibly damage immature gonads without providing supportive data. So long as gonads remain in place, there remains fertility potential. To be sure, this would require progression through the puberty associated with the sex assigned at birth.

48. In the context of gender-affirming care, concerns about fertility are discussed with adolescent patients and their families when receiving both GnRHa as treatment and/or gender-affirming hormones. Indeed, SOC 8 recommends that "health care professionals working with transgender and gender diverse adolescents requesting gender-affirming medical or surgical treatments inform them, prior to initiating treatment, of the reproductive effects including the potential loss of fertility and available options to preserve fertility within the context of the youth's stage of pubertal development." (Coleman, et al., 2022).

49. What is more, for transgender adolescents taking GnRHa and for whom hormones appears to be indicated as treatment, it is fairly common for fertility preservation to occur after a brief cessation of GnRHa treatment but before hormones. For example, case reports, including one from Dr. Hruz's own institution, illustrate the success of this approach in fertility preservation. (Martin, et al., 2021; Rothenberg, et al., 2019).

50. Even if gender-affirming hormones were introduced following use of GnRHa, these hormones could be discontinued with a goal of progression through internal puberty and achieving fertility. Withdrawal of hormones in adulthood often is successful in achieving fertility when it is desired (Light, et al., 2014; Knudson, et al., 2017). Dr. Hruz is skeptical that a patient who received GnRHa followed by hormones would have any fertility potential (Hruz ¶ 86). While this would likely require discontinuation of all medication and progression through puberty, there has been a study aiming to investigate this question. Caanen et al demonstrated that transgender men have similar ovarian morphology to cisgender women, even when treated with GnRHa followed by testosterone. These treatments did not cause the ovarian changes which are seen in hyperandrogenic women with polycystic ovarian syndrome and infertility (Caanen, 2017). This lends credence to the expectation that the sequence of GnRHa to testosterone does not cause permanent infertility.

51. Dr. Laidlaw also raises concerns about future sexual function in patients prescribed GnRHa (Laidlaw ¶¶ 98-99). In my experience, it is essential to have open, age-appropriate discussions around sex and sexuality while respecting that all persons, including transgender people, are diverse in terms of sexual orientation and desires. Sexuality and sexual function should be considered and maximized as

transgender patients reach adulthood. However, it should not be underestimated how a positive body image is also associated with better sexual function and satisfaction (Nikkelen, 2018). Additionally, research clearly shows that persons with untreated gender dysphoria may have significant challenges with sexuality and sexual function (Holmberg, 2019).

52. Dr. Laidlaw's concerns about bone density in patients prescribed GnRHa are likewise overblown, if not wholly unfounded (Laidlaw Rep. ¶¶ 100-109; *see also* Hruz Rep. ¶ 87). It is accurate to state that pubertal hormones (either testosterone or estrogen) contribute to bone density accrual. A person who never was exposed to any sex hormones for their entire life would be at high risk of osteoporosis. It is not surprising that the Carmichael study referenced (Laidlaw Rep. ¶ 104) found that there is a reduction in Z-scores in adolescents on GnRHa aged 12-15 during the time of treatment when compared to age-matched controls. What is misleading, however, is that these patients will be transitioned off GnRHa when a decision is made regarding treatment with gender-affirming hormones or to resume puberty consistent with their birth-assigned sex. After exposure to sex hormones, bone density accrual will rise. In practice, risk of lower bone mineral density is mitigated by screening for, and treating, vitamin D deficiency when present, and by

limiting the number of years of treatment based on a patient's clinical course (Rosenthal, 2014).

53. Dr. Scott and Dr. Laidlaw raise a hypothetical concern regarding brain development, suggesting that somehow use of GnRHa has "unknown, but likely negative consequences … with respect to brain development" (Laidlaw Rep. ¶ 110; *see also* Scott Rep. ¶ 15). I have heard this argument from opponents of GnRHa use before but have difficulty understanding its basis. For example, when considering children with naturally occurring delayed puberty, I find no published evidence of negative consequences to brain development compared with children with normally timed puberty. Likewise, Dr. Laidlaw can point to no published evidence in support of this concern in transgender adolescents prescribed GnRHa.

54. As for Dr. Scott, she describes how the brain changes over time, but no description about how pubertal hormones play a role in those changes. Her inclusion of data reviewing GnRHa data in sheep and in girls with precocious puberty have questionable applicability to gender care (Scott Rep. ¶ 15). The other article she cites found, "GnRHa treated girls do not differ in their cognitive functioning … from the same age peers" (Wojniusz et al., 2016). The authors of this article came to this conclusion because there was not a statistically significant difference in IQ, memory, mental rotation, cognitive executive function, processing speed, attention or

executive function in participants treated with GnRHa for precocious puberty. This suggests that Dr. Scott's concerns about GnRHa and brain development are unfounded.

55. Dr. Laidlaw also misrepresents the risks of using the hormone *testosterone* to treat gender dysphoria (Laidlaw Rep. ¶¶ 114-122). He correctly explains that when treating men with testosterone deficiency, the dose of testosterone must be carefully considered and monitored to avoid excess levels (Laidlaw Rep. ¶ 115). This is equally true when using testosterone for treatment of gender dysphoria. He mentions that some individuals abuse testosterone by taking more than prescribed, but it is unclear if he is implying that transgender men would be more likely to do this than others, which I would not expect and find no data to support. All of the adverse effects of excessive testosterone that Dr. Laidlaw avoids by carefully monitoring his patients with low testosterone (e.g., increased libido, headache, erythrocytosis) are similarly avoided by careful monitoring in transgender men.

56. Dr. Laidlaw also appears to argue that transgender men can develop erythrocytosis (elevation in the red blood cell measurement, hematocrit) while being treated with testosterone (Laidlaw Rep. ¶ 148). Dr. Laidlaw is using the female reference range for hematocrit to make this assertion, again considering these

patients as females with *hyperandrogenism* rather than transgender men receiving evidence-based care for gender dysphoria. This is inappropriate; the male reference range for hematocrit should be used for patients on testosterone treatment (Deutsch, 2016).

57. Similarly, Dr. Hruz suggests that testosterone administration to a person assigned male at birth may have different effects than when given to a person assigned female at birth since there are thousands of sex-differentially expressed genes (Hruz Rep. ¶ 82). While this speculation could be potentially true, Dr. Hruz does not provide a clinical example of how this could be of concern, and I am not aware of any research confirming his suggestion.

58. Dr. Laidlaw makes parallel arguments regarding estrogen (Laidlaw ¶¶149-159) by pointing out the elevated estrogen can be associated with health problems, while ignoring that the goal of treatment with estrogen in gender dysphoria is maintenance of estrogen levels in the normal female range. Risk for the health concerns he highlights are avoided by careful monitoring in transgender women.

59. He states that the risk for breast cancer increases when a "male" is treated with "high dose estrogen" (Laidlaw Rep. ¶ 157). This misunderstands the risks. It is of course not surprising that transgender women with breasts are at higher

risk for breast cancer than men without breasts. What Dr. Laidlaw leaves out of his discussion is the complete findings of the Christel article referenced. That article found that despite an increased risk of breast cancer in transgender women compared with cisgender men, there was a lower risk when comparted to cisgender women. The article concluded that "breast cancer screening guidelines for cisgender people are sufficient for transgender people using hormone treatment" (Christel, 2019).

60. Drs. Laidlaw and Hruz argue that risks of gender-affirming care outweigh the benefits. They are incorrect; they have provided a grossly exaggerated and erroneous description of risk while completely discounting the benefits of treatment or the risks of withholding treatment.

V. Informed Consent

61. Dr. Laidlaw argues that it is not possible for parents to make a truly informed consent decision regarding gender-affirming care, and suggests, without reasoning or evidence, that this decision is somehow different than other complex medical decisions that parents and guardians make regarding the health and wellness of their children every day. In my experience as a pediatrician working with children and families every day, Dr. Laidlaw is severely underestimating the capacity of parents and guardians to understand and balance information pertaining to the health of their children. He also ignores that WPATH SOC 8 clearly outlines criteria for

how providers obtain assent and consent for medical intervention (Coleman, et al., 2022).

62. For his part, Dr. Hruz implies that providing care to transgender patients using the standards of care violates principal tenants of medicine; he believes this because he considers these treatments "experimental," and as a result, patients and their parents cannot provide informed consent (Hruz Rep. ¶¶ 98, 105). However, as detailed in my initial report and reiterated above, gender-affirming care is not experimental – it is based on significant scientific research and clinical experience and is supported by every major medical association in the country. As a provider of gender-affirming care, it is my opinion that *withholding* gender-affirming care would violate the basic tenants of medicine. Dr. Levine makes a similar point about the Hippocratic Oath (Levine Rep. ¶ 87). Again, this oath has guided me and my colleagues to provide gender-affirming care when appropriate, weighing the risk of treatment against the harm of not treating.

63. Dr. Hruz further claims that parents cannot provide informed consent because providers often threaten parents that "failure to allow a gender dysphoric child to medically transition will result in suicide" (Hruz Rep. ¶ 106). Dr. Hruz provides no support for this assertion, and I personally have never considered making this kind of statement to patients or their families; this is not common

practice nor is it suggested in the SOC. In contrast, consistent with the SOC, I am always clear with patients and parents that I consider every perspective in the room valid, based on love, and rooted in the intention to make the best decision for the health of the adolescent. Any complete assessment of an adolescent's gender identity includes vital information from parents, who have much more knowledge of their child than their health care providers could ever have. Most often, careful exploration of the desires, fears, questions, and concerns of both patients and parents leads to better understanding and improves collaboration and the ability to make sound medical decisions together.

64. Raising similar concerns to Dr. Hruz, Dr. Scott believes that gender-affirming care may be appropriate in children and adolescents but is concerned about how to identify appropriate candidates for this care (Scott Rep. ¶ 7). Fortunately, assessment by highly competent mental health professionals is a cornerstone of the current standards of care in adolescent gender medicine and helps to identify appropriate candidates for medical treatments.

65. That said, Dr. Hruz's assertion that rates of suicidal ideation and attempt in transgender adolescents are similar to those found in adolescents without gender identity is incorrect and wildly disconnected from the literature.

Unfortunately, the rates among transgender adolescents are significantly elevated (Reisner, et al., 2015).

66. Dr. Hruz then references Dr. Levine (another designated expert for the defendants) in stating that informed consent in this context fails with respect to discussion of the natural history of gender dysphoria in adolescents, the quality of evidence regarding gender-affirming care, and the handling of the question of suicidality (Hruz Rep. ¶108). In my own practice, consistent with the SOC, I am careful to review the evidence as outlined in my report with patients and families and reject the claim that the consent process is limited by "erroneous professional assumptions" or "poor quality of the initial evaluations".

The following section of this rebuttal report (Section VI – Dr. Laidlaw's Opinions Regarding Plaintiffs) is designated as CONFIDENTIAL pursuant to the Protective Order in this matter (ECF No. 77).

VI. Dr. Laidlaw's Opinions Regarding the Plaintiffs

67. Dr. Laidlaw claims that plaintiffs K.F. (Laidlaw Rep. ¶¶ 230-250), Brit Rothstein (Laidlaw Rep. ¶¶ 251-270), S.D. (Laidlaw Rep. ¶¶ 271-293), and August Dekker (Laidlaw Rep. ¶¶294-305) should not be receiving gender-affirming care.

68. I have not spoken with the plaintiffs, the parents of the minor plaintiffs, or their providers. However, as noted above, I have reviewed their medical records, and based on that review, I disagree with Dr. Laidlaw's conclusions about the plaintiffs' treatments. First, his opinions about the plaintiffs rest on his belief that nobody should be prescribed GnRHa or hormones to treat gender dysphoria. Second, his criticisms of the specific care the individual plaintiffs received are unfounded.

69. Based on the available medical records, I do not have any medical concerns regarding the gender-affirming care received by K.F. In fact, I would posit that K.F.'s mental health would deteriorate precipitously if he were unable to continue to receive this care. In review of the clinical course of K.F., he appears to have had clear and consistent male gender identity since at least the age of 6. The decision to make a social transition appears to have been discussed by a mental health professional as is recommended in the Endocrine Society Guidelines

(Hembree, 2017). He happens to have been seen at Boston Children's Hospital in September 2015, just after the completion of my training at this institution. All patients seen at this clinic are assessed by a member of the mental health team. And, regardless of how Dr. Laidlaw may personally feel about nurse practitioners (Laidlaw Rep. ¶¶ 235-236), NPs – including Sara Pilcher, who I personally worked alongside in Boston – are qualified to and provide excellent, thoughtful and evidence-based care under supervision of physicians in pediatric endocrinology and all other fields of medicine.

70. Dr. Laidlaw is looking for signed documentation of discussions regarding risks and benefits of treatment, suggesting that if there is no signed document these conversations must not have occurred. However, it is not my practice, nor to my knowledge a common practice, to have parents sign documents related to medical conversations that take place in gender clinics or other pediatric endocrinology clinics for the treatment of gender dysphoria or other conditions. Dr. Laidlaw attempts to conflate diagnoses of anxiety and ADHD as evidence of deteriorating mental health as a result of gender-affirming therapy. Whether K.F. has or does not have anxiety or ADHD has no bearing on whether the gender-affirming care received is providing benefit for gender dysphoria, a separate medical problem.

71. I disagree with Dr. Laidlaw's review of Brit Rothstein; I do not have concerns about his care and would suggest Mr. Rothstein's mental health would deteriorate if unable to receive gender-affirming care. Dr. Laidlaw's review of Brit Rothstein is notably flawed in a few respects. Similar to his incredulity that nurse practitioners can provide high quality evidence-based care, Dr. Laidlaw seems to believe that the only mental health professionals able to competently work with transgender adolescents are psychologists or psychiatrists (Laidlaw Rep. ¶¶ 254-255). In fact, therapists and social workers not only are trained and licensed to do this work, but in my experience are often more effective due to their ability to see patients regularly and build understanding and rapport. At the Child and Adolescent Gender Clinic at Michigan Medicine, where I serve as Clinical Director, our mental health team consists of two social workers and a child and adolescent psychiatrist. The social workers perform comprehensive biopsychosocial assessments for all new patients, and the child and adolescent psychiatrist sees only a fraction of our patients who have additional psychiatric needs.

72. Dr. Laidlaw points out that Mr. Rothstein is more medically complex than other patients with gender dysphoria (Laidlaw Rep. ¶¶ 259-261). Certainly, a careful review of a patient's medical history is important prior to starting gender-affirming care. But none of Mr. Rothstein's co-occurring conditions contraindicate

the gender-affirming care he has received. Indeed, medically complex patients do present to gender clinics and may benefit from hormonal interventions; comorbid medical problems should not and do not preclude gender-affirming treatment. My review of Mr. Rothstein's records reveals that his providers have been carefully considering his other medical problems and monitoring them in order to help him transition safely.

73. Dr. Laidlaw opines that Mr. Rothstein has developed erythrocytosis (elevation in the red blood cell measurement, hematocrit) while being treated with testosterone (Laidlaw Rep. ¶ 148). But as noted above, Dr. Laidlaw is using the female reference range for hematocrit to make this assertion, which is inappropriate, because the male reference range for hematocrit should be used for patients on testosterone treatment. Indeed, Mr. Rothstein's most recently documented hematocrit was within the appropriate range for a male.

74. I also disagree with Dr. Laidlaw's review of S.D. who has received appropriate care and would likely have deterioration in health if this care were discontinued. In S.D.'s case Dr. Laidlaw again takes note of the fact that Dr. Linda Ouellet and Rebecca Thipsingh are therapists - trained and licensed mental health professionals. As I stated above, this is neither unusual nor inappropriate. He takes particular umbrage with the parents' decision to help S.D. make a social transition,

stating that this decision "had the iatrogenic effect of preventing the natural course of desistance which would occur in the majority of children" (Laidlaw Rep. ¶ 276). This is incorrect, wildly speculative, and unfounded. Social transition does not significantly impact the natural course of a prepubertal child's gender identity. That more children who make a social transition maintain a transgender identity into adolescence can be clearly explained by the fact that children with stronger and more intense identification are both: (1) more likely to make a social transition; and (2) more likely to continue to identify this way as adolescents. Here, Dr. Laidlaw is making the same causal theory error that he made previously when suggesting that GnRHa actually influences future gender identity (see para 5, above).

75. Dr. Laidlaw says he is concerned that S.D. and her mother have unrealistic expectations about gender-affirming care based on the statement that "there is nothing worse in S.D.'s mind than male puberty" (Laidlaw Rep. ¶ 280). But that statement makes complete sense given that S.D. identifies as a girl. What girl wouldn't describe the prospect of going through male puberty as a nightmare? Dr. Laidlaw suggest that "it is common for parents and children influenced by GAT practitioners to believe that a child can go through puberty of the opposite sex. However, they have been misinformed as this is not possible" (Laidlaw Rep. ¶ 280). Dr. Laidlaw insults not only the competence of practitioners to provide complex

information, but more glaringly the intelligence of patients and parents. Patients and parents do not expect testicles to become ovaries. In S.D.'s case, if estrogen is prescribed in the future, she would develop secondary sex characteristics consistent with other girls. Whether or not Dr. Laidlaw refuses to call this "female puberty" is of no practical consequence.

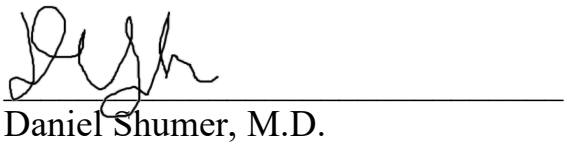
76. I also have no concerns about the care received by August Dekker, disagree with Dr. Laidlaw's review of his care, and feel that he would be at high risk for negative health outcomes if his care were discontinued. In discussing the case of Mr. Dekker (Laidlaw Rep. ¶¶ 294-305), Dr. Laidlaw, an endocrinologist, describes a sort of forensic investigation he performed related to August's mental health professional. While I cannot comment on the status of Abbie Rolf's license, I can state that (1) membership in WPATH is certainly not a reason to reject the assessment of a mental health professional; (2) Dr. Laidlaw's re-assertion that only psychiatrists and psychologists are capable of assessment of gender identity is inappropriate and condescending to mental health professionals; and (3) there is no reason that a mental health professional should require multiple visits with an adult transgender man requiring chest surgery if it becomes clear that he meets criteria for this surgery after a single visit. Dr. Laidlaw is also concerned as to whether Planned Parenthood has an endocrinologist on staff. This is immaterial, as prescribing

testosterone is not restricted to endocrinologists, and it is common and appropriate for practitioners from various disciplines to provide hormone treatment. In my home institution, adult transgender men receive their hormonal care from extremely well-trained and competent providers in a variety of medical disciplines including gynecology, family medicine, internal medicine, urology, and also endocrinology.

This marks the end of CONFIDENTIAL section of this rebuttal report.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed this 10th day of March 2023.



Daniel Shumer, M.D.

Exhibit C

Supplemental Bibliography

SUPPLEMENTAL BIBLIOGRAPHY

American Academy of Pediatricians, AAP Policy Statement Urges Support and Care of Transgender and Gender-Diverse Children and Adolescents (Sep. 7, 2018), https://www.aap.org/en/news-room/news-releases/aap/2018/aap-policy-statement-urges-support-and-care-of-transgender-and-gender-diverse-children-and-adolescents.

American Board of Internal Medicine: Endocrinology, Diabetes, and Metabolism Certification Examination Blueprint. (2023). https://www.abim.org/Media/wxbjt5o3/endocrinology-diabetes-metabolism.pdf.

American Medical Association (AMA) and GLMA (2019). Health Insurance Coverage for Gender-Affirming Care of Transgender Patients. https://www.ama-assn.org/system/files/2019-03/transgender-coverage-issue-brief.pdf

American Psychological Association. (2015). Guidelines for psychological practice with transgender and gender nonconforming people. American Psychologist, 70, 832-864.

Branstrom R & Pachankis, K. (2019). Reduction in Mental Health Treatment Utilization Among Transgender Individuals After Gender-Affirming Surgeries: A Total Population Study. Amer. J. of Psychiatry. 177(8).

Caanen MR, et al. (2017). Effects of long-term exogenous testosterone administration on ovarian morphology, determined by transvaginal (3D) ultrasound in female-to-male transsexuals. Hum Reprod. 32(7):1457-1464.

Christel JM de Block, Wiepjes CM, Nota NM, et al. Breast cancer risk in transgender people receiving hormone treatment: nationwide cohort study in the Netherlands. BMJ 2019;365.

Coleman E, Radix AE, Bouman WP et al. Standards of care for the health of transgender and gender diverse people, version 8. Int J Transgend 2022 Sep 6;23 (suppl 1): S1-S259.

Coleman E, Bockting W, Botzer M. et al. Standards of care for the health of transsexual, transgender, and gender-nonconforming people, version 7. (2012) International Journal of Transgenderism. 13. 165-232.

de Vries ALC, McGuire JK, Steensma et al., Young adult psychological outcome after puberty suppression and gender reassignment. Pediatrics 2014 Oct;134(4):696-704.

de Vries, A. L. C., Steensma, T. D., Doreleijers, T. A., & Cohen-Kettenis, P. T. (2011). Puberty suppression in adolescents with gender identity disorder: A prospective follow-up study. The Journal of Sexual Medicine, 8(8), 2276–2283.

Delemarre-van de Waal HA, Cohen-Kettenis PT. (2006). Clinical management of gender identity disorder in adolescents: a protocol on psychological and paediatric endocrinology aspects. European Journal of Endocrinology. 155:S131-S137.

Deutsch, MB (ed.). Guidelines for the primary and gender-affirming care of transgender and gender nonbinary people (2nd ed.) 2016. University of California, San Francisco, Department of Family and Community Medicine Center of Excellence for Transgender Health. https://transcare.ucsf.edu/sites/transcare.ucsf.edu/files/Transgender-PGACG-6-17-16.pdf

Dhejne C, Lichtensetin P, Boman M, et al., Long-term follow-up of transsexual persons undergoing sex reassignment surgery: cohort study in Sweden. PLoS One. 2011 Feb22;6(2):e16885.

Drescher, J., Haller, E., & Yarbrough, E. (2018). Position statement on access to care for transgender and gender diverse individuals. Caucus of LGBTQ Psychiatrists and the Council on Minority Mental Health and Health Disparities, American Psychiatric Association.

Green AE, DeChants JP, Price MN, et al. Association of Gender-Affirming Hormone Therapy with Depression, Thoughts of Suicide, and Attempted Suicide Among Transgender and Nonbinary Youth. Journal of Adolescent Health (2022) 70(4) 643-649.

Hembree, W.C., Cohen-Kettenis, P.T., Gooren, L., et al. (2017). Endocrine Treatment of Gender-Dysphoric/Gender-Incongruent Persons: An Endocrine Society Clinical Practice Guideline, *The Journal of Clinical Endocrinology & Metabolism*, 102(11): 3869–3903.

Hembree WC, Cohen-Kettenis P, Delemarre-van de Waal HA, et al. (2009). Endocrine treatment of transsexual persons: an endocrine society clinical practice guideline. J Clin Endocrinol Metab. 94:3132-54.

Holmberg M., Arver S., Dhejne C. Supporting sexuality and improving sexual function in transgender persons. Nat Rev Urol. 2019 Feb;16(2):121-139.

James SE, Herman JL, Rankin S, et al., The report of the 2015 U.S. Transgender Survey. (2016) Washington, DC: National Center for Transgender Equality.

Klein, D.A., Paradise, S.L., and Goodwin, E.T. (2018). Caring for Transgender and Gender-Diverse Persons: What Clinicians Should Know. Am Fam Physician. 2018;98(11):645-653.

Knudson G, De Sutter P. Fertility optinos in transgender and gender diverse adolescents. Acta Obstetricia et Gynecologica Scandinavia. 2017 July; 96(10): 1269-1272.

Lancet, Information for Authors (2023). https://www.thelancet.com/pb/assets/raw/Lancet/authors/tl-info-for-authors-1676565160037.pdf.

Light AD, Obedin-Maliver J, Sevelius JM, Kerns JL. Transgender men who experienced pregnancy after female-to-male gender transitioning. Obsetet Gynecol. 2014 Dec; 124(6):1120-1127.

Martin CE, Lewis C, Omurtag K, Successful oocyte cryopreservation using letrozole as an adjunct to stimulation in a transgender adolescent after GnRH agonist suppression. Fertility and Sterility. 2021, 116(2): 522-27.

McManus IC. The history and geography of human handedness. In: Language Lateralization and Psychosis. Edited by Sommer I, Kahn RS. Cambridge University Press. 2009: 37-58.

Nikkelen SWC, Kreukels BPC. Sexual Experiences in Transgender People: The Role of Desire for Gender-Confirming Interventions, Psychological Well-Being, and Body Satisfaction. J Sex Marital Ther. 2018 May 19; 44(4):370-381.

Rafferty J, Yogman M, Baum R, et al. Ensuring comprehensive care and support for transgender and gender-diverse children and adolescents. Pediatrics (2018) 142 (4).

Reisner SL, Vetters R, Leclerc M et al., Mental health of transgender youth in care at an adolescent urban community health center: a matched retrospective cohort study. J Adolesc Health. 2015 Mar;56(3):274-9.

Restar AJ. Methodological critique of Littman's (2018) parental-respondents accounts of "rapid-onset gender dysphoria. Arch Sex Behav. 2020:49(1):61-66.

Rosenthal SM. Approach to the Patient: Transgender Youth: Endocrine Considerations. J Clin Endocrinol Metab. 2014 Dec;99(12):4379-89.

Rothenberg, SS et al. (2019). Correspondence: Oocyte Cryopreservation in a Transgender Male Adolescent. N. Engl. J. Med., 380: 886-887.

Smith, Y. L., Van Goozen, S. H., Kuiper, A. J., & Cohen-Kettenis, P. T. (2005). Sex reassignment: Outcomes and predictors of treatment for adolescent and adult transsexuals. Psychological Medicine, 35(1), 89–99.

Turban JL, King D, Kobge J, et al. (2022). Access to gender-affirming hormones during adolescents and mental health outcomes among transgender adults. PLoS One. 17(1):e0261039.

Urquhart E. Why Are Trans Youth Clinics Seeing an Uptick in Trans Boys? Slate. (Sep. 17, 2017).

Van der Loos MA, Hannema SE, Klink DT, at el. Continuation of gender-affirming hormones in transgender people starting puberty suppression in adolescence: a cohort study in the Netherlands. The Lancet Child & Adolescent Health. (2022), 6(12) 869-875.

WPATH Mission and Vision (2023). https://www.wpath.org/about/mission-and-vision#:~:text=Mission%3A%20To%20promote%20evidence%20based,social%20services%2C%20justice%20and%20equality.

Wojniusz S, Callens N, Sütterlin S, Andersson S, De Schepper J, Gies I, Vanbesien J, De Waele K, Van Aken S, Craen M, Vögele C, Cools M, Haraldsen IR. Cognitive, Emotional, and Psychosocial Functioning of Girls Treated with Pharmacological Puberty Blockage for Idiopathic Central Precocious Puberty. Front Psychol. 2016

Jul 12;7:1053.

Zhang Q, Goodman M, Adams N, et al. Epidemiological considerations in transgender health: A systematic review with focus on higher quality data. Int J Transgend Health. 2020; 21(2): 125-137.