No. 23-1078 (L) (2:21-cv-00316)

IN THE
UNITED STATES COURT OF APPEALS
FOR THE FOURTH CIRCUIT

B.P.J., by her next friend and mother; HEATHER JACKSON,

Plaintiff - Appellant,

versus

WEST VIRGINIA STATE BOARD OF EDUCATION; HARRISON COUNTY BOARD OF EDUCATION; WEST VIRGINIA SECONDARY SCHOOL ACTIVITIES COMMISSION; W. CLAYTON BURCH, in his official capacity as State Superintendent; DORA STUTLER, in her official capacity as Harrison County Superintendent,

Defendants - Appellees.

and

THE STATE OF WEST VIRGINIA; LAINEY ARMISTEAD,

Intervenors - Appellees

On Appeal from the United States District Court for the Southern District of West Virginia (Charleston Division)
The Honorable Joseph R. Goodwin, District Judge
District Court Case No. 2:21-cv-00316

JOINT APPENDIX – VOLUME 7 OF 9 (JA3112-JA3736)

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SUPPLEMENTAL APPENDIX TO DEFENDANT-INTERVENOR'S MOTION FOR SUMMARY JUDGMENT

IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF WEST VIRGINIA
CHARLESTON DIVISION

B.P.J, by her next friend and mother, HEATHER JACKSON *Plaintiff,* v. WEST VIRGINIA STATE BOARD OF EDUCATION, HARRISON COUNTY BOARD OF EDUCATION, WEST VIRGINIA SECONDARY SCHOOL ACTIVITIES COMMISSION, W. CLAYTON BURCH in his official capacity as State Superintendent, DORA STUTLER in her official capacity as Harrison County Superintendent, and THE STATE OF WEST VIRGINIA *Defendants* and LAINEY ARMISTEAD *Defendant-Intervenor.*	Case No. 2:21-cv-00316 Hon. Joseph R. Goodwin

SUPPLEMENTAL DECLARATION OF LAINEY ARMISTEAD IN SUPPORT OF SUMMARY JUDGMENT

I, Lainey I. Armistead, under penalty of perjury, declare as follows:

1. I am a twenty-two-year-old resident of Charleston, West Virginia, in Kanawha County, and have personal knowledge of the information below.

2. I am a junior and female athlete at West Virginia State University (WVSU) in Charleston, West Virginia.

3. Though I am currently completing my sixth semester at WVSU, I have accrued enough credits to fulfill the baccalaureate requirements of my degree.

4. I had originally planned to continue studying at WVSU this fall in order to compete on WVSU's women's soccer team and earn credits towards a master's degree in public policy.

5. But after carefully evaluating my options and plans for the future, I just recently decided to alter course and graduate from WVSU in May of 2022.

6. In August of 2022, I plan to move to Florida and begin law school.

7. Because of the academic rigor and time investment required in law school, I do not currently intend to play soccer on the university's women's soccer team. But I do intend to find a women's soccer club team on which to compete during law school.

8. Soccer continues to be a life passion of mine. I still have three years of NCAA eligibility left at this time and I am open to utilizing that eligibility after law school if the right opportunity presents itself.

9. My experience playing competitive soccer was formative for me. It made me the person I am today, and it was pivotal in helping me earn a college scholarship. Women's sports opened doors for me—including placing me in a position to pursue my dream of being a lawyer someday.

10. Women have worked so hard to be taken seriously on the field of play, and to enjoy the same quality of opportunities as their male counterparts. I want to protect those hard-earned gains for future little girls—including, perhaps, my own future daughters. And that's why I continue to care deeply about this case and will do what's necessary to remain a part of it.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct.

Lainey Armistead

Lainey Armistead

Dated: May 11, 2022

IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF WEST VIRGINIA

B.P.J. by her next friend and mother, HEATHER JACKSON, *Plaintiff*, v. WEST VIRGINIA STATE BOARD OF EDUCATION, et al., *Defendants*, and LAINEY ARMISTEAD, *Defendant-Intervenor*.	Civil Action No. 2:21-cv-00316 Hon. Joseph R. Goodwin

EXPERT REBUTTAL REPORT AND DECLARATION OF DEANNA ADKINS, M.D.

I, Deanna Adkins, M.D., hereby declare as follows:

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

2. I have actual knowledge of the matters stated in this rebuttal report and declaration ("Adkins Rebuttal") and have collected and cite to relevant literature concerning the issues that arise in this litigation in the body of the report. I refer herein to my initial expert report in this matter as "Adkins Report."

3. My credentials are set forth in my initial report executed on January 21, 2022.

4. I reviewed the reports of Dr. Stephen Levine and Dr. James M. Cantor (referred to herein as the "Levine Report" and "Cantor Report" respectively). I respond in this report to some of the central points in those disclosures. I do not specifically address each study or article cited

but instead explain the overall problems with some of the conclusions that Dr. Levine and Dr. Cantor draw and provide data showing why such conclusions are in error. I reserve the right to supplement my opinions if necessary as the case proceeds.

5. I have knowledge of the matters stated in this report and have collected and cite to relevant literature concerning the issues that arise in this litigation in the body of this declaration.

6. In preparing this report, I reviewed the text of House Bill 3293 ("H.B. 3293") at issue in this matter. I also relied on my scientific education and training, my research experience, and my knowledge of the scientific literature in the pertinent fields. The materials I have relied upon in preparing this declaration and expert report are the same types of materials that experts in my field of study regularly rely upon when forming opinions on these subjects. I may wish to supplement these opinions or the bases for them as a result of new scientific research or publications or in response to statements and issues that may arise in my area of expertise.

SEX ASSIGNMENT AND BIOLOGICAL SEX CHARACTERISTICS

7. Dr. Levine does not appear to have any experience with the process of assigning sex to newborns at birth. Despite that lack of experience, he disputes the scientific consensus described in my initial report that the term "biological sex" is imprecise and should be avoided, as the Endocrine Society has advised.[1] Adkins Report ¶ 41; Levine Report ¶¶ 19-20. Dr. Levine

[1] Hembree, Wiley C., et al., Endocrine Treatment of Gender-Dysphoric/Gender-Incongruent Persons: An Endocrine Society Clinical Practice Guideline, J Clin Endocrinol Metab, Vol. 102, Issue 11, 1 November 2017, 3869–3903.; Berenbaum S., et al., Effects on gender identity of prenatal androgens and genital appearance: Evidence from girls with congenital adrenal hyperplasia. J Clin Endocrinol Metab 2003; 88(3): 1102-6; Dittmann R, et al., Congenital adrenal hyperplasia. I: Gender-related behavior and attitudes in female patients and sisters. Psychoneuroendocrinology 1990; 15(5-6): 401-20; Cohen-Kettenis P. Gender change in 46,XY persons with 5alpha-reductase-2 deficiency and 17beta-hydroxysteroid dehydrogenase-3 deficiency. Arch Sex Behav 2005; 34(4): 399-410; Reiner W, Gearhart J. Discordant sexual identity in some genetic males with cloacal exstrophy assigned to female sex at birth. N Engl J Med 2004; 350(4): 333-41.

instead asserts that sex is "determined at conception." Levine Report ¶ 20. His only reference for that claim does not support it, but rather is a one-page, undated handout by the National Institutes of Health ("NIH") Office of Research on Women's Health on the topic of sex and gender influences on health. *Id.*[2] Dr. Levine's repeated assertions that sex is "binary" (*e.g.*, Levine Report ¶ 24) ignore the extensive explanation in my initial report about the many differences of sex development that occur naturally in the population, affecting approximately one out of every 300 births. Adkins Report ¶¶ 47-49. The NIH recognizes "gender minorities" including transgender individuals. Indeed, the NIH has a whole section devoted to research to improve care for these populations as well as to ensure adequate inclusion of these populations in all research. (*See* NIH policy regarding Sexual and Gender Minorities, https://dpcpsi.nih.gov/sgmro.) A paper from Bhargava that Dr. Levine relies on in the Levine Report also goes into great detail about human reproductive development and how many other genes, hormones, and other processes that occur well after conception are necessary for typical male or female reproductive tracts to develop. The paper further supports the conclusion that there is wide variation in presentation of human reproductive organs depending on whether all of these steps occur appropriately. There are scientifically validated tools including the Prader Scale that are used to describe variability in external genitalia of humans at birth. These tools are widely used in endocrinology and urology.

8. In addition, Dr. Levine offers selective references to an NIH requirement to include "sex as a biological variable" in research, Levine Report ¶ 21, and an Endocrine Society statement authored by Bhargava, et al. with observations about applying that requirement. Levine Report ¶¶ 21-22. None of these sources contradict my opinions in this case.

[2] *See id.* (citing National Institutes of Health, Office of Research on Women's Health. *How Sex and Gender Influence Health and Disease*, https://orwh.od.nih.gov/sites/orwh/files/docs/SexGenderInfographic_11x17_508.pdf).

9. Dr. Levine also invokes human brain development and "differences between genders in function studies" to support his claim that sex is a binary concept established at birth, Levine Report ¶ 23, but ignores the literature showing that transgender women share some gender-differentiated brain structures with cisgender women, and that transgender men share some gender-differentiated brain structures with cisgender men. (*See* Bhargava et al. 2021.) Additionally, there are several studies that show an increase in the likelihood of being transgender with certain variations in the androgen receptor, as well as in utero exposure to certain hormones and hormone related medications.

10. Dr. Levine seeks to refute the biological underpinnings for transgender status by reference to supposed changes in incidence of gender dysphoria, changes in the ratio of transgender boys versus girls, alleged "clustering" among friend groups, claims of desistance, and nonscientific labels some individuals use such as gender fluidity. Levine Report ¶¶ 97-102. He also invokes these examples to contest the explanation in my initial report that gender identity is not subject to voluntary change. Adkins Report ¶ 18; *see also* Cantor Report ¶ 13. But the increase in the number of people known to be transgender in no way suggests that people's gender identity can be changed. We are able to see and treat more transgender people now because of increased societal acceptance and improved medical treatments over the past decade. And that some people describe their gender as fluid does not mean that they can change their gender identity. Gender identity—whether cisgender, transgender, or something that does not fall into a binary male or female category—cannot be changed voluntarily or by external factors and is therefore fixed. That some people have changing understandings of their gender identity or express it differently at different times in no way changes that.

11. It is also not the case that there are high numbers of transgender people who "desist" in their transgender identity once they reach puberty. Adolescents with persistent gender dysphoria after reaching Tanner Stage 2 almost always persist in their gender identity in the long-term, whether or not they were provided gender-affirming care.[3] No medical treatment is provided to transgender youth until they have reached Tanner Stage 2. But for pre-pubertal children who may explore transgender identity and later realize that they are not transgender, that does not mean their gender identity is not "fixed" but rather that their understanding of it evolved.

12. Dr. Levine and Dr. Cantor misconstrue my statements in my opening report that differences of sex development help us understand the importance of one's gender identity. Adkins Report ¶¶ 42-47. As I explained, surgical interventions undertaken on children with differences of sex development to supposedly normalize their genital structures, without adequate information about the child's gender identity, have sometimes had disastrous results because gender identity cannot be involuntarily altered. Adkins Report ¶ 46. Dr. Levine asserts that it is "an error to conflate the two distinct concepts." Levine Report ¶¶ 105-107; *see also* Cantor Report ¶¶ 25-26. But my testimony is not that having a difference of sex development and being transgender are the same, but that the similarities in these conditions help demonstrate that gender identity is deeply rooted for people who are transgender or intersex, just as for cisgender people. Dr. Levine suggests that if you identify with a gender other than those that are represented by your chromosomes that you are transgender. Levine Report ¶¶ 109-111. Under that inaccurate premise, all women with complete androgen insensitivity, who have XY chromosomes and cannot sense

[3] Turban JL, DeVries ALC, Zucker K. Gender Incongruence & Gender Dysphoria. In Martin A, Bloch MH, Volkmar FR (Editors): *Lewis's Child and Adolescent Psychiatry: A Comprehensive Textbook*, Fifth Edition. Philadelphia: Wolters Kluwer 2018.

testosterone at all, would also be categorized as transgender. Dr. Levine's theory is erroneous and does not represent my testimony, or the relevant science, on the matter.

13. Although in medicine we endeavor through research and scholarship to learn the causes of various conditions, illness, and diseases, we do not do so to the exclusion of providing decades-long documented safe and efficacious treatment to the patient immediately in front of us. Such is the case with gender-affirming care and patients with gender dysphoria. It is unnecessary for us to know the exact cause of a medical condition before we can provide treatment to alleviate distress and suffering. There are many other conditions in medicine that do not have a known genetic cause, and yet we still provide medical treatments that have been shown for decades to be helpful in treatment as we continue to study and learn more about their precise causes or etiologies These conditions include autism as well as the multitude of different medical issues that affect people with Down syndrome. For example, I would not hesitate to treat someone with Down syndrome who has hyper- or hypo-thyroidism, which is common in this patient population, simply because I did not know the exact explanation or source for the hyper or hypo-thyroidism. In the medical profession, there are well-documented research and clear treatments for autism and Down syndrome, and I do not need to know the exact reason behind the condition before I would use those treatments to save the lives of my patients.

TREATMENT PROTOCOLS FOR GENDER DYSPHORIA

14. Dr. Levine offers a variety of opinions about treatment models for persons who are transgender, Levine Report ¶¶ 34-54, with an emphasis on treatment for prepubertal children. It is worth clarifying that opinions about this population are irrelevant to this case based on my understanding of H.B. 3293, which does not apply to elementary schools, and therefore generally does not affect prepubertal children. Additionally, while the vast majority of Dr. Levine's opinions

appear focused on the appropriate behavioral and medical care for minors with gender dysphoria, H.B. 3293 (which is about sports participation) does not have any effect on those decisions, which are reserved to parents, their children, and their team of medical and mental health care providers.

15. Dr. Levine and Dr. Cantor repeatedly express concerns about the purported lack of mental health evaluation before medical interventions are determined to be medically indicated for adolescents (*e.g.*, Levine Report ¶¶ 73, 83; Cantor Report ¶¶ 14, 19), but this misunderstands the standards of care and how practitioners administer this care. Both the Endocrine Society Clinical Practice Guideline (the "Endocrine Society Guideline") and the World Professional Association of Transgender Health Standards of Care (the "WPATH SOC") require mental health assessments and informed consent processes before any medical treatment is initiated. In my experience treating over 600 youth with gender dysphoria during my tenure at the Duke Center for Child and Adolescent Gender Care (commonly referred to as the Duke Gender Clinic), each patient undergoes a psychological assessment and, if medical interventions are deemed medically appropriate, an extensive informed consent process before such interventions are provided. Any and all decisions about medical care involve not just the adolescent, but also their legal guardians, ensuring that informed consent is provided both by the patient and adults responsible for their care. Additionally, Dr. Cantor's suggestion that gender dysphoric children should be treated *exclusively* with counseling as opposed to any gender affirming medical care underscores his lack of clinical experience in providing any treatment whatsoever to this population. Cantor Report ¶ 17. Cantor's assertion that my opinion about possible outcomes of untreated gender dysphoria misrepresents Spack et al.'s views or conclusions from the 2012 article are also unfounded. *Id*. Dr. Cantor cherry-picked various sentences from the Spack article and strung them together to fit his hypothesis, even going so far as to ignore the clear statement from the article that "Our

observations reflect the Dutch finding that psychological functioning improves with medical intervention and suggests that the patients' psychiatric symptoms might be secondary to a medical incongruence between mind and body, not primarily psychiatric." (Spack, *et al.,* 2012, at 422-23). Finally, Dr. Levine incorrectly and without evidence asserts that the role of psychotherapy in the treatment of gender dysphoria was "downgraded" in the WPATH SOC Version 7. Levine Report ¶¶ 70, 73. Dr. Levine's apparent concern is that if patients are not "required" to undergo psychotherapy for an arbitrary amount of time even when it is clear that medical treatment is indicated, advocates of conversion therapy like himself will be unable to "enable[e] a patient to return to or achieve comfort with the gender identity aligned with his or her biology"—in other words, to not be transgender. The medical community has learned a great deal from the harms inflicted on transgender patients by delaying medical intervention because of the faulty assumption that being transgender was an inherent pathology. Levine Report ¶ 5.

16. Contrary to Dr. Levine's suggestions, providers who treat patients do not encourage any patient to initiate gender-affirming care, nor do they rush patients into medical treatment. *See, e.g.*, Levine ¶¶ 123, 126. Nor does gender-affirming care consist of treatment "on-demand" as Dr. Cantor repeatedly suggests. *See, e.g.*, Cantor Report ¶ 45. Consistent with the WPATH SOC and the Endocrine Society Guideline, each patient in my clinic is met first by mental health providers who explore the patient's medical and mental health history and identity. When following the Standards of Care, no provider rushes any patient into any treatment, much less medical treatment, and no treatment is initiated without the mental health evaluations and a thorough informed consent process for patients and their guardians.

17. Dr. Levine and Dr. Cantor express a view that care should be withheld from adolescents so that they can be encouraged to identify with their birth-assigned sex. This view

contravenes the standard of care; encourages "conversion therapy," which has been widely discredited as unethical and profoundly harmful; and is wholly unsupported by any scientific evidence, as both admit. Levine Report ¶ 49 (admitting that "there is no evidence beyond anecdotal reports that psychotherapy can enable a return" to identifying as one's birth-assigned sex); Cantor Report ¶ 42 (admitting "there has not yet been any such study" that supports withholding care). Additionally, being deprived of access to medically necessary care for gender dysphoria can impose serious and potentially irreversible harms. Many physiological changes that happen during endogenous puberty cause severe distress for patients with gender dysphoria and can be difficult, if not impossible, to reverse with subsequent treatment. Based on my clinical experience, patients with severe dysphoria who are able to receive medically indicated treatment as adolescents experience substantial mental health improvements.

WPATH IS A PROFESSIONAL MEDICAL ORGANIZATION

18. Dr. Levine critiques WPATH because it is "a voluntary membership organization" and "attendance at its biennial meetings has been open to trans individuals who are not licensed professionals." Levine Report ¶ 67. This critique is misplaced, as an organization can both advocate for patients and pursue rigorous scientific research, which WPATH and many other medical associations do. This is not an isolated or new phenomenon in medicine. The American Diabetes Association, for example, is a professional association that both advocates for patients with diabetes and is a scientific organization that conducts research, hosts meetings with open attendance, and reports on developments in the field. Similarly, rigorously researched papers are presented at the WPATH biennial meetings and well-funded scientific scholarship is reported on to other attendees. I have attended many of these meetings and have heard open, collegial and cordial debate. I have not had the experience suggested by Dr. Levine in the last decade, nor has

he, as he has admittedly not been a member of WPATH for more than two decades. Levine Report ¶ 66.

19. Dr. Levine additionally critiques WPATH and its members, claiming, "some current members of WPATH have little ongoing experience with the mentally ill" and recognizing and treating psychiatric comorbidities. Levine Report ¶ 73. In my clinic, as is recommended by the Endocrine Society Guideline, every patient is treated by a multidisciplinary team that includes a social worker, psychologist, psychiatrist, and endocrinologist. The mental health providers are all well-trained faculty and clinicians at Duke University Medical School with years of experience diagnosing and treating mental health conditions. For patients who have other mental health diagnoses, they are treated by a team of mental health providers before medical treatment for gender dysphoria is initiated. Clinic protocol requires written confirmation from the patient's mental health team that any other underlying mental health conditions are well-managed, and the patient is able to begin treatment.

20. Similarly, Dr. Levine asserts that the 2017 Endocrine Society Guidelines are not "standards of care." Levine Report ¶¶ 85-86. Dr. Levine misinterprets my testimony in that the titles of the clinical care recommendations based in the medical literature published by the Endocrine Society are all titled "clinical care guidelines." These guidelines are meant to be useful to providers in this field, and are recommendations from the Endocrine Society to improve care for transgender individuals.

SAFETY AND EFFICACY OF TREATMENTS

Safety and Efficacy of Puberty-Delaying Treatment

21. Puberty blockers have been used to treat patients with gender dysphoria since at least 2004 in the United States. We have almost 20 years of data showing the safety and efficacy

of this treatment for patients with gender dysphoria. We have over 30 years of data about the safety of this treatment based on data from treating children with precocious (i.e., early onset) puberty. Even with all of this supporting data, the Duke Gender Clinic still does not treat patients with a "one-size-fits-all approach" that Drs. Levine and Cantor proclaim exists. Not all patients who are experiencing their endogenous puberty when they present for care at our clinic are indicated for treatment with puberty blockers. This avenue of treatment is a case-by-case decision made with the expertise and thoughtful analysis of the entire multidisciplinary team, and with the patient and their family weighing the risks and benefits of each treatment path.

22. Though Dr. Levine warns throughout his report about delaying puberty, pubertal suppression in transgender youth does not delay puberty beyond the typical age range. Pubertal development has a very wide age variation among individuals. Puberty in individuals assigned male at birth typically begins anywhere from age nine to age 14, and sometimes does not complete until a person's early twenties. For those individuals assigned female at birth, puberty typically occurs sometime within the ages of eight to 17, generally beginning between the ages of eight and 13. Protocols used to treat adolescents with gender dysphoria would tend to put them in the latter third of typical pubertal age ranges but nothing outside of the typical range.[4] Though some peers of a patient on pubertal suppression may undergo pubertal changes earlier than the gender dysphoric patient, many peers will have comparably timed or even later puberty. There is no data to support Dr. Levine's assertion that delaying puberty within these normal age ranges will have negative social and developmental consequences, including Dr. Levine's unsupported claim that

[4] Hembree, W.C., Cohen-Kettenis, P.T., Gooren, L., et al. Endocrine Treatment of Gender-Dysphoric/Gender-Incongruent Persons: An Endocrine Society Clinical Practice Guideline. *The Journal of Clinical Endocrinology & Metabolism*. 2017; 102(11): 3869-903; Euling, S.Y., Herman-Giddens, M.E., Lee, P.A., et al. Examination of U.S. Puberty-Timing Data from 1940 to 1994 for Secular Trends: Panel Findings. *Pediatrics*. 2008; 121 (Supplemental 3): S172-S191.

transgender youth will experience psychosocial harms from their purportedly delayed puberty. Levine Report ¶ 192. Contrary to the suggestions by Dr. Cantor and Dr. Levine, my clinical experience has shown that adolescents who access needed gender-affirming medical treatment have improved social and romantic relationships and are able to develop positive peer relationships with cisgender and transgender people alike.

23. Dr. Levine claims that patients treated with puberty-delaying medication will experience a range of health consequences. Levine Report ¶¶ 185-94. For example, he says that patients treated with puberty suppressants will be at an elevated risk of lower bone density. Levine Report ¶ 186. During the course of treatment, patients may have reduced bone mineral density, but after two years on hormone therapy, their bone structure and strength generally matches that of cisgender people who went through the same puberty. This has been shown in research[5] and has also been my experience with patients. Additionally, studies have shown no changes in bone mineralization among patients with central precocious puberty treated with pubertal suppression for a period of four years.[6] As with all of the risks of puberty suppression, the risks related to bone mineralization and the state of the evidence are discussed extensively with patients and their parents during the informed consent process.

24. Dr. Levine's claim that brain development occurring during puberty is negatively affected by pubertal suppression is not accurate. Levine Report ¶ 187. Patients with gender dysphoria who are treated with puberty-delaying medication undergo hormonal puberty with all

[5] van der Loos, M.A., Hellinga, I., Vlot, M.C., et al. Development of Hip Bone Geometry During Gender-Affirming Hormone Therapy in Transgender Adolescents Resembles That of the Experienced Gender When Pubertal Suspension Is Started in Early Puberty. *Journal of Bone and Mineral Research*. 2021; 36(5): 931-41. doi: https://doi.org/10.1002/jbmr.4262.

[6] Park, H.K., Lee, H.S., Ko, J.H., et al. The effect of gonadotrophin-releasing hormone agonist treatment over 3 years on bone mineral density and body composition in girls with central precocious puberty. *Clinical Endocrinology*. 2012; 77(5): 743-48.

the same brain and other bodily system development.[7] Dr. Levine's claim is inaccurate for the additional reason that some people never go through hormonal puberty, such as patients with Turner Syndrome, and still have normal brain development with respect to cognition and executive function. His claim also seems to imply that youth with gender dysphoria have their puberty delayed beyond the typical age range, but, as I discussed above, this is not accurate. He also implies that gender dysphoric youth treated with pubertal suppression remain on puberty blockers longer than those treated for precocious puberty. Levine Report ¶ 184. This is also not accurate. The longest period of time that my patients with gender dysphoria are treated with pubertal suppression before the introduction of pubertal hormones is approximately three years. By contrast, many patients with precocious puberty are treated with pubertal suppression for five to seven years.

25. As I explained in my initial report, Adkins Report ¶ 30, puberty-delaying medication simply pauses development at the stage it has reached at the time treatment is initiated. On its own, pubertal-delaying medication has no permanent effects on the maturation of sexual organs. For patients treated with puberty blockers who do not go on to gender-affirming hormones, once they stop taking blockers, puberty—including maturation of sexual organs—resumes. Dr. Levine's concerns about potentially diminished sexual response are also misplaced. Levine Report ¶ 199. For transgender women on estrogen who experience sexual side effects from the treatment, these are effectively managed through dosing as well. None of these side effects are inevitable, unmanageable, or unique to this treatment, and all potential side effects are discussed with patients

[7] Staphorsius, A. S., Kreukels, B. P., Cohen-Kettenis, P. T., et al. Puberty suppression and executive functioning: An fMRI-study in adolescents with gender dysphoria. *Psychoneuroendocrinology*. 2015; 56: 190-99. doi: https://doi.org/10.1016/j.psyneuen.2015.03.007.

during the informed consent process required to initiate treatment. And, in my experience, many patients experience no side effects whatsoever from treatment, and instead experience exactly their intended effect: the diminishment of distress caused by untreated gender dysphoria. There is also data that shows that the majority of transgender individuals see an improvement in their sexual satisfaction after gender-affirming care.

26. Dr. Levine's theories about the unknown impact of puberty blockers on fertility and the supposed "irreversibility" of this treatment are again uninformed. Levine Report ¶¶ 179, 180, 185. In addition to treating precious puberty and gender dysphoria, puberty blockers are used to *preserve* gonadal function and ensure fertility when patients undergo gonadotoxic treatments. For example, puberty blockers have been shown to protect gonadal function and preserve fertility in patients undergoing cancer and rheumatologic treatment.[8] Puberty delaying medication is supported as the standard of care to preserve fertility in oncology patients who may undergo gonadal injuring treatments. When patients are no longer undergoing this treatment, their natal gonads resume their normal function and development. It is precisely for this reason, and for the decades of safe and efficient use of these treatments for children with precocious puberty that puberty blockers are relied upon as the least invasive intervention for medical treatment of gender dysphoria.

27. An additional claim by Dr. Levine that lacks evidentiary bases is that an "irreversible" and "inevitable" outcome of the administration of puberty blockers is the later use

[8] Int J Rheum Dis. 2018 Jun ; 21(6):1287-1292. doi: 10.1111/1756-185X.13318.
Effect of a gonadotropin-releasing hormone analog for ovarian function preservation after intravenous cyclophosphamide therapy in systemic lupus erythematosus patients: a retrospective inception cohort study; nt J Mol Sci 2020 Oct 21;21(20):7792. doi: 10.3390/ijms21207792.
Advances in the Treatment and Prevention of Chemotherapy-Induced Ovarian Toxicity
Hyun-Woong Cho, et al.

of hormone therapy. In contrast to Dr Levine's baselessly imagined world of unethical medical professionals, in actual medical practice in actual medical clinics like mine, no treatment is decided in advance for every single patient, and that is a foremost standard of care. While the majority of my patients who undergo puberty delaying treatment do go on to initiate hormone therapy, some do not. Dr. Levine' imbedded premise is that puberty blockers work as a cause-and-effect mechanism for later use of hormone therapy, but that misses reality entirely, when the cause for any medical treatment is the appropriate management of gender dysphoria with the goal of finding the best treatment possible for each patient, without a predetermined idea of what that will be.

28. Finally, Dr. Levine makes it appear as if the Endocrine Society has significant reservations about puberty-delaying treatment by again misquoting and misrepresenting quoted portions of the 2017 Guidelines. Levine Report ¶¶ 87, 188. To begin with, Dr. Levine asserts that on page 3872, the Guidelines "go no further than 'suggest[ing]' use of puberty blockers." *Id.* ¶ 87. This quote can be found nowhere on page 3872. Instead, in the abstract section labeled "Conclusion" beginning on the first page of the Guidelines (3869) and continuing onto page 3870 is the direct quote "We ***recommend*** treating gender-dysphoric/gender-incongruent adolescents who have entered puberty at Tanner Stage G2/B2 by suppression with gonadotropin-releasing hormone agonists." (emphasis added). Levine then goes on to quote several disconnected sentences from the Guidelines out of context as support for his wholly unsupported hypothesis that there is a "negative impact" on brain development of adolescents treated with puberty delaying medication. Levine Report ¶¶ 187-88. Notably, while Dr. Levine offers no insight about the impact of the anxiety, depression, and overall distress caused by untreated gender dysphoria on adolescent brain development, he maintains that the Guidelines support his unsubstantiated hypothesis by "acknowledging as much." Levine Report ¶ 188. The Guidelines do no such thing; instead they

merely acknowledge the data existing at the current moment, and like any field of medicine, the need for additional study and information. For example, Dr. Levine's first out of context quote ignores the Guidelines' following statements from the same page that "[i]nitial data in GD/gender-incongruent subjects demonstrated *no change* of absolute areal BMD [bone mineral density] during 2 years of GnRH analog therapy but a decrease in BMD z scores." The Guidelines also note, and Levine omits, that "[r]esearchers reported normal BMD z scores at age 35 years in one individual who used GnRH analogs from age 13.7 until age 18.6 years before initiating sex hormone treatment." Additionally, Dr. Levine leaves out the entire first half of the sentence before his reference to "animal data," from page 3883, which in complete form states that "[a] single cross-sectional study demonstrated no compromise of executive function." Regardless of Dr. Levine's mischaracterizations of the purpose or words of the Endocrine Society Guidelines, in the five years since they were published, additional research has been completed by clinicians and researchers in the area, resulting in findings like those recently included in a study in the Best Practice & Research Clinical Endocrinology and Metabolism: "With more than 30 years of experience, we can affirm that GnRHa treatment is safe. The most frequently documented side effects are headaches and hot flashes."[9]

Safety and Efficacy of Hormone Therapy

29. Dr. Levine expresses concern that the evidence supporting hormone therapy for treatment of gender dysphoria is graded as low quality. Levine Report ¶¶ 144-47. It is common that standard treatments in medicine generally, and endocrinology specifically, receive reviews that the quality of evidence is "low" or "very low" because of the evidence available at the moment

[9] Leandro Soriano-Guillén, Jesús Argente, Central precocious puberty, functional and tumor-related, Best Practice & Research Clinical Endocrinology & Metabolism, Volume 33, Issue 3, 2019, 101262, ISSN 1521-690X, https://doi.org/10.1016/j.beem.2019.01.003.

a review is conducted and because of the limited and rigid definitions of "evidence" used by the reviewing organizations. For example, the Endocrine Society also has a Clinical Practice Guideline for the Treatment of Pediatric Obesity which was released the same year as the Endocrine Society Guideline for the Treatment of Gender Dysphoric Persons. In the Pediatric Obesity Guideline, the Guideline's strong recommendation for the prevention of obesity is that clinicians prescribe "healthy eating habits"—an obviously time-tested and well-founded recommendation—but this recommendation has a "very low" quality rating of the evidence—just like puberty blockers. Similarly, the Cochrane Database of Systemic Reviews on which Dr. Levine relies has similar levels of evidence for treatments that are standard of care in medicine. For example, in 2021 the Cochrane Database provided a review of "early versus delayed appendectomy for abscess." Despite appendectomies being one of the oldest and most common surgical procedures completed on children in the United States, the Cochrane Review looked at 66 years' worth of study and research and found just two studies with 80 total patients that were acceptable for their review and from that data deemed that the evidence is "of very low quality." (Cochrane Database 2017).

30. Finally, Dr. Levine's assertion that random control trials are necessary in order to establish any worthwhile science on the safe and effective medical treatment for gender dysphoria is unethical. When withholding treatment is more dangerous (likely to result in death or injury) than providing that treatment, clinicians will, with informed consent and appropriate screening mechanisms, use that treatment even if the amount of evidence supporting the treatment is not vast. In the case of gender-affirming hormone therapy, available data supports that these treatments lower suicide attempts and suicidal ideation as much as four-fold. When combined with the fact that the second leading cause of death in all adolescents is suicide, there are ample

reasons to utilize this treatment pathway even if evidence does not meet the stringent levels of the Cochrane Review. Significantly, there are no reported deaths in youth from receiving puberty blockers or hormone therapy. Given that withholding this care increases the likelihood of death, it is unethical to do so in order to perform a randomized control trial ("RCT"). RCTs are only ethically performed between treatments that are at equal in treating a condition. Providing gender-affirming care to transgender young people and not providing it are not equal in treating the condition, as decades of evidence of the death of transgender individuals before gender-affirming hormone treatments were available demonstrate.

31. Dr. Levine warns of risks of infertility related to gender-affirming hormone therapy, Levine Report ¶ 197, but many transgender individuals conceive children both during and after undergoing hormone therapy.[10] Pregnancy among trans men after undergoing testosterone therapy is very common.[11] A recent eight-year study found that four months after stopping testosterone treatment, transgender men had comparable egg yields to non-transgender women.[12] Going directly from pubertal suppression to gender-affirming hormones does affect fertility. For these patients, and any patients treated with estrogen, who are concerned about the impact of estrogen

[10] Light A.D., Obedin-Maliver J., Sevelius J.M., et al. Transgender men who experienced pregnancy after female-to-male gender transitioning. *Obstetrics Gynecology*. 2014; 124(6): 1120-27; Maxwell S., Noyes N., Keefe D., Berkeley A.S., et al. Pregnancy Outcomes After Fertility Preservation in Transgender Men. *Obstetrics Gynecology*. 2017; 129(6):1031-34; Neblett M.F. & Hipp H.S. Fertility Considerations in Transgender Persons. *Endocrinology and Metabolism Clinics*. 2019; 48(2): 391-402.

[11] See, *e.g.*, Moseson, H., Fix, L., Hastings, J., et al. Pregnancy intentions and outcomes among transgender, nonbinary, and gender-expansive people assigned female or intersex at birth in the United States: Results from a national, quantitative survey. *International Journal of Transgender Health*. 2020; 22(1-2): 30-41. doi: .

[12] Leung, A., Sakkas, D., Pang, S., et al. Assisted reproductive technology outcomes in female-to-male transgender patients compared with cisgender patients: a new frontier in reproductive medicine. *Fertility and Sterility*. 2019; 112(5): 858-65.

on fertility, fertility preservation remains a viable option we communicate to patients. More generally, many medical interventions necessary to preserve a person's health and well-being can impact an individual's fertility, but as with virtually every decision in medicine, we carefully weigh the risks and the benefits of treatment and proceed with the treatment after informed consent.

32. Dr. Levine asserts that transgender people "most likely [] require regular administration of hormones for the rest of their lives." Levine Report ¶ 129. Some patients may take hormones for some number of years and then decide to discontinue the treatment if dysphoria is well-managed. For those who do remain on maintenance doses of hormone therapy for their lifetime, the risks of ongoing hormone therapy can be well-managed and are not unlike risks associated with those present for other patients who undergo long-term hormone therapy for different conditions like hypothyroidism, Kleinfelter's Syndrome, Turner Syndrome, or hypopituitism. Generally, in endocrinology, our treatment goals for all patients are to maintain hormone levels at the range of normal human physiology, regardless of a person's chromosomes, reproductive anatomy, or gender identity. When this is done, the body knows no difference in the source of the hormones and functions in normal physiologic fashion, regardless of whether the patient is cisgender or transgender.

33. Ultimately, Dr. Levine's and Dr. Cantor's reports reveal a central opinion is that it is not healthy to be transgender and that government policies and medical practice should undertake efforts to make people not transgender (*i.e.*, use endless psychotherapy to encourage people to live in accordance with their assigned sex at birth rather than their gender identity, deny them medical treatment when it is indicated, ignore their distress unless science and medicine is 100 percent certain there is no possible risk to any intervention). This approach to the management of any condition is counter to medicine and science overall. And attempts to "treat" transgender

people in this manner is historically well-known to be not only entirely ineffective, but to be extremely harmful and is considered unethical by every major medical association.[13] My clinical experience and the peer-reviewed literature overwhelmingly demonstrate that gender-affirming medical care drastically improves the health and well-being of adolescents with gender dysphoria for whom the care is medically indicated.

[13] American Academy of Child & Adolescent Psychiatry. Conversion Therapy. 2018. https://www.aacap.org/AACAP/Policy_Statements/2018/Conversion_Therapy.aspx; American Medical Association. Health care needs of lesbian, gay, bisexual and transgender populations. H-160.991. 2017. https://policysearch.ama-assn.org/policyfinder/detail/H-160.991%20?uri=%2FAMADoc%2FHOD.xml-0-805.xml/

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

Executed on this 10th day of March 2022.

Deanna Adkins, M.D.

DUKE UNIVERSITY MEDICAL CENTER

CURRICULUM VITAE

Date Prepared: January 21, 2022

Name:	Deanna Adkins, BS, MD
Primary Academic Appointment:	Associate Professor of Pediatrics, Career Track
Primary Academic Department :	Pediatrics
Secondary Appointment :	n/a
Present Academic Rank and Title :	Associate Professor
Date and Rank of First Duke Faculty Appointment:	July 1, 2004 Clinical Associate
Medical Licensure:	Since March 15, 2001
License #:	200100207 NC
Date:	06/29/2022 expires
Specialty Certification(s) and Dates:	10/16/2001-2018 General Pediatrics 8/18/2003 and current-Pediatric Endocrinology
Date of Birth:	06/29/1970
Place:	Albany, GA USA
Citizen of:	USA
Visa Status:	n/a

Education	Institution	Date (Year)	Degree
High School	Tift County High School	1988	Graduated with High Honors
College	Georgia Institute of Technology	1993	BS Applied Biology/Genetics High Honors

Education	Institution	Date (Year)	Degree
Graduate or Professional School	Medical College of Georgia	1997	MD

Professional Training and Academic Career

Institution	Position/Title	Dates
University of North Carolina Hospitals, Chapel Hill, North Carolina	Pediatrics Resident	1997-2000
University of North Carolina Hospitals, Chapel Hill, North Carolina	Pediatric Endocrine Fellow	2000-2004
Duke University Medical Center, Durham, North Carolina	Clinical Associate/Medical Instructor	2004-2008
Duke University Medical Center, Durham, North Carolina	Assistant Professor Track IV	2008-2020
Duke University Medical Center, Durham, North Carolina	Fellowship Program Director Pediatric Endocrinology- Associate PD-	2008-2010 & 2014-12/2019 2010-2014
Duke University Medical Center, Durham, North Carolina	Director Duke Child and Adolescent Gender Care Clinic	July 2015-present
Duke University Medical Center, Durham, North Carolina	Medical Director-Duke Children's Specialty of Raleigh	3/2017-1/2022
Duke University Medical Center, Durham, North Carolina	Associate Professor Pediatrics	1/2020-present
Duke University Medical Center, Durham, North Carolina	Co-Clinical Lead Duke Sexual and Gender Wellness Program	10/2021-present

Publications
Refereed Journals

Original Manuscripts:

1. Zeger M, **Adkins D**, Fordham LA, White KE, Schoenau E, Rauch F, Loechner KJ. " Hypophosphatemic rickets in opsismodysplasia," J Pediatr Endocrinol Metab. 2007 Jan;20(1):79-86. PMID: 17315533

2. Worley G, Crissman BG, Cadogan E, Milleson C, **Adkins DW**, Kishnani PS "Down Syndrome Disintegrative Disorder: New-Onset Autistic Regression, Dementia, and Insomnia in Older Children and Adolescents With Down Syndrome".. J Child Neurol. 2015 Aug;30(9):1147-52. doi: 10.1177/0883073814554654. Epub 2014 Nov 3.PMID:25367918

3. Tejwani R, Jiang R, Wolf S, **Adkins DW**, Young BJ, Alkazemi M, Wiener JS, Pomann GM, Purves JT, Routh JC**,"** Contemporary Demographic, Treatment, and Geographic Distribution Patterns for Disorders of Sex Development".Clin Pediatr (Phila). 2017 Jul 1:9922817722013. doi: 10.1177/0009922817722013. PMID:28758411

4. Lapinski J1, Covas T2, Perkins JM3, Russell K4, **Adkins D** 5, Coffigny MC6, Hull S7. "Best Practices in Transgender Health: A Clinician's GuidePrim Care". 2018 Dec;45(4):687-703. doi: 10.1016/j.pop.2018.07.007. Epub 2018 Oct 5. PMID: 30401350 DOI: 10.1016/j.pop.2018.07.007

5. Paula Trief, Nicole Foster, Naomi Chaytor, Marisa Hilliard, Julie Kittelsrud, Sarah Jaser, Shideh Majidi, Sarah Corathers, Suzan Bzdick, **Adkins DW**, Ruth Weinstock; "Longitudinal Changes in Depression Symptoms and Glycemia in Adults with Type 1 Diabetes", Diabetes Care; 2019 Jul;42(7):1194-1201. doi: 10.2337/dc18-2441. Epub 2019 May; PMID: 31221694

6. Mann, Courtney M., Kristen Russell, Alexy Hernandez, Nicole Lucas, Erik Savereide, Dane R. Whicker, **Deanna W. Adkins**, Nancy L. Zucker, Raye Dooley, and Bryce B. Reeve. "**Concept elicitation for the development of quality measures in transgender health**." In *Quality of Life Research*, 28:S104–S104. SPRINGER, 2019.

7. M. Hassan Alkazemi, MD, MS, Leigh Nicholl, MS, Ashley W. Johnston, MD, Steven Wolf, MS, Gina-Maria Pomann, PhD, Diane Meglin, MSW**, Deanna Adkins, MD**, Jonathan C. Routh, MD, MPH; Community Perspectives on Difference of Sex Development (DSD) Diagnoses: a Crowdsourced Survey, 2020 Jun;16(3):384.e1-384.e8. doi: 10.1016/j.jpurol.2020.03.023. Epub 2020 Apr 27.PMID: 32409277

8. McGuire H, Frey L, Woodcock LR, Dake E, Carl A, Matthews D, Russell K, **Adkins DA** "Differences in Patient and Parent Informant Reports of Depression and Anxiety Symptoms in a Clinical Sample of Transgender and Gender Diverse Youth" LGBT Health 2021-LGBT Health. Aug-Sep 2021;8(6):404-411. doi: 10.1089/lgbt.2020.0478. Epub 2021 Aug 12

9. Lund A, **Adkins DA**, Simmons C*, "*Simulation-Based Teaching to Improve Perioperative Care of Transgender Patients*"*. In press. Clinical Simulation in Nursing

Non Author publications

1. Turner DA, Curran ML, Myers A, Hsu DC, Kesselheim JC, Carraccio CL and the Steering Committee of the Subspecialty Pediatrics Investigator Network (SPIN). Validity of Level of Supervision Scales for Assessing Pediatric Fellows on the Common Pediatric Subspecialty Entrustable Professional Activities. *Acad Med*. 2017 Jul 11. doi: 10.1097/ACM.0000000000001820. PMID:28700462
2. Mink R, Carraccio C, High P, Dammann C, McGann K, Kesselheim J, Herman B. Creating the Subspecialty Pediatrics Investigator Network (SPIN). Creating the Subspecialty Pediatrics Investigator Network Richard Mink, MD, MACM1, Alan Schwartz, PhD2, Carol Carraccio, MD, MA3, Pamela High, MD4, Christiane Dammann, MD5, Kathleen A. McGann, MD6, Jennifer Kesselheim, MD, EdM7, J Peds 2018 Jan;192:3-4.e2. PMID: 29246355 DOI: 10.1016/j.jpeds.2017.09.079
3. Erratum 2018. PMID: 29246355 DOI: 10.1016/j.jpeds.2017.09.079
4. Mink RB[1], Myers AL, Turner DA, Carraccio CL. Competencies, Milestones, and a Level of Supervision Scale for Entrustable Professional Activities for Scholarship. Acad Med. 2018 Jul 10. doi: 10.1097/ACM.0000000000002353. [Epub ahead of print] PMID: 29995669 DOI:10.1097/ACM.0000000000002353 Mink RB, Schwartz A, Herman BE,

Editorials

a. Editorial Charlotte News and Observer-"**NC pediatric specialists say HB2 'flawed' and 'harmful,' call for repeal**"; April 18, 2016; authors: Deanna Adkins, Ali Calikoglu, Nina Jain, Michael Freemark, Nancie MacIver, Robert Benjamin, Beth Sandberg, etc.
b. Editorial Raleigh News and Observer-"**Beverly Gray: Repeal HB2"** May 2016: authors Beverly Gray, Deanna Adkins, Judy Sidenstein, Jonathan Routh, Haywood Brown, Clayton Afonso, William Meyer, Kristen Russell, Caroline Duke, Nancy Zucker, Kevin Weinfurt, Jennifer St. Claire, Angela Annas, Katherine Keitcher

Chapters in Books

1. Endocrinology Chapter writer and editor in **Fetal and Neonatal Physiology for the Advanced Practice Nurse**; Editors: Amy Jnah DNP, NNP-BC, Andrea Nicole Trembath MD, MPH, FAAP. December 21, 2018 ISBN-10 0826157319
2. Chapter in **Dental Clinics of North America Adolescent Oral Health Edition** Understanding and Caring for LGBTQ+ Youth for the Oral Health Care Provider; Authors Joshua Raisin, DDS, Deanna Adkins MD, Scott B. Schwartz, DDS, MPH. 2021
3. Intersex Identity and Gender Assignment; **Encyclopedia of Adolescent Health**; Editor Brian Eichner, MD; Author Deanna Adkins MD 2021-pending

Selected Abstracts:

1. Redding-Lallinger RC, **Adkins DW,** Gray N: The use of diaries in the study of priapism in sickle cell disease. Poster Abstract in Blood November 2003
2. **Adkins, D.W.** and Calikoglu, A.S.: Delayed puberty due to isolated FSH deficiency in a male. Pediatric Research Suppl. 51: Abstract #690. page 118A, 2004
3. Zeger, M.P.D**., Adkins, D.W.,** White, K., Loechner, K.L.: Opsismodysplasia and Hypophosphatemic Rickets. Pediatric Research Suppl.-from PAS 2005
4. Kellee M. Miller[1], David M. Maahs[2]**, Deanna W. Adkins[3]**, Sureka Bollepalli[4], Larry A. Fox[5], Joanne M. Hathway[6], Andrea K. Steck[2], Roy W. Beck[1] and Maria J. Redondo[7] for the T1D Exchange Clinic Network; Twins Concordant for Type 1 Diabetes in the T1D Exchange -poster at ADA scientific sessions 6/2014
5. Laura Page, MD; Benjamin Mouser, MD; Kelly Mason, MD; Richard L. Auten, MD; **Deanna Adkins, MD** CHOLESTEROL SUPPLEMENTATION IN SMITH-LEMLI-OPITZ: A Case of Treatment During Neonatal Critical Illness; - poster 06/2014
6. Lydia Snyder**, MD, Deanna Adkins, MD,** Ali Calikoglu, MD; Celiac Disease and Type 1 Diabetes: Evening of Scholarship UNC Chapel Hill 3/2015 poster
7. **Deanna W. Adkins, MD,** Kristen Russell, LCSW, Dane Whicker, PhD, Nancy Zucker, Ph. D**:** Departments of Pediatrics and Psychiatry, Duke University Medical Center*;* Evaluation of Eating Disturbance and Body Image Disturbance in the Trans Youth Population; WPATH International Scientific Meeting June 2016; Amsterdam, The Netherlands

8. Rohit Tejwani**, Deanna Adkins,** Brian J. Young, Muhammad H. Alkazemi,Steven Wolf[3], John S. Wiener, J. Todd Purves, and Jonathan C. Routh; Contemporary Demographic and Treatment Patterns for Newborns Diagnosed with Disorders of Sex Development; Poster presentation at AUA meeting 2016
9. S.A. Johnson, **D.W. Adkins,** Case Report: The Co-diagnosis of Hypopituitarism with Klinefelter in a patient with short stature; Pediatric Academic Society Meeting 2018
10. Lapinski J, Dooley R, Russell K, Whicker D, Gray, B**, Adkins DW; Title:** Developing a Pediatric Gender Care Clinic at a Major Medical Setting in the South; Workshop Philadelphia Trans Wellness Conference 2018
11. Jessica Lapinski, DO, Deanna Adkins, MD, Tiffany Covas, MD, MPH, Kristen Russell, MSW, LCSW; An Interdisciplinary Approach to Full Spectrum Transgender Care; WPATH Conference Buenos Aires, Argentina, November 3, 2018
12. Leigh Spivey, MS, Nancy Zucker, PhD, Erik Severiede, B.S., Kristen Russell, LCSW, Deanna Adkins, MD; USPATH Washington, DC Sept. 2019. Platform presentation; "Psychological Distress Among Clinically Referred Transgender Adolescents: A latent Profile Analysis"

Non-Refereed Publications

i. Print
   i. Editorial Charlotte News and Observer-"**NC pediatric specialists say HB2 'flawed' and 'harmful,' call for repeal**"; April 18, 2016
   ii. Editorial News and Observer-HB2 May 2016 -"**Beverly Gray: Repeal HB2"** May 2016

ii. Digital
   i. Supporting and Caring for Transgender Children-HRC guide 2017
   ii. Initial endocrine workup and referral guidelines for primary care Providers-Pediatric Endocrine Society Education Committee Website Publication
   iii. Only Human Podcast August 2, 2016; https://www.wnycstudios.org/podcasts/onlyhuman/episodes/id-rather-have-living-son-dead-daughter

iii. Media and Community Interviews
   i. Greensboro News and Record Community Forum October 2017-*Transgender Panel Moderator*
   ii. Playmakers Repertory Company-Chapel Hill: *Draw the Circle* Transgender Community Panel 2017
   iii. Duke Alumni Magazine
   iv. Duke Stories
   v. DukeMed Alumni Magazine
   vi. NPR Podcast Only Human piece on caring for transgender youth and follow up piece 1 year later
   vii. ABC11, WRAL, WNCN News Coverage
   viii. News and Observer: Charlotte and Raleigh
   ix. Duke Chronicle and Daily Tarheel Article
   x. Huffington Post Article

xi. https://www.businessinsider.com/the-olympics-uses-testosterone-to-treat-trans-athletes-like-cheaters-2021-7
xii. https://www.wral.com/top-transgender-doctor-warns-teen-treatment-ban-could-be-deadly/19618762/
xiii. http://www.ncpolicywatch.com/2021/04/07/experts-bills-targeting-trans-people-get-the-science-wrong/

Published Scientific Reviews for Mass Distribution

Position and Background Papers

Other Publications

Editorial Experience

Editorial Boards
Ad Hoc scientific review journals
Hormone Research, Lancet, NC Medical journal, Journal of Pediatrics, Pediatrics, Transgender Health, International Journal of Pediatric Endocrinology, Journal of Adolescent Health

Consultant Appointments

North Carolina Newborn Screening Committee
Human Rights Campaign Transgender Youth Advisory Board

Scholarly Societies

Professional Awards and Special Recognitions

ESPE Fellows Summer School, 2001
NIH Loan Repayment Program Recipient
Lawson Wilkins AstraZeneca Research Fellow, 2003-2004
HEI 2017 Leaders in LGBTQ Healthcare Equality
Inside Out Durham Appreciation Award
Duke Health System Diversity and Inclusion Award January 2018
America's Top Doctor's 2020, 2021
Duke Health System Diversity and Inclusion Award January 2020- CDHD Course Team
Teaching for Equity Fellow 2021

Organizations and Participation

Organization	Role	Dates
American Academy of Pediatrics	Member Council on Information Technology Member Reviewer COCIT Member Section on Endocrinology	1998 to present 2004 to present
Pediatric Endocrine Society	Member Member Education Committee SIG member-Transgender, DSD, liaison to Advocacy SIG Writer Web Publication for Pediatricians	2000 to present
NC Pediatric Society	Member	1998 to present
Endocrine Society	Member	2000 to present
WPATH-International Transgender Society	Member	2014 to present

External Support

Approximate Duration	PI	% Effort	Purpose	Amount Duration
Past	JAEB Center-Deanna Adkins	0.5%	Type 1 diabetes research	$ 5yr
Past	Josiah Trent Foundation Grant-Deanna Adkins	0.5%	Transgender and eating disorder research	$5000 3 yr
Pending: Submitted	NIH-Kate Whetten	0.1%	Analysis of TransgenderHealth in Adolescents in Rural Africa, India, and Thailand	Consultant

Approximate Duration	PI	% Effort	Purpose	Amount Duration
Re-Submitting June 2022	NIH R21 Deanna Adkins	2%	Development of New Gender Dysphoria Measures in Youth	Co PI
ReSubmitting February 2022	NIH R21 Sarah Legrand	2%	Glow and Grow	consultant
Submitted November 2020	CMS-Deanna Adkins and Rob Benjamin	1%	Innovations Grant	Co PI 3 yrs
Gifts	Private Family		Multiple including leadership training initiatives as well as other LGBTQ work	Approx. $18,000 Unlimited duration

Mentoring Activities

Faculty	
Fellows, Doctoral, Post docs	**Nancie MacIver-fellow**
	Dorothee Newbern-fellow
	Krystal Irizarry-fellow
	Kelly Mason-fellow
	Laura Page-fellow
	Elizabeth Sandberg fellow UNC
	Dane Whicker-psychology post doc **Leigh Spivey-psychology post doc** **Joey Honeycutt, Chaplain Intern** **Kathryn Blew-research mentor**
Residents	**Yung-Ping Chin-mentor**
	Kristen Moryan-mentor
	Jessica Lapinski-mentor
	Kathryn Blew-research mentor
	Matthew Pizzuto, Briana Scott-Coach, Laura Hampton Coach

Medical students	**Tulsi Patel-continuity clinic mentor** **Ernest Barrel-continuity clinic mentor** **Sonali Biswas-research mentor 3rd year project** **Katha Desai-research mentor 3rd year project**
Undergraduates High School Students	**Erik Severeide-Duke University** **Lindsay Carey-Dickinson College** **Jeremy Gottleib-Duke University** **Jay Zussman-Duke University** **Aeryn Colton-Intern Apex High School**
Graduate Student MBS program	**Nicholas Hastings**
UNC Gillings School of Public Health MPH students	**Lauren Frey, Emily Dake, Alexandra Carle, Lindsay Woodcock, Hunter McGuire**
Nurse Practioners	**ECU, Duke-multiple**
DNP candidates Pediatric Dental Fellow UNC	**Ethan Cicero-PhD committee member** **Amanda Lund-PhD committee member** **Joshua Raisin-research associate**

Education / Teaching Activities
Didactic classes

High School

c. Cary Academy: Work Experience Program 2021

Undergraduate

1. Creating Excellence and Ambulatory Nursing 2008
2. Profile in Sexuality Research Series at Duke CGSD 2016
3. Duke School of Nursing BSN Course on Sexual and Gender Health guest lecturer: fall 2017, spring 2018, fall 2018, spring 2019, fall 2019, spring 2020, fall 2020, spring 2021, fall 2021
4. Duke School of Nursing Lecture on Transgender Care-recorded for reuse
5. Duke Physician Assistant Program guest lecturer; fall 2017, spring 2018
6. Duke Global Health Course guest lecturer fall 2016
7. Duke Neuroscience course on Gender and Sex guest lecturer fall 2016
8. Duke Ethics Interest group guest lecturer fall 2018, 2020
9. Duke EMS group lecture fall 2018
10. Duke Physician Assistant Program LGBTQ+ Rotation Educator 2019 to present
11. Global Health Sexual and Gender Minority Seminar Lecturer 2020

UME:

1. Cultural Determinants of Health and Health Disparities Course: Facilitator and developed one class; 2017-18 and 2018-19, 2019-20, 2020-21, 2021-22; Steering Committee member for course development
2. UNC School of Medicine Lecturer for LGBTQ Health series 2016-recorded for reuse
3. Duke Pediatrics Interest Group lecture Nov 2020
4. Duke Med Pediatrics Interest Group lecture fall 2018, 2020
5. Lecturer Body and Disease Course MS1 2019, 2020, 2021 Clinical Correlation Differences of Sex Development
6. Lecturer Body and Disease Course MS1 2020, 2021 Transgender Medicine
7. Lecture on Cancer in Transgender and Intersex Individuals April 14, 2021 Mount Sinai School of Medicine
8. Lecture on Transgender Medicine Univ. of Tenn. Health Science Center School of Medicine May 7,2021

Graduate School Courses:

1. Master of Biomedical Science Program-guest lecturer on Transgender Medicine fall 2016
2. School of Nursing Graduate Intensive Course Lecturer on Sexual and Gender Health; fall 2017, spring 2018, fall 2018, spring 2019, Fall 2019
3. Fuqua School of Business Med Pride Panel and presentation fall 2017
4. Master of Biomedical Science Program Mentor 2019-2020
5. Endocrinology for Nurse Practioners Duke Neonatal Nurse Practioner Program August 2021

DUHS Employee Education

1. Annual Duke Human Resources Lunch and Learn on Gender Diversity 2016, 2017, 2018
2. Over 100 lectures across the institution on gender including CHC front desk/nursing staff, hospital wide social work/case management, radiology, PDC clinic front desk/nursing staff
3. Steering Committee for Sexual and Gender Identity Epic Module development and Educational module development
4. DCRI Pride invited speaker
5. Duke Children's staff update 2021

GME:

1. Adult Endocrinology Fellows every year on growth and/or gender
2. Pediatric Residency Noon conferences on Growth and Gender-yearly
3. Reproductive Endocrinology Noon Conferences every 2 to 3 years
4. Psychiatry Noon Conferences periodically
5. Family Practice Noon Conference periodically
6. Pediatric Endocrine Fellow lectures twice a year or more

7. Pediatrics grand rounds: Vitamin D, Type 2 diabetes, Pubertal Development, Gender Diverse Youth
8. Duke Urology Grand Rounds 2016
9. Duke Ob/Gyn Grand Rounds 2017
10. Webinar for Arkansas Children's Hospital on transgender care 2018
11. Reproductive Challenges for Transgender people-Reproductive Endocrinology-2020
12. Metabolic Bone Disease in Neonates-NICU fellows 2019
13. Duke Psychiatry Grand Rounds 2017
14. Duke Pathology Grand Rounds fall 2020
15. Duke Family Medicine Community Rotation Educator 2019 to present
16. NC NAPNAP Symposium Keynote Speaker October 10, 2020
17. Duke Internal Medicine LEADS program speaker; Transgender Care 8/3/2021
18. Equity and Social Justice Webinar: Clinical Advocacy and Care of Transgender and Gender Diverse Youth October 27, 2021Harvard Equity and Social Justice Webinar

Development of Courses Educational programs

1. Pituitary Day October 2019-full day multispecialty seminar for caregivers of patients with hypopituitarism-Organized and developed the curriculum
2. Development of Gender Diversity Education for Health System education
3. Steering Committee for Cultural Determinants and Health Disparities Course
4. Helping to Adapt Resident Coaching Program to Pediatric Fellowships
5. Developed half day course for Duke Student Health on Care of the Gender Diverse Student with multiple disciplines included
6. Course Director: American Diabetes Association Camp Carolina Trails rotation for fellows and residents: 2009, 2011 – 2019
7. Medical Education for Camp Morris 2019, 2021

Development of Assessment Tools and Methods

1. Currently under development with Population Health Sciences-method to assess gender dysphoria; received Brief High Intensity Production (BHIP) grant for this collaboration; NIH grant Submitted March 2020; I am writing the portion of grant giving background on the population and the need for better measures.
2. Collaborating with the Duke Chaplain group to develop a spiritual assessment tool for gender diverse children and their families. Completed 2019

Educational leadership roles

1. Fellowship Program Director Pediatric Endocrinology 2008-2019
2. Course Director: American Diabetes Association Camp Carolina Trails rotation for fellows and residents: 2009, 2011 to 2019

Educational Research

1. Working with coaching program for residents modified and applied in pediatric fellows
2. Worked with the Council on Pediatric Subspecialties EPA study

Invited Lectures and Presentations

1. NC Peds Conference: Pubertal Development 2016
2. Trent Center for Ethics Lecture May 2017: Transgender Medicine: a Wealth of Ethical Issues
3. Visiting Professorship: ECU Brody School of Medicine Invited Professor October 2017
4. College of Diplomates-pediatric dentistry society-Webinar on transgender care 4/1/2020
5. NAPNAP keynote speaker Annual Meeting October 2020
6. Wake County Duke CME program: Type 2 diabetes treatments in pediatrics 2019
7. Lecture on Cancer in Transgender and Intersex Individuals April 14, 2021 Mount Sinai School of Medicine
8. Lecture on Transgender Medicine Univ. of Tenn. Health Science Center School of Medicine May 7,2021
9. Equity and Social Justice Webinar: Clinical Advocacy and Care of Transgender and Gender Diverse Youth October 27, 2021Harvard Equity and Social Justice Webinar

International Meetings

1. WPATH Amsterdam 2016
2. WPATH Buenos Aires 2018

National Scientific Meetings (invited)

1. Transgender SIG Developing a Patient Registry
2. Patient Advocacy for Transgender Youth Philadelphia 2018

Instructional Courses, Workshops, Symposiums (National)

1. Time to Thrive Arkansas Children's Hospital April 2018
2. National Transgender Health Summit UCSF Jan 2018: Providers as Advocates Workshop
3. Magic Foundation-Chicago, IL Annual Speaker on Precocious Puberty, Adrenal Insufficiency, and Growth Hormone at National Conference 2016, 2017, 2019, 2020, 2021
4. The Seminar-Fort Lauderdale, FL Invited Speaker on Care of Transgender Youth 2017

Regional Presentations and Posters

a. North Carolina Pediatric Society: Pubertal Development Presentation– Pinehurst, NC 2017
b. North Carolina Psychiatric Association: Caring for Transgender Children Presentation and Workshop on key concepts in care of transgender child-Asheville, NC 2017
c. ECU Campus Health Presentation Caring for Transgender Patients 2018
d. Radiology Technology Symposium Presentation on Caring for Transgender Patients 2018
e. Duke CME in Wake County-Update on Type 2 Diabetes Treatments Feb 2019
f. Hilton Head Pediatric CME Course-Update on Type 2 Diabetes, Short Stature, and Caring for Transgender Patients June 2019

g. Wake County Duke Pediatrics CME Type 2 diabetes treatments Feb 2019
h. NAPNAP Annual Meeting Keynote Speaker 2020
i. Sexual and Gender Minorities Research Symposium Duke Feb 2020; speaker and organizer

Local Presentations

1. Grand Rounds: 2016 to present-Duke Pediatrics twice, Moses Cones Pediatrics, ECU Ob/Gyn, Duke Ob/Gyn, Duke Psychiatry, Duke Urology, Duke Adult Endocrinology, Duke Pathology
2. Prior to 2016-Rex Grand rounds: Salt and Water balance, New treatments in Pediatric Diabetes, Adrenal Insufficiency, Duke peds grand rounds Bone Health, Type 2 Diabetes Mellitus
3. Duke Women's Weekend 2018 hosted by Duke Alumni Association
4. NCCAN Social Work Training 2016
5. NAPNAP lecture 2016 and 2018 and 2020
6. Profiles in Sexuality Research Presentation at Duke Center for Sexual and Gender Diversity 2017
7. Duke LGBTQ Alumni Weekend Presentation 2017
8. UNC Chapel Hill Campus Health Presentation 2018
9. Duke Student Health Presentation 2017, 2018, 2019 (workshop)

Clinical Activity

1. Duke Consultative Services of Raleigh-2.5 days per week in endocrinology and diabetes
2. Duke Child and Adolescent Gender Care Clinic 1.2 day per week at the CHC
3. Inpatient Consult Service Pediatric Endocrinology 1 week per month

<u>Administrative and Leadership Positions</u>

1. Medical Director Duke Children's and WakeMed Consultative Services of Raleigh
2. Director Duke Child and Adolescent Gender Care Clinic
3. Pediatric Endocrinology Fellowship Program Director 2008-2019

<u>Committees</u>

1. Graduate Medical Education Committee-2008-2019
2. School of Medicine Sexual and Gender Diversity Council 2015 to present
3. Pediatrics Clinical Practice Committee-2015? To present
4. Pediatric Diversity and Inclusion Committee

<u>Community</u>

1. Test proctor local schools
2. Guest lecture GSA multiple years
3. Diabetes Camp over 10 years
4. 100 Women who give a hoot
5. Collaborated to bring "Becoming Johanna" to Duke along with multiple screenings with the director and the lead actor
6. Teddy Bear Hospital volunteer both years

IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF WEST VIRGINIA
CHARLESTON DIVISION

B.P.J. by her next friend and mother, HEATHER JACKSON,

Plaintiff,

v.

WEST VIRGINIA STATE BOARD OF EDUCATION, HARRISON COUNTY BOARD OF EDUCATION, WEST VIRGINIA SECONDARY SCHOOL ACTIVITIES COMMISSION, W. CLAYTON BURCH in his official capacity as State Superintendent, DORA STUTLER in her official capacity as Harrison County Superintendent, and THE STATE OF WEST VIRGINIA,

Defendants,

and

LAINEY ARMISTEAD,

Defendant-Intervenor.

Civil Action No. 2:21-cv-00316

Hon. Joseph R. Goodwin

REBUTTAL EXPERT REPORT AND DECLARATION OF ARON JANSSEN, M.D.

I, Aron Janssen, M.D., hereby declare as follows:

1. I have been retained by counsel for Plaintiffs as an expert in connection with the above-captioned litigation. I submit this expert declaration based on my personal knowledge.

2. The purpose of this declaration is to respond to the expert reports of Dr. Stephen Levine, MD and Dr. Stephen Cantor, Ph.D., submitted by Defendants in this case, which misrepresent current standards of care for treating gender dysphoria in children and adolescents, the practices commonly known as gender-affirming care, and the scientific data supporting those practices.

3. I have knowledge of the matters stated in this declaration and have collected and cite to relevant literature concerning the issues that arise in this litigation in the body of this declaration.

4. In preparing this declaration, I reviewed: the Complaint in this action, the expert reports of Dr. Joshua D. Safer, M.D., and Dr. Deanna Adkins, M.D., submitted by Plaintiff, and the expert reports of Dr. Levine and Dr. Cantor submitted by Defendants. I also relied on my scientific education and training, my research experience, my knowledge of the scientific literature in the pertinent fields, and my clinical experience treating children, adolescents, and adults with gender dysphoria. A true and accurate copy of my curriculum vitae is attached hereto as Exhibit A. It documents my education, training, research, and years of experience in this field and includes a list of my publications from the last 10 years, which I also rely upon to support my opinions.

5. The materials I have relied upon in preparing this declaration are the same types of materials that experts in my field regularly rely upon when forming opinions on these subjects. I may wish to supplement these opinions or the bases for them as a result of new scientific research or publications or in response to statements and issues that may arise in my area of expertise.

BACKGROUND QUALIFICATIONS

6. I am the Vice Chair of the Pritzker Department of Psychiatry and Behavioral Health at the Ann and Robert H. Lurie Children's Hospital of Chicago ("Children's Hospital"), where I also serve as Clinical Associate Professor of Child and Adolescent Psychiatry and Medical Director for Outpatient Psychiatric Services.

7. I previously served as Co-Director of the New York University Pediatric Consultation Liaison Service for the New York University Department of Child and Adolescent Psychiatry. I also was the Founder and Clinical Director of the New York University Gender and Sexuality Service, which I founded in 2011.

8. I am Board Certified in Child, Adolescent, and Adult Psychiatry. In my clinical practice, I have seen approximately 500 transgender patients.

9. I am an Associate Editor of the peer-reviewed publication *Transgender Health*. I am also a reviewer for *LGBT Health* and *Journal of the American Academy of Child and Adolescent Psychiatry*, both of which are peer-reviewed journals.

10. I am the author or co-author of 16 articles on care for transgender patients and am the co-author of *Affirmative Mental Health Care for Transgender and Gender Diverse Youth: A Clinical Casebook*, Springer Publishing, 2018. I have also authored or co-authored numerous book chapters on treatment for transgender adults and youth.

11. I have been a member of the World Professional Association for Transgender Health ("WPATH") since 2011. I have been actively involved in WPATH's revision of its Standards of Care for the Health of Transsexual, Transgender, and Gender-Nonconforming People ("Standards of Care"), serving as a member of revision committees for both the child and adult mental health chapters of the forthcoming eighth edition of WPATH's Standards of Care.

12. I am involved in a number of international, national, and regional committees that contribute to the scholarship and provision of care to transgender people. I am the Chair of the American Academy of Child and Adolescent Psychiatry's Sexual Orientation and Gender Identity Committee. I serve as a member of the Transgender Health Committee for the Association of Gay and Lesbian Psychiatrists. I also am the Founder and Director of the Gender Variant Youth and Family Network.

13. I have not testified as an expert at trial or by deposition in the last four years.

14. I am being compensated for my work on this matter at a rate of $400 per hour for preparation of this report and for time spent preparing for and giving local deposition or trial testimony. In addition, I would be compensated $2,500 per day for deposition or trial testimony

requiring travel and $300 per hour for time spent travelling, plus reasonable expenses. My compensation does not depend on the outcome of this litigation, the opinions I express, or the testimony I may provide.

SUMMARY OF OPINIONS

15. My understanding is that this case is a legal challenge to a West Virginia law ("H.B. 3293") that prohibits girls and women who are transgender from participating on girls' and women's sports teams in "[i]nterscholastic, intercollegiate, intramural, or club athletic teams or sports that are sponsored by any public secondary school or a state institution of higher education." W. Va. Code § 18-2-25d(c)(1). In their expert reports, Dr. Levine and Dr. Cantor do not offer any expert opinions directly relating to H.B. 3293 or the participation of transgender athletes. Instead, Dr. Levine and Dr. Cantor launch a broadside attack against the prevailing model of gender-affirming care for transgender youth that has been endorsed by the American Academy of Child and Adolescent Psychiatry, the American Academy of Pediatrics, the American Psychological Association, the American Psychiatric Association, and the American Medical Association, among many other mainstream medical organizations.

16. As an initial matter, it is important to note that Dr. Levine and Dr. Cantor's litany of criticisms are largely irrelevant to the population of people affected by H.B. 3293. Most of Dr. Levine and Dr. Cantor's arguments relate to (a) prepubertal children who "desist" from expressing a transgender identity once they reach puberty and (b) transgender boys who first seek treatment for gender dysphoria during adolescence. But H.B. 3293 does not affect elementary school students or transgender boys. It affects transgender girls and women in middle school, high school, and college.

17. As I explain in this report, Dr. Levine and Dr. Cantor's criticisms are also utterly unfounded. First, Dr. Levine and Dr. Cantor lack experience with gender dysphoria in children and adolescents—the groups whom their reports discuss.

18. Second, with respect to prepubertal children, Dr. Levine and Dr. Cantor present a caricatured description of prevailing standards of care that reflects a profound misunderstanding of the subject. Gender-affirming care for prepubertal children is not synonymous with "transition on demand" (Cantor Rep. ¶ 45) or a rubber-stamp recommendation that every prepubertal child expressing feelings of gender dysphoria be encouraged to socially transition. Treatment is individualized based on the needs of the child and the family and other psychosocial considerations and is decided upon only after a discussion of possible benefits and risks. For prepubertal transgender children with intense, persistent gender dysphoria, there is substantial evidence that, in appropriate cases, socially transitioning can have significant mental health benefits.

19. Third, Dr. Levine and Dr. Cantor's criticisms of gender-affirming care for adolescents—like their criticisms of gender-affirming care for prepubertal children—also reflect a distorted interpretation of the relevant scientific literature and a caricatured understanding of what gender-affirming care is. Studies have repeatedly documented that puberty-blocking medication and gender-affirming hormone therapy are associated with mental health benefits in both the short and long term. Contrary to the portrayal in Dr. Levine and Dr. Cantor's reports, gender-affirming treatment also requires a careful and thorough assessment of a patient's mental health, including co-occurring conditions, history of trauma, and substance use, among many other factors.

20. Finally, while purporting to offer expert opinions on mental health care for transgender youth, Dr. Levine and Dr. Cantor do not appear to offer any expert opinions on the mental health impact of H.B. 3293 itself. Excluding transgender adolescent girls and women from

female sports teams will not cure their gender dysphoria or improve their mental health. To the contrary, stigma and discrimination have been shown to have a profoundly harmful impact on the mental health of transgender people and other minority groups.

DISCUSSION

Dr. Levine and Dr. Cantor Lack Experience with Gender Dysphoria in Children and Adolescents

21. According to his CV, Dr. Levine is not board certified in child and adolescent psychiatry, which requires specialized training in child development that is essential for working with transgender young people and their families. His declaration and CV also indicate that he does not have significant clinical experience working with adolescents experiencing gender dysphoria, the patient population at the heart of this case.

22. Moreover, Dr. Levine repeatedly acknowledges in his report that he has no first-hand knowledge of how gender-affirming mental health care is actually provided to children and adolescents. His descriptions are based on second-hand conversations and often sensationalized media reports. (*See, e.g.*, Levine Rep. ¶¶ 49, 118 (offering opinions based on anecdotal reports from the internet).)

23. Dr. Cantor appears to have no experience in child or adolescent psychology and no relevant experience with respect to gender dysphoria in childhood and adolescence. His academic career has focused on pedophilia and sexual paraphilias in adults.

Gender-Affirming Care for Prepubertal Children

24. Dr. Levine and Dr. Cantor devote substantial portions of their expert reports to criticizing the positions of mainstream medical organizations with respect to gender-affirming care for prepubertal transgender children. (*See, e.g.*, Levine Rep. ¶¶ 42-43, 114-17, 130-34; Cantor Rep. ¶¶ 36-45, 82-87.) According to Dr. Levine and Dr. Cantor, studies have indicated that gender dysphoria in prepubertal children may desist by the time the children reach puberty, and thus

medical professionals should adopt a "watchful waiting" approach and avoid affirming a prepubertal child's gender identity.

25. Before addressing Dr. Levine and Dr. Cantor's arguments about prepubertal children, it is important to emphasize that those arguments are irrelevant to what I understand to be the issues in this case. H.B. 3293 does not apply to elementary schools, and the plaintiff in this case is an 11-year-old middle school student. The relevant population affected by H.B. 3293 is composed of transgender adolescents and young adults, not prepubertal children.

26. With respect to prepubertal children, Dr. Levine and Dr. Cantor present a caricatured description of prevailing standards of care that reflects a profound misunderstanding of the subject. Mental health providers cannot change a prepubertal child's gender identity or prevent them from being transgender, just as mental health providers cannot change a cisgender child's gender identity. Prepubertal children who "desist" are children with non-conforming gender expression who realize with the onset of puberty that their gender identity is consistent with their sex assigned at birth. Their understanding of their gender identity changes with the onset of puberty, but their gender identity does not. We cannot definitively determine which prepubertal children will go on to identify as transgender when they reach adolescence, but we know that children with gender dysphoria who persist into puberty are more likely to have expressed a consistent, persistent, and insistent understanding of their gender identity from a young age.[1]

27. Gender-affirming care for prepubertal children is not synonymous with "transition on demand" (Cantor Rep. ¶ 45) or a rubber-stamp recommendation that every prepubertal child expressing feelings of gender dysphoria be encouraged to socially transition. Treatment is

[1] Steensma, T.D., *et al*. (2013). *Factors Associated with Desistence and Persistence of Childhood Gender Dysphoria: A Quantitative Follow-Up Study*. J. AM. ACAD. CHILD ADOLESC. PSYCHIATRY. 52(6):582-90 ("Steensma 2013").

individualized based on the needs of the child and the family and other psychosocial considerations, and is decided upon only after a discussion of possible benefits and risks.[2] As part of those discussions, the child and their family are advised that prepubertal children do not always go on to identify as transgender when they reach adolescence, and that children are encouraged to continue developing an understanding of their gender identity without expectation of a specific outcome even after social transition takes place.[3]

28. The focus of gender-affirming care is supporting overall health and wellbeing, regardless of whether the young person continues to identify as transgender. In this manner, the primary goal of gender-affirming care is to help a child understand their own gender identity and build resilience and mental wellness in a child and family, without privileging any one outcome over another.

29. Important considerations in deciding whether social transition is in a child's best interest include: whether there is a consistent, stable articulation of a gender different from the child's sex assigned at birth, which should be distinguished from merely dressing or acting in a gender non-conforming manner; whether the child is expressing a strong desire or need to transition; the degree of distress the child is experiencing as a result of the gender dysphoria; and whether the child will be emotionally and physically safe during and following transition.[4]

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[2] *See* Hidalgo, M.A., *et al*. (2013). *The Gender Affirmative Model: What We Know and What We Aim to Learn*. HUMAN DEV. 56(5):285-90.

[3] *See* American Psychological Association. (2015). *Guidelines for Psychological Practice with Transgender and Gender Nonconforming People*. AM. PSYCHOLOGIST. 70(9):832-64 ("APA 2015"); Edwards-Leeper, L., & Spack, N.P. (2012). *Psychological evaluation and medical treatment of transgender youth in an interdisciplinary "Gender Management Service" (GeMS) in a major pediatric center*. J. HOMOSEXUALITY. 59(3):321-36 ("Edwards-Leeper 2012").

[4] APA 2015.

30. A treatment plan is informed by a psychosocial assessment, which may vary greatly depending on the patient's presentation and the complexity of the issues the patient is navigating. Further, in conducting that assessment, the mental health provider is drawing from their professional training and experience in working with transgender young people, exercising professional judgment, and tailoring the assessment to each individual patient.

31. There is also no requirement that prepubertal children who socially transition receive mental health therapy. Many prepubertal children who express a gender identity different from their sex assigned at birth do not experience any co-occurring conditions or other psychological distress requiring treatment.[5] Mental health therapy may be useful for some prepubertal children but is not necessary or appropriate for everyone. Forcing children to undergo therapy when it is not medically indicated is both harmful and unethical.

32. What makes gender-affirming care "gender affirming" is that it does not presume that being transgender is incompatible with a young person's short- and long-term health and wellbeing. Simply being transgender or gender nonconforming is not a medical condition or pathology to be treated. As the DSM-5 recognizes, diagnosis and treatment are "focus[ed] on dysphoria as the clinical problem, not identity per se." American Psychiatric Association, *Diagnostic and Statistical Manual of Mental Disorders (DSM-5)*, 451 (2013). The DSM-5 unequivocally repudiated the outdated view that being transgender is a pathology by revising the diagnostic criteria (and name) of gender dysphoria to recognize the clinical distress as the focus of the treatment, not the patient's transgender status.

[5] *See* Levine Rep. ¶ 30 (acknowledging that "[y]oung children who are living a transgender identity commonly suffer materially fewer symptoms of concurrent mental distress than do older patients."); de Vries, A.L.C, *et al*. (2011). *Psychiatric comorbidity in gender dysphoric adolescents*. J. CHILD PSYCHOLOGY & PSYCHIATRY. 52(11):1195-202 (noting that 67.6% had no concurrent psychiatric disorder).

33. In criticizing what they imagine to be gender-affirming care, Dr. Levine and Dr. Cantor do not merely advocate for "watchful waiting" to see whether dysphoria persists into adolescence before any treatment is provided. Instead, they offer wild speculation that mental health professionals can and should intervene and provide therapy to encourage the patient to identify with their sex assigned at birth, which they believe will reduce the likelihood that gender dysphoria will persist. Both Dr. Levine and Dr. Cantor candidly admit that there is no credible scientific research indicating that such practices are either possible or ethical. (*See* Levine Rep. ¶ 49 ("To my knowledge, there is no evidence beyond anecdotal reports that psychotherapy can enable a return to male identification for genetically male boys, adolescents, and men, or return to female identification for genetically female girls, adolescents, and women."); Cantor Rep. ¶ 42 (speculating that "therapeutic intervention [could] facilitate or speed desistance" while admitting "there has not yet been any such study").)

34. Although Dr. Levine refers to his preferred modality as the "psychotherapy model" (Levine Rep. ¶¶ 46-48), this approach is more appropriately characterized as the "gender identity conversion model" because its goal is to bring the patient's gender identity into alignment with their assigned sex and foreclose gender transition as a treatment for gender dysphoria. A recent study found that people who reported experiencing those conversion efforts were more likely to have reported attempting suicide, especially those who reported receiving such therapy in childhood.[6] That conclusion is further supported by the extensive evidence that rejection of a young person's gender identity by family and peers is the strongest predictor for adverse mental

[6] Turban, J.L., *et al*. (2020). *Association Between Recalled Exposure to Gender Identity Conversion Efforts and Psychological Distress and Suicide Attempts Among Transgender Adults*. JAMA PSYCHIATRY. 77(1):68-76.

health outcomes.[7] Attempting to change a person's gender identity is not an appropriate therapeutic modality, and such practices have been widely recognized as discredited, harmful, and ineffective.[8]

35. In contrast, for prepubertal transgender children with intense, persistent gender dysphoria, there is substantial evidence that, in appropriate cases, socially transitioning can have significant mental health benefits. While not true for every transgender child, transgender children as a group have higher rates of depression, anxiety, and suicidal thoughts and behaviors. Research indicates that social transition significantly improves the mental health of transgender young people, bringing their mental health profiles into close alignment with their non-transgender peers, finding only slightly higher levels of anxiety and no elevated levels of depression.[9]

36. Dr. Levine and Dr. Cantor criticize research demonstrating the benefits of social transition and argue that even after socially transitioning, transgender youth as a group can

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[7] Ryan, C., *et al*. (2010). *Family Acceptance in Adolescence and the Health of LGBT Young Adults*. J. CHILD ADOLESC. PSYCHIATRIC NURSING. 23(4):205-13; Klein, A., & Golub, S.A. (2016). *Family Rejection as a Predictor of Suicide Attempts and Substance Misuse Among Transgender and Gender Nonconforming Adults*. LGBT HEALTH. 3(3):193-99.

[8] *See* American Academy of Child & Adolescent Psychiatry Policy Statement: Conversion Therapy (2018); American Psychiatric Association Position Statement on Conversion Therapy and LGBTQ Patients (2018); American Psychological Association Resolution on Gender Identity Change Efforts (2021).

[9] *See* Gibson, D.J., *et al*. (2021). *Evaluation of Anxiety and Depression in a Community Sample of Transgender Youth*. JAMA NETWORK OPEN. 4(4):e214739; Durwood, L., *et al*. (2017). *Mental Health and Self-Worth in Socially Transitioned Transgender Youth*. J. AM. ACAD. CHILD ADOLESC. PSYCHIATRY. 56(2):116-23; Olson, K.R., *et al*. (2016). *Mental Health of Transgender Children Who Are Supported in Their Identities*. PEDIATRICS. 137(3):e20153223 ("Olson 2016").

Dr. Cantor points to a critique of Olson 2016 which attempted—unsuccessfully—to show statistical errors in the paper. (Cantor Rep. ¶¶ 15-16, 100 (citing Schumm, W. R., & Crawford, D.W. (2020). *Is Research on Transgender Children What It Seems? Comments on Recent Research on Transgender Children with High Levels of Parental Support*. THE LINACRE QUARTERLY. 87(1):9-–24).) The small statistical errors in Olson 2016 had already been corrected in 2018 and did not alter any of the study's findings. *See* Olson, K.R., *et al.* (2018). *Mental Health of Transgender Children Who Are Supported in Their Identities* (Errata). PEDIATRICS. 142(2):e20181436.

experience higher rates of anxiety and depression than cisgender children of the same age. To be sure, stigma and discrimination have been shown to have a profoundly harmful impact on mental health of transgender people and other minority groups.[10] But preventing a child from socially transitioning does not prevent the child from being transgender, and social transition is a treatment for gender dysphoria, not a panacea for all co-occurring mental health concerns. Dr. Levine and Dr. Cantor offer no support whatsoever for their apparent assumption that mental health outcomes would be improved by preventing social transition from occurring.

37. There is also no evidence supporting Dr. Levine's speculation that allowing prepubertal children to socially transition puts children on a "conveyor belt" path to becoming transgender adolescents and adults. (*See* Levine Rep. ¶¶ 131-34.) Rather, the evidence shows that the same prepubertal children who are likely to have a stable transgender identity into adolescence are the children who are most likely to articulate a strong and consistent need to socially transition.[11] For example, a recent study found that a group of transgender children who transitioned before puberty and a group of transgender children who waited to transition until after puberty both showed the same intensity of cross-gender identification. In other words, socially transitioning before puberty did not increase children's cross-gender identification, and deferring transition did not decrease cross-gender identification.[12] Intense cross-gender identification and a strong, persistent desire to transition is simply an indicator that a child is more likely to be transgender and not merely gender nonconforming.

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[10] White Hughto, J.M., *et al*. (2015). *Transgender stigma and health: A critical review of stigma determinants, mechanisms, and interventions*. SOC. SCI. MED. 147:222-31 ("White Hughto 2015").

[11] Steensma 2013.

[12] Rae, J.R., *et al*. (2019). *Predicting Early-Childhood Gender Transitions*. PSYCHOLOGICAL SCI. 30(5):669-81.

Gender-Affirming Care for Adolescents

38. Dr. Levine and Dr. Cantor also devote much of their reports to criticizing the provision of gender-affirming care for adolescents, arguing that the benefits of puberty-blocking medication are overstated and that adolescents should have more rigorous mental health screening. As with their criticisms of gender-affirming care for prepubertal children, Dr. Levine and Dr. Cantor do not explain how any of their criticisms are relevant to the issue of whether girls and women who are transgender should be able to participate on female sports teams in secondary school and college.

39. Dr. Levine and Dr. Cantor's criticisms of gender-affirming care for adolescents—like their criticisms of gender-affirming care for prepubertal children—also reflect a distorted interpretation of the relevant scientific literature and a caricatured understanding of what gender-affirming care is. Despite Dr. Levine's suggestion to the contrary, there is no "watchful waiting" approach for transgender adolescents. Even practitioners who oppose social transition in childhood provide gender-affirming care for transgender adolescents, including puberty-blocking medication and gender-affirming hormone treatments for gender dysphoria.[13] As with their criticism of care for prepubertal children, Dr. Levine and Dr. Cantor criticize the methodology of studies supporting gender-affirming care while proposing a "therapy only" treatment without any empirical or scientific support whatsoever.

40. Studies have repeatedly documented that puberty blocking medication and gender-affirming hormone therapy are associated with mental health benefits in both the short and long

[13] Jack Turban, Annelou DeVries & Kenneth Zucker, "Gender Incongruence & Gender Dysphoria," in *Lewis's Child and Adolescent Psychiatry: A Comprehensive Textbook* (A Martin, *et al*., eds., 5th ed., 2018).

term.[14] In addition to forestalling increased distress and dysphoria resulting from the physical changes accompanying puberty, puberty-delaying medication followed by gender-affirming hormones brings a transgender person's body into greater alignment with their identity over the long term and reduces the number of surgeries a transgender person may need as an adult. The benefits of puberty-blocking medication thus increase over the long term as the person progresses into adulthood.[15]

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[14] *See* Tordoff, D.M., *et al*. (2022). *Mental Health Outcomes in Transgender and Nonbinary Youths Receiving Gender-Affirming Care*. JAMA NETWORK OPEN. 5(2):e220978 at 1 (finding that receipt of gender-affirming care, including puberty blockers and gender-affirming hormones, was associated with 60% lower odds of moderate or severe depression and 73% lower odds of suicidality over a 12-month follow-up); Green, A.E., *et al.* (2021). *Association of Gender-Affirming Hormone Therapy with Depression, Thoughts of Suicide, and Attempted Suicide Among Transgender and Nonbinary Youth*. J. ADOLESC. HEALTH [ePublication ahead of print] at 1 (finding that access to gender-affirming hormones during adolescence was associated with lower odds of recent depression and having attempted suicide in the past year); Turban, J.L., *et al*. (2020) *Pubertal Suppression for Transgender Youth and Risk of Suicidal Ideation*. PEDIATRICS. 145(2):e20191725 at 1 (finding that access to puberty blockers during adolescence is associated with a decreased lifetime incidence of suicidal ideation among adults); Achille, C., *et al*. (2020). *Longitudinal impact of gender-affirming endocrine intervention on the mental health and well-being of transgender youths: Preliminary results*. INT'L J. PEDIATRIC ENDOCRINOLOGY. 2020:8 at 1 (finding that endocrine intervention was associated with decreased depression and suicidal ideation and improved quality of life for transgender youth); Kuper, L.E., *et al*. (2020). *Body Dissatisfaction and Mental Health Outcomes of Youth on Gender-Affirming Hormone Therapy*. PEDIATRICS. 145(4):e20193006 at 1 (showing hormone therapy in youth is associated with reducing body dissatisfaction and modest improvements in mental health); van der Miesen, A.I.R., *et al*. (2020). *Psychological Functioning in Transgender Adolescents Before and After Gender-Affirmative Care Compared with Cisgender General Population Peers*. J. ADOLESC. HEALTH. 66(6):699-704 at 699 (showing fewer emotional and behavioral problems after puberty suppression, and similar or fewer problems compared to same-age cisgender peers) ("van der Miesen 2020"); Costa, R., *et al*. (2015). *Psychological Support, Puberty Suppression, and Psychosocial Functioning in Adolescents with Gender Dysphoria*. J. SEXUAL MEDICINE. 12(11):2206-14 at 2206 (finding increased psychological function after six months of puberty suppression); de Vries, A.L.C., *et al*. (2014). *Young Adult Psychological Outcome After Puberty Suppression and Gender Reassignment*. PEDIATRICS. 134(4):696-704 (following a cohort of transgender young people in the Netherlands from puberty suppression through surgical treatment and finding that the cohort had global functioning that was equivalent to the Dutch population) ("de Vries 2014").

[15] de Vries 2014.

41. Dr. Cantor fails to discuss many of the studies documenting the benefits of puberty-blocking medication. For the studies he does discuss, Dr. Cantor's primary criticism is that many of the prospective cohort studies offered psychosocial support in addition to puberty blockers and hormones, which prevented the study from isolating whether the benefit is associated with the puberty blocker, the gender-affirming hormones, or some combination. (Cantor Rep. ¶¶ 64, 66.) But, as Dr. Cantor himself notes, elsewhere "in medical research, where we cannot manipulate people in ways that would clear up difficult questions, all studies will have a fault. In science, we do not, however, reject every study with any identifiable short-coming—rather, we gather a diversity of observations, made with their diversity of compromises to safety and ethics (and time and cost, etc.)." (Cantor Rep. ¶ 87.) When viewed as a comprehensive body of research, the weight of the evidence and the experience of clinicians has demonstrated that puberty-blocking medication and hormones have been associated with a variety of mental health benefits across different contexts.

42. There is also no credible basis for Dr. Levine's assertion that an adolescent's decision to begin puberty-blocking medication "act[s] as a psychosocial 'switch,' decisively shifting many children to a persistent transgender identity." (Levine Rep. ¶ 137.) Studies showing that a high percentage of transgender adolescents who receive puberty blockers ultimately decide to move forward with gender-affirming hormone therapy more likely reflect the fact that participants were rigorously screened and had demonstrated sustained, persistent gender dysphoria before receiving medical treatment.

43. Instead of addressing the proper treatment for transgender adolescents in need of care, Dr. Levine and Dr. Cantor devote most of their attention to the possibility that a person could be misdiagnosed with gender dysphoria and then later regret their medical transition. For example, Dr. Levine and Dr. Cantor devote a great deal of space to discussing a theory that an increasing

number of people who are assigned female at birth are suddenly identifying as males in mid-to-late adolescence as a result of peer pressure and social contagion. (Levine Rep. ¶¶ 38, 118-20; Cantor Rep. ¶¶ 73-74.) The theory that some adolescents experience "rapid-onset gender dysphoria" (Levine Rep. ¶ 118; Cantor Rep. ¶¶ 73-74) as a result of social influences is based almost exclusively on one highly controversial study.[16] Although purporting to provide a basis for Dr. Levine's speculations, the study was based on an anonymous survey, allegedly of parents, about the etiology of their child's gender dysphoria. Participants were recruited from websites promoting this social contagion theory, and the children were not surveyed or assessed by a clinician. Those serious methodological flaws render the study meaningless. The only conclusion that can be drawn from that study is that a self-selected sample of anonymous people recruited through websites that predisposed participants to believe transgender identity can be influenced by social factors do, in fact, believe those social factors influence children to identify as transgender.[17]

44. Some transgender people who do not come forward until adolescence may have experienced symptoms of gender dysphoria for long periods of time but been uncomfortable disclosing those feelings to parents. Other transgender people do not experience distress until they experience the physical changes accompanying puberty. In either case, gender-affirming care requires a comprehensive assessment and persistent, sustained gender dysphoria before medical treatment is prescribed.

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[16] *See* Littman, L. (2018). *Parent reports of adolescents and young adults perceived to show signs of a rapid onset of gender dysphoria*. PLoS ONE. 13(8):e0202330.

[17] Aside from these serious methodological flaws, Littman's hypothesis of "rapid onset gender dysphoria" focuses specifically on gender dysphoria in boys who are transgender and were assigned a female sex at birth. By contrast, the restrictions in H.B. 3293 are limited to girls and women who are transgender and were assigned a male sex at birth. As with their arguments about prepubertal children, Dr. Levine and Dr. Cantor's arguments about boys who are transgender are not relevant to the population actually affected by H.B. 3293.

45. Contrary to the portrayal in Dr. Levine and Dr. Cantor's reports, gender-affirming treatment also requires a careful and thorough assessment of a patient's mental health, including co-occurring conditions, history of trauma, and substance use, among many other factors.[18] As a result, I have had patients who presented with some symptoms of gender dysphoria, but who ultimately did not meet the diagnostic criteria for a variety of reasons, and therefore I recommended treatments other than transition to alleviate their psychological distress.

46. Dr. Levine and Dr. Cantor also devote substantial space to discussing the possibility that a person could be misdiagnosed with gender dysphoria instead of another mental health condition. (*See, e.g.* Levine Rep. ¶¶ 118-26; Cantor Rep. ¶¶ 73-74, 76-80.) Studies on transgender young people have long reported data on co-occurring conditions. Indeed, Dr. Cantor specifically cites to one of my own articles on the topic. (Cantor Rep. ¶ 76 (citing Janssen, A., *et al*. (2019). *The Complexities of Treatment Planning for Transgender Youth with Co-Occurring Severe Mental Illness: A Literature Review and Case Study*. ARCHIVES OF SEXUAL BEHAVIOR. 48(7):2003-09).)

47. The existence—and prevalence—of co-occurring conditions among transgender young people is unsurprising. Transgender young people must cope with many stressors, from the fear of rejection by family and peers to pervasive societal discrimination. Not to mention, their underlying gender dysphoria can cause significant psychological distress which, if left untreated, can result in or exacerbate the co-occurring conditions identified in studies on transgender young people.[19] And, given that transgender young people typically delay disclosing their transgender status or initially experience family rejection following disclosure, it is not uncommon for

[18] Olson-Kennedy, J., *et al*. (2019). *Creating the Trans Youth Research Network: A Collaborative Research Endeavor.* TRANSGENDER HEALTH. 4(1):304-12; Edwards-Leeper 2012.

[19] van der Miesen 2020; Turban, J.L., *et al*. (2021). *Timing of Social Transition for Transgender and Gender Diverse Youth, K-12 Harassment, and Adult Mental Health Outcomes*. J. ADOLESC. HEALTH. 69(6):991-98.

transgender young people to engage with psychological or psychiatric care for other reasons prior to being diagnosed with gender dysphoria.

48. Requiring that a transgender patient resolve all co-occurring conditions, many of which are chronic with no reasonable expectation that they be "resolved," prior to receiving gender-affirming care—as suggested by Dr. Cantor—is not possible, nor is it ethical. (Cantor Rep. ¶¶ 14, 35, 69, 92, 110.) No relevant organizations cite the need for co-occurring mental health conditions to be resolved before a patient may receive gender-affirming care. Rather, such conditions should be reasonably well-controlled and not impair the ability of the patient to make an informed decision or interfere with the accuracy of the diagnosis of gender dysphoria. Indeed, some co-occurring conditions (for example, Attention Deficit Hyperactivity Disorder and Autism Spectrum Disorder, to name a few) could be chronic disorders where complete resolution is impossible and the goal of treatment is mitigating harm and improving functioning,

49. It is important to note that distress associated with untreated gender dysphoria can also amplify co-occurring conditions that developed independently of the gender dysphoria. Thus, treating the underlying gender dysphoria is essential to alleviating the psychological distress associated with co-occurring conditions.

Discriminating Against Transgender Students Does Not Improve Their Mental Health

50. The overarching theme of Dr. Levine and Dr. Cantor's reports is that transgender people as a group have greater rates of a variety of negative social outcomes and co-occurring conditions over the course of their lives and that, to avoid those negative outcomes and conditions, mental health providers should withhold gender-affirming care to discourage transgender youth from growing into transgender adults.[20]

[20] Dr. Levine bizarrely speculates that once a transgender person's siblings "marry and have children," they will not "wish the transgender individual to be in contact with those children," and

51. Discriminating against transgender people, or withholding gender-affirming care, will not prevent those people from being transgender. And excluding transgender adolescent girls and women from female sports teams will not cure their gender dysphoria or improve their mental health. To the contrary, as noted previously, stigma and discrimination have been shown to have a profoundly harmful impact on the mental health of transgender people and other minority groups.[21]

52. No reasonable mental health professional with relevant experience treating children and adolescents could conclude that H.B. 3293 is anything but harmful to the mental health of transgender youth. Exclusion and isolation are harmful for all adolescents, but particularly so for transgender youth who face the additional burden of societal stigma. Preventing transgender youth from participating in the same activities as their peers—or forcing transgender youth to be treated inconsistent with their gender identity—undermines their ability to socially transition and prevents transgender youth from accessing important educational and social benefits of the school environment.[22]

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that transgender people will be less likely to find "individuals willing to develop a romantic and intimate relationship with them." (Levine Rep. ¶¶ 202-03.) Dr. Levine offers no statistical support for these assertions and, in my experience, clinical practice has shown the opposite to be true.

[21] White Hughto 2015.

[22] American Psychological Association Resolution on Supporting Sexual/Gender Diverse Children and Adolescents in Schools (2020) at 5 (supporting inclusion of transgender youth in school activities and sports consistent with their gender identity); Clark, C.M., & Kosciw, J.G. (2022). *Engaged or excluded: LGBTQ youth's participation in school sports and their relationship to psychological well-being*. PSYCHOLOGY IN THE SCHOOLS. 59:95-114 (finding transgender youth who participated in sports had increased well-being and greater school belonging).

CONCLUSION

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

Executed on 3/10/2022

Aron Janssen, MD

Curriculum Vitae

Aron Janssen, M.D.
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Personal Data

Born	Papillion, Nebraska
Citizenship	USA

Academic Appointments

2011-2017	Clinical Assistant Professor of Child and Adolescent Psychiatry
2011-2019	Founder & Clinical Director, NYU Gender and Sexuality Service Director, LGBT Mental Health Elective, NYULMC
2015-2019	Co-Director, NYU Pediatric Consultation Liaison Service New York University Department of Child and Adolescent Psychiatry
2017-present	Clinical Associate Professor of Child and Adolescent Psychiatry
2019-present	Vice Chair, Pritzker Department of Psychiatry and Behavioral Health Ann and Robert H. Lurie Children's Hospital of Chicago
2020-present	Medical Director, Outpatient Psychiatric Services Ann and Robert H. Lurie Children's Hospital of Chicago

Education

Year	Degree	Field	Institution
6/97	Diploma		Liberty High School
5/01	B.A.	Biochemistry	University of Colorado
5/06	M.D.	Medicine	University of Colorado

Postdoctoral Training

2006-2009	Psychiatry Residency	Ze'ev Levin, M.D.	NYU Department of Psychiatry
2009-2011	Child and Adolescent Psychiatry Fellowship – Fellow and Clinical Instructor		
		Jess Shatkin, M.D.	NYU Dept of Child/Adolescent Psychiatry

Licensure and Certification

2007-present	New York State Medical License
2011-present	Certification in Adult Psychiatry, American Board of Psychiatry and Neurology
2013-present	Certification in Child and Adolescent Psychiatry, ABPN

Academic Appointments

2009-2011	Clinical Instructor, NYU Department of Child and Adolescent Psychiatry
2011-2017	Clinical Asst Professor, NYU Dept of Child and Adolescent Psychiatry
2017-2019	Clinical Assoc Professor, NYU Dept of Child and Adolescent Psychiatry
2011-present	Clinical Director, NYU Gender and Sexuality Service
2015-2019	Co-Director, NYU Pediatric Consultation-Liaison Service
2019-present	Associate Professor of Child and Adolescent Psychiatry, Northwestern University
2019-present	Vice Chair of Clinical Affairs, Pritzker Department of Psychiatry and Behavioral Health, Lurie Children's Hospital of Chicago

Major Committee Assignments

International, National and Regional

2021-present	Sexual Orientation and Gender Identity Committee, Chair, AACAP
2019-present	WPATH Standards of Care Revision Committee, Children
2019-present	WPATH Standards of Care Revision Committee, Adult Mental Health
2015-2019	Department of Child Psychiatry Diversity Ambassador
2013-2021	Sexual Orientation and Gender Identity Committee Member, AACAP
2012-present	Founder and Director, Gender Variant Youth and Family Network
2012-present	Association of Gay and Lesbian Psychiatrists, Transgender Health Committee
2012-2019	NYULMC, Chair LGBTQ Advisory Council
2012-2019	NYULMC, Child Abuse and Protection Committee
2013-2015	NYULMC, Pediatric Palliative Care Team
2003-2004	American Association of Medical Colleges (AAMC), Medical Education Delegate
2004-2006	AAMC, Western Regional Chair

Psychiatry Residency

2006-2009	Resident Member, Education Committee
2007-2008	Resident Member, Veterans Affairs (VA) Committee

Medical School

2002-2006	Chair, Diversity Curriculum Development Committee
2002-2006	AAMC, Student Representative
2003-2004	American Medical Student Assoc. (AMSA) World AIDS Day Coordinator
2003-2004	AMSA, Primary Care Week Coordinator
2004-2006	Chair, Humanism in Medicine Committee

Memberships, Offices, and Committee Assignments in Professional Societies

2006-present	American Psychiatric Association (APA)
2009-present	American Academy of Child and Adolescent Psychiatry (AACAP)
2011-present	World Professional Association for Transgender Health (WPATH)
2011-present	Director, Gender Variant Youth and Family Network, NYC
2013-2019	Chair, NYU Langone Medical Center LGBTQ Council
2015-present	Clinical Associate Editor, *Transgender Health*

Editorial Positions

2016-present	Clinical Assistant Editor, *Transgender Health*
2014-present	Ad Hoc Reviewer, *LGBT Health.*
2016-present	Ad Hoc Reviwer, *JAACAP*
2018-present	Associate Editor, *Transgender Health*

Principal Clinical and Hospital Service Responsibilities

2011-2019	Staff Psychiatrist, Pediatric Consultation Liaison Service
2011-2019	Faculty Physician, NYU Child Study Center
2011-2019	Founder and Clinical Director, NYU Gender & Sexuality Service
2015-2019	Co-Director, Pediatric Consultation Liaison Service
2019-present	Vice Chair, Pritzker Dept of Psychiatry and Behavioral Health
2019-present	Chief Psychiatrist, Gender Development Program

2020-present Medical Director, Outpatient Psychiatry Services

Relevant Program Development

Gender and Sexuality Service

-founded by Aron Janssen in 2011, who continues to direct the service
-first mental health service dedicated to transgender youth in NYC
-served over 200 families in consultation, with 2-3 referrals to the gender clinic per week
-trained over 500 mental health practitioners in transgender mental health – 1 or 2 full day trainings in partnership with the Ackerman Institute's Gender and Family Project (GFP) and with WPATH Global Educational Initiative (GEI)
-New hires in Adolescent Medicine, Psychology, Plastic Surgery, Urology, Gynecology, Endocrinology, Social Work, Department of Population Health with focus on transgender care has led to expansion of available services for transgender youth at NYULMC in partnership with the Gender and Sexuality Service
-development of partnerships with Ackerman Institute, Callen-Lorde Health Center – both institutions have been granted access to our IRB and have agreed to develop shared research and clinical priorities with the Gender and Sexuality Service. Two active projects are already underway
-multiple IRB research projects underway, including in partnership with national and international clinics
-model has been internationally recognized

Clinical Specialties/Interests

Gender and Sexual Identity Development
Co-Occurring Mental Health Disorders in Transgender children, adolescents and adults
Pediatric Consultation/Liaison Psychiatry
Psychotherapy
-Gender Affirmative Therapy, Supportive Psychotherapy, CBT, MI

Teaching Experience

2002-2006 Course Developer and Instructor, LGBT Health (University of Colorado School of Medicine
2011-2019 Instructor, Cultural Competency in Child Psychiatry (NYU Department of Child and Adolescent Psychiatry) – 4 hours per year
2011-2019 Course Director, Instructor "Sex Matters: Identity, Behavior and Development" – 100 hours per year
2011-2019 Course Director, LGBT Mental Health Elective (NYU Department of Psychiatry) - 50 hours of direct supervision/instruction per year
2011-2019 Course Director, Transgender Mental Health (NYU Department of Child and Adolescent Psychiatry – course to begin in Spring 2018.
2015-2019 Instructor, Gender & Health Selective (NYU School of Medicine) – 4 hours per year.

Academic Assignments/Course Development

New York University Department of Child and Adolescent Mental Health Studies

-Teacher and Course Director: "Sex Matters: Identity, Behavior and Development." A full semester 4 credit course, taught to approximately 50 student per year since

2011, with several students now in graduate school studying sexual and gender identity development as a result of my mentorship.

NYU Department of Child and Adolescent Psychiatry
-Instructor: Cultural Competency in Child and Adolescent Psychiatry
-Director: LGBTQ Mental Health Elective
World Professional Association of Transgender Health
-Official Trainer: Global Education Initiative – one of two child psychiatrists charged with training providers in care of transgender youth and adults.

Peer Reviewed Publications

1. Janssen, A., Erickson-Schroth, L., "A New Generation of Gender: Learning Patience from our Gender Non-Conforming Patients," Journal of the American Academy of Child and Adolescent Psychiatry, Volume 52, Issue 10, pp. 995-997, October, 2013.
2. Janssen, A., et. al. "Theory of Mind and the Intolerance of Ambiguity: Two Case Studies of Transgender Individuals with High-Functioning Autism Spectrum
3. Janssen A, Huang H, and Duncan C., Transgender Health. February 2016, "Gender Variance Among Youth with Autism: A Retrospective Chart Review." 1(1): 63-68. doi:10.1089/trgh.2015.0007.
4. Goedel WC, Reisner SL, Janssen AC, Poteat TC, Regan SD, Kreski NT, Confident G, Duncan DT. (2017). Acceptability and Feasibility of Using a Novel Geospatial Method to Measure Neighborhood Contexts and Mobility Among Transgender Women in New York City. Transgender Health. July 2017, 2(1): 96-106.
5. Janssen A., et. al., "Gender Variance Among Youth with ADHD: A Retrospective Chart Review," in review
6. Janssen A., et. al., "Initial Clinical Guidelines for Co-Occurring Autism Spectrum Disorder and Gender Dysphoria or Incongruence in Adolescents," Journal of Child & Adolescent Psychology, 105-115, January 2018.
7. Janssen A., et. al., "A Review of Evidence Based Treatments for Transgender Youth Diagnosed with Social Anxiety Disorder," Transgender Health, 3:1, 27–33, DOI: 10.1089/ trgh.2017.0037.
8. Janssen A., et. al., "The Complexities of Treatment Planning for Transgender Youth with Co-Occurring Severe Mental Illness: A Literature Review and Case Study," Archives of Sexual Behavior, 2019. # 3563492
9. Kimberly LL, Folkers KM, Friesen P, Sultan D, Quinn GP, Bateman-House A, Parent B, Konnoth C, Janssen A, Shah LD, Bluebond-Langner R, Salas-Humara C., "Ethical Issues in Gender-Affirming Care for Youth," Pediatrics, 2018 Dec;142(6).
10. Strang JF, Janssen A, Tishelman A, Leibowitz SF, Kenworthy L, McGuire JK, Edwards-Leeper L, Mazefsky CA, Rofey D, Bascom J, Caplan R, Gomez-Lobo V, Berg D, Zaks Z, Wallace GL, Wimms H, Pine-Twaddell E, Shumer D, Register-Brown K, Sadikova E, Anthony LG., "Revisiting the Link: Evidence of the Rates of Autism in Studies of Gender Diverse Individuals," Journal of the American Academy of Child and Adolescent Psychiatry, 2018 Nov;57(11):885-887.
11. Goedel William C, Regan Seann D, Chaix Basile, Radix Asa, Reisner Sari L, Janssen Aron C, Duncan Dustin T, "Using global positioning system methods to explore mobility patterns and exposure to high HIV prevalence neighbourhoods among transgender women in New York City," Geospatial Health, 2019 Jan; 14(2): 351-356.
12. Madora, M., Janssen, A., Junewicz, A., "Seizure-like episodes, but is it really epilepsy?" Current Psychiatry. 2019 Aug; 18(8): 42-47.

13. Janssen, A., Busa, S., Wernick, J., "The Complexities of Treatment Planning for Transgender Youth with Co-Occurring Severe Mental Illness: A Literature Review and Case Study," Archives of Sexual Behavior. 2019 Oct; 48(7): 2003-2009.
14. Wernick Jeremy A, Busa Samantha, Matouk Kareen, Nicholson Joey, Janssen Aron, "A Systematic Review of the Psychological Benefits of Gender-Affirming Surgery," Urol Clin North Am. 2019 Nov; 46(4): 475-486.
15. Strang, J.F., Knauss, M., van der Miesen, A.I.R., McGuire, J., Kenworthy, L., Caplan, R., Freeman, A.J., Sadikova, E., Zacks, Z., Pervez, N., Balleur, A., Rowlands, D.W., Sibarium, E., McCool, M.A., Ehrbar, R.D., Wyss, S.E., Wimms, H., Tobing, J., Thomas, J., Austen, J., Pine, E., Willing, L., Griffin, A.D., Janssen, A., Gomez-Lobo, A., Brandt, A., Morgan, C., Meagher, H., Gohari, D., Kirby, L., Russell, L., Powers, M., & Anthony, L.G., (in press 2020). A clinical program for transgender and gender-diverse autistic/neurodiverse adolescents developed through community-based participatory design. *Journal of Clinical Child and Adolescent Psychology.* DOI 10.1080/15374416.2020.1731817
16. Coyne, C. A., Poquiz, J. L., Janssen, A., & Chen, D. Evidence-based psychological practice for transgender and non-binary youth: Defining the need, framework for treatment adaptation, and future directions. Evidence-based Practice in Child and Adolescent Mental Health.
17. Janssen, A., Voss, R.. Policies sanctioning discrimination against transgender patients flout scientific evidence and threaten health and safety. Transgender Health.
18. Dubin, S., Cook, T., Liss, A., Doty, G., Moore, K., Janssen, A. (In press 2020). Comparing Electronic Health Records Domains' Utility to Identify Transgender Patients. Transgender Health, DOI 10.1089/trgh.2020.0069

Published Abstracts

1. Thrun, M., Janssen A., et. al. "Frequency of Patronage and Choice of Sexual Partners may Impact Likelihood of HIV Transmission in Bathhouses," original research poster presented at the 2007 Conference on Retroviruses and Opportunistic Infections, February, 2007.
2. Janssen, A., "Advocating for the mental health of Lesbian, Gay, Bisexual and Transgender (LGBT) population: The Role of Psychiatric Organizations." Workshop for the American Psychiatric Association Institute of Psychiatric Services Annual Meeting, October 2012.
3. Janssen, A., "Gender Variance in Childhood and Adolescents: Training the Next Generation of Psychiatrists," 23rd Symposium of the World Professional Association for Transgender Health, Amsterdam, The Netherlands, February 2014.
4. Janssen, A., "When Gender and Psychiatric Acuity/Comorbidities Overlap: Addressing Complex Issues for Gender Dysphoric and Non-Conforming Youth," AACAP Annual Meeting, October 2014.
5. Janssen, A., "Patient Experiences as Drivers of Change: A unique model for reducing transgender health disparities as an academic medical center," Philadelphia Transgender Health Conference, June 2016.
6. Janssen, A., "How much is too much? Assessments & the Affirmative Approach to TGNC Youth," 24th Symposium of the World Professional Association for Transgender Health, Amsterdam, The Netherlands, June 2016.

7. Janssen, A., "Trauma, Complex Cases and the Role of Psychotherapy," 24th Symposium of the World Professional Association for Transgender Health, Amsterdam, The Netherlands, June 2016.
8. Janssen, A., "Gender Variance Among Youth with Autism: A Retrospective Chart Review," Research Poster, 24th Symposium of the World Professional Association for Transgender Health, Amsterdam, The Netherlands, June 2016.
9. Janssen, A., "Gender Fluidity and Gender Identity Development," Center for Disease Control – STD Prevention Conference, September 2016.
10. Janssen, A., "Transgender Identities Emerging During Adolescents' Struggles With Mental Health Problems," AACAP Annual Conference, October 2016.
11. Janssen, A., "How Much is Too Much? Assessments and the Affirmative Approach to Transgender and Gender Diverse Youth," US Professional Association for Transgender Health Inaugural Conference, Los Angeles, February 2017.
12. Janssen, A., "Trauma, Complex Cases and the Role of Psychotherapy," US Professional Association for Transgender Health Inaugural Conference, Los Angeles, February 2017.
13. Sutter ME, Bowman-Curci M, Nahata L, Tishelman AC, Janssen AC, Salas-Humara C, Quinn GP. Sexual and reproductive health among transgender and gender-expansive AYA: Implications for quality of life and cancer prevention. Oral presentation at the Oncofertility Consortium Conference, Chicago, IL. November 14, 2017.
14. Janssen, A., Sidhu, S., Gwynette, M., Turban, J., Myint, M., Petersen, D., "It's Complicated: Tackling Gender Dysphoria in Youth with Autism Spectrum Disorders from the Bible Belt to New York City," AACAP Annual Conference, October 2017.
15. May 2018: "A Primer in Working with Parents of Transgender Youth," APA Annual Meeting.
16. October 2018: "Gender Dysphoria Across Development" – Institute for AACAP Annual Conference.
17. November 2018: "Gender Variance Among Youth with Autism," World Professional Association for Transgender Health Biannual Conference.
18. March 2019: "Gender Trajectories in Child and Adolescent Development and Identity," Austin Riggs Grand Rounds.
19. Janssen, A., et. al., "Ethical Principles in Gender Affirming Care," AACAP Annual Conference, October 2019.
20. Janssen, A., "Gender Diversity and Gender Dysphoria in Youth," EPATH Conference, April 2019
21. Englander, E., Janssen A., et. al., "The Good, The Bad, and The Risky: Sexual Behaviors Online," AACAP Annual Conference, October 2020
22. Englander, E., Janssen, A., et. al., "Love in Quarantine," AACAP Annual Conference, October 2021
23. Janssen, A., Leibowitz, S., et. al., "The Evidence and Ethics for Transgender Youth Care: Updates on the International Standards of Care, 8th Edition," AACAP Annual Conference, October 2021
24. Turban, J., Janssen, A., et. al., "Transgender Youth: Understanding "Detransition," Nonlinear Gender Trajectories, and Dynamic Gender Identities," AACAP Annual Conference, October 2021

Books

1. Janssen, A., Leibowitz, S (editors), Affirmative Mental Health Care for Transgender and Gender Diverse Youth: A Clinical Casebook, Springer Publishing, 2018.

Book Chapters

1. Janssen, A., Shatkin, J., "Atypical and Adjunctive Agents," Pharmacotherapy for Child and Adolescent Psychiatric Disorders, 3rd Edition, Marcel Dekker, Inc, New York, 2012.
2. Janssen, A; Liaw, K: "Not by Convention: Working with People on the Sexual & Gender Continuum," book chapter in The Massachusetts General Hospital Textbook on Cultural Sensitivity and Diversity in Mental Health. Humana Press, New York, Editor R. Parekh, January 2014.
3. Janssen, A; Glaeser, E., Liaw, K: "Paving their own paths: What kids & teens can teach us about sexual and gender identity," book chapter in Cultural Sensitivity in Child and Adolescent Mental Health, MGH Psychiatry Academy Press, Editor R. Parekh, 2016
4. Janssen A., "Gender Identity," Textbook of Mental and Behavioral Disorders in Adolescence, February 2018.
5. Busa S., Wernick, J., & Janssen, A. (In Review) Gender Dysphoria in Childhood. Encyclopedia of Child and Adolescent Development. Wiley, 2018.
6. Janssen A., Busa S., "Gender Dysphoria in Childhood and Adolescence," Complex Disorders in Pediatric Psychiatry: A Clinician's Guide, Elsevier, Editors Driver D., Thomas, S., 2018.
7. Wernick J.A., Busa S.M., Janssen A., Liaw K.RL. "Not by Convention: Working with People on the Sexual and Gender Continuum." Book chapter in The Massachusetts General Hospital Textbook on Diversity and Cultural Sensitivity in Mental Health, editors Parekh R., Trinh NH. August, 2019.
8. Weis, R., Janssen, A., & Wernick, J. The implications of trauma for sexual and reproductive health in adolescence. In *Not Just a nightmare: Thinking beyond PTSD to help teens exposed to trauma.* 2019
9. Connors J., Irastorza, I., Janssen A., Kelly, B., "Child and Adolescent Medicine," The Equal Curriculum: The Student and Educator Guide to LGBTQ Health, editors Lehman J., et al. November 2019.
10. Janssen, A., et. al., "Gender and Sexual Diversity in Childhood and Adolescence," Dulcan's Textbook of Child and Adolescent Psychiatry, 3rd edition, editor Dulcan, M., (in press)
11. Busa S., Wernick J, Janssen, A., "Gender Dysphoria," The Encyclopedia of Child and Adolescent Development, DOI: 10.1002/9781119171492. Wiley, December 2020.

Invited Academic Seminars/Lectures

1. April 2006: "How to Talk to a Gay Medical Student" – presented at the National AAMC Meeting.
2. March 2011: "Kindling Inspiration: Two Model Curricula for Expanding the Role of Residents as Educators" – workshop presented at National AADPRT Meeting.
3. May 2011: Janssen, A., Shuster, A., "Sex Matters: Identity, Behavior and Development," Grand Rounds Presentation, NYU Department of Child and Adolescent Psychiatry.

4. March 2012: Janssen, A., Lothringer, L., "Gender Variance in Children and Adolescents," Grand Rounds Presentation, NYU Department of Child and Adolescent Psychiatry.
5. June 2012: Janssen, A., "Gender Variance in Childhood and Adolescence," Grand Rounds Presentation, Woodhull Department of Psychiatry
6. October 2012: "Advocating for the mental health of Lesbian, Gay, Bisexual and Transgender (LGBT) population: The Role of Psychiatric Organizations." Workshop for the American Psychiatric Association Institute of Psychiatric Services Annual Meeting.
7. March 2013: "Gender Variance in Childhood and Adolescence," Sexual Health Across the Lifespan: Practical Applications, Denver, CO.
8. October 18th, 2013: "Gender Variance in Childhood and Adolescence," Grand Rounds Presentation, NYU Department of Endocrinology.
9. October, 2014: GLMA Annual Conference: "Theory of Mind and Intolerance of Ambiguity: Two Case Studies of Transgender Individuals with High-Functioning ASD," Invited Presentation
10. October 2014: New York Transgender Health Conference: "Mental Health Assessment in Gender Variant Children," Invited Presentation.
11. November, 2014: Gender Spectrum East: "Affirmative Clinical Work with Gender-Expansive Children and Youth: Complex Situations."
12. October 2015: "Gender Dysphoria and Complex Psychiatric Co-Morbidity," LGBT Health Conference, Invited Speaker
13. October 2015: "Transgender Health Disparities: Challenges and Opportunities," Grand Rounds, Illinois Masonic Department of Medicine
14. November 2015: "Autism and Gender Variance," Gender Conference East, Invited Speaker
15. February 2016: "Working with Gender Variant Youth," New York State Office of Mental Health State Wide Grand Rounds, Invited Speaker
16. March, 2016: "Working with Gender Variant Youth," National Council for Behavioral Health Annual Meeting, Invited Speaker
17. March 2016: "Gender Variance Among Youth with Autism: A Retrospective Chart Review and Case Presentation," Working Group on Gender, Columbia University, Invited Speaker.
18. September, 2016: "Best Practices in Transgender Mental Health: Addressing Complex Issues for Gender Dysphoric and Non-Conforming Youth," DeWitt Wallace Institute for the History of Psychiatry, Weill Cornell.
19. October, 2016: "LGBTQ Youth Psychiatric Care," Midwest LGBTQ Health Symposim
20. October, 2016: "Gender Fluidity and Gender Identity Development," NYU Health Disparities Conference.
21. February, 2017: "Best Practices in Transgender Mental Health," Maimonides Grand Rounds
22. March, 2017: "Transgender Health: Challenges and Opportunities," Invited speaker, Center for Disease Control STD Prevention Science Series.
23. September 2017: "Autism and Gender Dysphoria," Grand Rounds, NYU Department of Neurology.
24. November 2017: "Consent and Assent in Transgender Adolescents," Gender Conference East.

25. November 2017: "Transgender Mental Health: Challenges and Opportunities," Grand Rounds, Lenox Hill Hospital.
26. April 2018: "Gender Trajectories in Childhood and Adolescent Development and Identity," Sex, Sexuality and Gender Conference, Harvard Medical School.
27. September 2019: "Social and Psychological Challenges of Gender Diverse Youth," Affirmative Mental Health Care for Gender Diverse Youth, University of Haifa.
28. October 2019: "Best Practices in Transgender Mental Health," Grand Rounds, Rush Department of Psychiatry.
29. February 2020: "The Overlap of Autism and Gender Dysphoria," Grand Rounds, Northwestern University Feinberg School of Medicine Department of Psychiatry
30. February 2020: "Gender Dysphoria and Autism," Grand Rounds, University of Illinois at Chicago Department of Psychiatry
31. September 2021: "Gender Diversity and Autism," Grand Rounds, Kaiser Permanente Department of Pediatrics
32. October 2021: Gender Dysphoria and Autism," Grand Rounds, Case Western Reserve University Department of Psychiatry.

Selected Invited Community Seminars/Lectures

1. April 2012: "Gender and Sexuality in Childhood and Adolescence," Commission on Race, Gender and Ethnicity, NYU Steinhardt Speakers Series.
2. February 2013: "Supporting Transgender Students in School," NYC Independent School LGBT Educators Panel, New York, NY.
3. June 2013: "LGBT Health," Presentation for Neuropsychology Department
4. August 2013: "Chronic Fatigue Syndrome: Etiology, Diagnosis and Management," invited presentation.
5. September 2013: Panelist, "LGBTQ Inclusive Sex Education."
6. April 2015: Transgender Children, BBC News, BBCTwo, invited expert
7. January 2016: Gender Dysphoria and Autism – Ackerman Podcast - http://ackerman.podbean.com/e/the-ackerman-podcast-22-gender-dysphoria-autism-with-aron-janssen-md/
8. February 2016: "Best Practices in Transgender Mental Health," APA District Branch Meeting, Invited Speaker.
9. May 2016: "Best Practices in Transgender Mental Health," Washington D.C., District Branch, APA, Invited Speaker
10. July 2016: "Transgender Youth," Union Square West
11. November 2017: "Understanding Gender: Raising Open, Accepting and Diverse Children," Heard in Rye, Conversations in Parenting.
12. January 2018: "The Emotional Life of Boys," Saint David's School Panel, Invited Speaker
13. June 2018: "Supporting Youth Engaged in Gender Affirming Care," NYU Child Study Center Workshop.
14. October 2018: "Medicine in Transition: Advances in Transgender Mental Health," NYCPS HIV Psychiatry and LGBT Committee Meeting.
15. October 2018: "Understanding Gender Fluidity in Kids," NYU Slope Pediatrics.
16. October, 2021: Issues of Ethical Importance: Health Care for Pediatric LGBTQ+ Patients, American Medical Association, Invited Talk

Selected Mentoring of Graduate Students, Residents, Post-Doctoral Fellows

2013-2014	Rebecca Hopkinson, Adult Psychiatry Resident, Provided clinical supervision for one year and training in transgender mental health. Dr. Hopkinson works as at Attending Child Psychiatrist at Seattle Children's and works with transgender youth
2013-2014	Sara Weekly, Chief Child and Adolescent Psychiatry Resident. Provided clinical supervision. Dr. Weekly is now an attending physician at Bay Area Children's Association in Oakland, California.
2013-present	Elizabeth Glaeser, Undergraduate Student. Provided research and administrative supervision. Elizabeth is now a PhD candidate in Psychology at Columbia and the director of research at the Gender and Family Project
2014-2015	Laura Erickson Schroth, Adult Psychiatry Resident. Provided clinical supervision for one year and training in transgender mental health. Dr. Erickson Schroth is the editor of Trans Bodies, Trans Selves, and Attending Psychiatrist at the Hetrick Martin Institute
2015-2016	Brandon Ito, Child Psychiatry Fellow, Provided Clinical Supervision. Dr. Ito is now an Attending Child and Adolescent Psychiatrist at UCLA.
2015-2017	Howard Huang, Undergraduate Student. Provided research supervision. Howard is now a PhD candidate in psychology at Boston College, pursuing work in gender and sexuality with published peer-reviewed literature.
2016-2019	Samantha Busa, PsyD, Post-Doctoral Fellow. Provide clinical supervision in transgender helath. Dr. Busa joined the NYU Gender and Sexuality Service as faculty in 2017.
2016-2019	Lara Brodsinzky, PhD, Attending Psychologist. Provide clinical supervision in transgender health. Dr. Brodsinzky is an Attending Psychologist on the NYU Pediatric Consultation Liaison Service.
2016-2019	Jeremy Wernick, MSW. Provide clinical and administrative supervision.
2017-2019	Serena Chang, Child Psychiatry Fellow; provide clinical and research supervision.

Major Research Interests

Gender and Sexual Identity Development
Member, Research Consortium for Gender Identity Development
Delirium: Assessment, Treatment and Management
Suicide Prevention

Research Studies

Study Title	IRB Study#	Dates
Suicide Attempts Identified in a Children's Hospital Before and During COVID-19	2021-4428	2/26/21-present
Lurie Children's Sex & Gender Development Program Clinical Measure Collection	2019-2898	2019-present
Adolescent Gender Identity Research Study (principal investigator) - unfunded	s15-00431	4/15-5/19
Co-Occurrence of Autism Spectrum Disorders and Gender Variance: Retrospective Chart Review (principal investigator) - unfunded	s14-01930	10/14-5/19

Expert Consensus on Social Transitioning Among Prepubertal Children Presenting with Transgender Identity and/or Gender Variance: A Delphi Procedure Study (principal investigator) - unfunded	s13-00576	3/16-5/19
Co-Occurrence of ADHD/Gender Dysphoria (principal investigator) - unfunded	s16-00001	1/16-5/19
PICU Early Mobility- unfunded	s16-02261	12/16-5/19
Metformin for Overweight and Obese Children and Adolescents with Bipolar Spectrum Disorders Treated with Second-Generation Antipsychotics – Funded by PCORI	s16-01571	8/16-5/19

Other

Grant Funding:
Zero Suicide Initiative, PI Aron Janssen, M.D.
Awarded by Cardinal Health Foundation, 9/2020
Total amount: $100,000

Direct income for the department generated by teaching Sex Matters: Identity, Behavior and Development for the Child and Adolescent Mental Health Studies (CAMS) undergraduate program at NYU:

Time Frame	Income
2011 - 2016	$1,968,950

Selected Media Appearances:

Guest Expert on Gender Identity on Anderson, "When Your Husband Becomes Your Wife," Air Date February 8th, 2012
Guest Host, NYU About Our Kids on Sirius XM, 2011
NYU Doctor Radio: LGBT Health, September 2013
NYU Doctor Radio: LGBT Kids, November 2013
NYU Doctor Radio: LGBT Health, July 2014
NYU Doctor Radio: Gender Variance in Childhood, December 2014
BBC Two: Transgender Youth, April 2015
NYU Doctor Radio: Transgender Youth, June 2015
Fox-5 News: Trump's proposed military ban and Transgender Youth, July, 2017
Healthline.com: Mental Health Experts Call President's Tweets 'Devastating' for Trans Teens, July, 2017
Huffington Post: What the Military Ban Says to Our Transgender Youth: August, 2017
Metro: How to talk to your transgender kid about Trump, August 2017
NYU Doctor Radio: Transgender Youth, August 2017

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF WEST VIRGINIA
CHARLESTON DIVISION

B.P.J. by her next friend and mother, HEATHER JACKSON,

Plaintiff,

vs.

No. 2:21-cv-00316

WEST VIRGINIA STATE BOARD OF EDUCATION, HARRISON COUNTY BOARD OF EDUCATION, WEST VIRGINIA SECONDARY SCHOOL ACTIVITIES COMMISSION, W. CLAYTON BURCH in his official capacity as State Superintendent, DORA STUTLER, in her official capacity as Harrison County Superintendent, and THE STATE OF WEST VIRGINIA,

Defendants,

LAINEY ARMISTEAD,

Defendant-Intervenor.

VIDEOTAPED DEPOSITION OF
JAMES M. CANTOR, PhD
Monday, March 21, 2022
Volume I

Reported by:
ALEXIS KAGAY
CSR No. 13795
Job No. 5122845
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IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF WEST VIRGINIA
CHARLESTON DIVISION

B.P.J. by her next friend and mother, HEATHER JACKSON,

Plaintiff,

vs.

WEST VIRGINIA STATE BOARD OF EDUCATION, HARRISON COUNTY BOARD OF EDUCATION, WEST VIRGINIA SECONDARY SCHOOL ACTIVITIES COMMISSION, W. CLAYTON BURCH in his official capacity as State Superintendent, DORA STUTLER, in her official capacity as Harrison County Superintendent, and THE STATE OF WEST VIRGINIA,

Defendants,

LAINEY ARMISTEAD,

Defendant-Intervenor.

No. 2:21-cv-00316

Videotaped deposition of JAMES M. CANTOR, Volume I, taken on behalf of Plaintiff, with all participants appearing remotely, beginning at 9:03 a.m. and ending at 5:33 p.m. on Monday, March 21, 2022, before ALEXIS KAGAY, Certified Shorthand Reporter No. 13795.

APPEARANCES (Via Zoom Videoconference):

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APPEARANCES (Continued):

Also Present:

LINDSAY DUPHILY - VERITEXT CONCIERGE

Videographer:

DAVE HALVORSON

INDEX

EXHIBITS

Monday, March 21, 2022

9:03 a.m.

THE VIDEOGRAPHER: Okay. Good morning. We are on the record at 9:03 a.m. on March 21st, 2022. 06:03:33

This is media unit 1 in the video-recorded deposition of Dr. James Cantor, in the matter of B.P.J. by Heather Jackson versus West Virginia State Board of Education, et al., filed in the U.S. District Court for the Southern District of West 06:03:55 Virginia, in the Charleston Division. The case number is 2:21-cv-00316.

This deposition is being held virtually.

My name is Dave Halvorson. I'm the videographer here from Veritext. And I'm here with 09:03:59 the court reporter, Alexis Kagay, also from Veritext.

Counsel, can you please all identify yourselves so the witness can be sworn in.

COUNSEL SWAMINATHAN: Sure thing. 09:04:11

So this is Sruti Swaminathan with Lambda Legal, and I am counsel for Plaintiff. And I'll allow my co-counsel from Lambda Legal to start the introductions.

MS. BORELLI: This is Tara Borelli from 09:04:24

Lambda Legal, for Plaintiff.

MS. HARTNETT: Hi. This is Kathleen Hartnett from Cooley, LLP, for Plaintiff.

MR. BARR: Good morning. This is Andrew Barr from Cooley, for Plaintiff. 09:04:41

MS. REINHARDT: This is Elizabeth Reinhardt with Cooley, LLP, for Plaintiff.

MS. KANG: This is Katelyn Kang from Cooley, LLP, for Plaintiff.

MS. PELET DEL TORO: This is Valeria Pelet del Toro from Cooley, for Plaintiff. 09:04:50

MR. BLOCK: This is Josh Block from the ACLU, for Plaintiff.

THE VIDEOGRAPHER: Is that --

COUNSEL SWAMINATHAN: I believe that's everyone on our end. 09:05:15

THE VIDEOGRAPHER: Okay.

MR. TRYON: This is David Tryon. I'm with the West Virginia Attorney General's Office, representing the State of West Virginia. 09:05:24

MR. BARHAM: This is Travis Barham with Alliance Defending Freedom, Counsel for Intervenors, defending the deposition.

MR. CROPP: This is Jeffrey Cropp on behalf of defendants Harrison County Board of Education and 09:05:37

Superintendent Dora Stutler.

MS. MORGAN: This is Kelly Morgan on behalf of the West Virginia Board of Education and Superintendent Burch.

MS. GREEN: This is Roberta Green on behalf of West Virginia Secondary School Activity (sic) Commission. 09:05:52

THE VIDEOGRAPHER: Okay. If that's every- -- maybe Mr. Frampton? Is that --

MR. FRAMPTON: Sure, I'll identify myself, although I'm not really participating. 09:06:10

Hal Frampton from Alliance Defending Freedom, for the Intervenor.

THE VIDEOGRAPHER: Okay.

Okay. Can we please swear in the witness. 09:06:31

(Witness sworn.)

THE VIDEOGRAPHER: Okay. Please proceed.

JAMES M. CANTOR, PhD,

having been administered an oath, was examined and testified as follows:

EXAMINATION

BY COUNSEL SWAMINATHAN:

Q Good morning, Dr. Cantor. Thank you again 09:06:33

for your time today. As I said, my name is Sruti Swaminathan, and I'm an attorney with Lambda Legal.

I use they/them pronouns, so if you have any need to refer to me specifically, feel free to call me Counsel Swaminathan or Attorney Swaminathan. 09:06:43

I represent B.P.J., the plaintiff in this matter. And, yeah, again, thank you for -- for bearing with me today.

So how are you? 09:06:59

A I'm fine. Thank you.

Q And would you please state and spell your name for the record.

A Dr. James Michael Cantor, J-a-m-e-s M-i-c-h-a-e-l C-a-n-t-o-r. 09:07:12

Q Thank you.

And, Dr. Cantor, what pronouns do you use?

A He/him.

Q Great. So let me explain some ground rules so that the court reporter can establish a clean transcript today. 09:07:23

I'll ask you questions, and you must answer unless your counsel instructs you otherwise.

Do you understand?

A Yes, I do. 09:07:33

Q And I will note, I might be looking above you, as you can see me, the camera is just a little bit below me, so apologies for that.

Okay. And so, again, if your counsel objects to my questions, you still need to answer my questions unless they specifically instruct you not to answer. 09:07:47

Do you understand that?

A I do.

Q Great. If you don't understand my question, please let me know. I'm happy to try to rephrase it or make it clear for you. 09:07:53

If you do answer my question, I will assume that you understood. Is that fair?

A Yes. 09:08:06

Q We can take a break whenever you need. I will try to naturally break every hour or so. However, if I've asked a question or if I'm in the middle of a line of questions, I'd appreciate if you can provide me with an answer before we take a break. 09:08:17

Do you understand that?

A Yes.

Q Great. Let's do our best not to speak over each other today. And as you are doing right now, 09:08:26

please use verbal answers so that the court reporter can transcribe your answers accurately. Unfortunately, nodding your head or shaking your head cannot be captured by the court reporter.

Do you understand that? 09:08:42

A Yes, I do.

Q Great. And so before we too -- get too far along today in the -- the substantive portion, I want to note for you that we're going to be talking quite a bit about healthcare that's commonly used to 09:08:52 treat gender dysphoria for transgender people.

For the purposes of this deposition, when I say "cisgender," I mean someone whose gender identity matches the sex they were assigned at birth. 09:09:07

Do you understand?

A Yes, I do.

Q For the purposes of this deposition, when I say "transgender," I mean someone whose gender identity does not match the sex they were assigned 09:09:14 at birth.

Do you understand?

MR. TRYON: Objection; terminology.

BY COUNSEL SWAMINATHAN:

Q You can answer. 09:09:23

A I understand what you mean, yes.
Q Great. So if I refer to "care" as gender-affirming care or gender-confirming care, I am referring to medical care provided to transgender people to treat gender dysphoria. 09:09:34
Do you understand?
MR. TRYON: Objection; terminology.
THE WITNESS: To clarify, so when you say "care," you mean specifically medical care?
BY COUNSEL SWAMINATHAN: 09:09:46
Q I mean medical care.
A I understand.
Q Great. And, again, when I say "B.P.J.," I am referring to the plaintiff in the case.
Do you understand? 09:09:56
A Yes, I do.
Q Great. So you understand that you are testifying under oath today, just as if you were testifying in court; correct?
A Yes, I do. 09:10:07
Q Is there anything that would prevent you from testifying truthfully today?
A No.
Q Is there any reason you're aware of that would prevent you from completely and accurately 09:10:17

answering my questions?
A No.
Q Are you taking notes during this deposition?
A I wrote down one note to remind myself that when you use the word "care," you're referring specifically to medical care. 09:10:30
Q Okay. Have you been deposed before, Dr. Cantor?
A Yes.
Q How many times? 09:10:42
A About a dozen.
Q About a dozen.
Let's go each -- through each occurrence individually, starting with the first time you were deposed. 09:10:49
When was that, to your recollection?
A It would have been about eight to ten years ago.
Q And what was the nature of the case?
A What the diagnostic cutoffs are for -- for a formal diagnosis of pedophilia or related conditions. 09:11:01
Q And what was your role in the case?
A I was summarizing the science indicating that sexual interest in a particular age range, 11 to 09:11:16

14 years old, is diagnosable as a mental illness.
Q And what course -- court was this in?
A Oh, I don't remember the city. It was in the state of Illinois.
Q Do you, by chance, happen to remember the name of the case, either the plaintiff or the defendant? 09:11:36
A No, not offhand.
Q Okay. How about the second time you were deposed? 09:11:45
A The same situation. There were about six such cases in Illinois.
Q And so six out of the 12 or a dozen or so cases that you mentioned deal with the same subject?
A Roughly, yes. 09:12:02
Q What about the other six?
A Of those, roughly three more were a similar kind of question, but in New York State. Another one, also in New York, was pertaining to whether BDSM would count as a mental illness, but that case did not go through to completion. And then the remaining cases were about trans issues. 09:12:23
Q So about how many cases were about transgender issues?
A I think it's two others. 09:12:42

Q Could you tell me more about those two specific instances of your testimony?
A One was a -- the Josephson case, and one is the Cross case.
Q And tell me about the Josephson case. 09:13:06
When -- when did you provide -- or when were you deposed in that case?
A Roughly a year ago.
Q Roughly a year ago.
And what was your role in connection with 09:13:14
that deposition?
A To summarize the science on gender identity issues.
Q Okay. And what court was that case in?
A It was in -- I -- I believe that one was 09:13:29
Loudoun County.
Q And then the second case you mentioned was the Cross case.
A Correct.
Q And what was the nature of that case? 09:13:39
A Similar, to summarize the science on gender identity issues.
Q Was that also within the past year that you provided --
A Yes. 09:13:49

Q -- that testimony?
A Yes.
Q And was that in the same court as the Josephson case or a different court?
A A different court. 09:13:56
Q Do you remember which court that was?
A No, I don't.
Q And so we just spoke about times that you've been deposed. In any of these cases, did it require you to testify in court as well? 09:14:07
A Yes.
Q In which cases were you required to testify in court?
A Hold on. I take that back. It was one of the two New York cases that required me to testify 09:14:26 in court.
Q So not either of the cases related to transgender individuals?
A Correct.
Q Okay. And so we just spoke about testimony 09:14:40 that you've given. Have you provided expert testimony in any other litigation?
A No.
Q This is the first case in which you've provided expert testimony? 09:14:55

A I think I might have misunderstood your question. In each of these cases, I was serving as an expert witness.

Q Oh, in each of these cases, you were an expert witness, not a fact witness -- 09:15:07

A Correct.

Q -- correct? Okay.

But other than these cases, there are no other cases in which you've provided expert testimony; right? 09:15:14

A Correct.

Q Okay. Has anyone ever tried to exclude the testimony that you've provided in a case?

A The opposing counsel, but that's -- only the opposing counsel. 09:15:33

Q In how many of the 12 cases that you just mentioned to me has opposing counsel tried to exclude your testimony?

A All of them.

Q All of them? So let's go through them. 09:15:42

Sorry, apologies. I think I cut you off there.

A I guess I'm wondering about how you're using the word "tried" to exclude. When you say that, I mean, you know, try to verify my credentials and 09:15:59

determine whether I'm qualified to comment at all, but not any extraordinary, in other words, outside of routine, ensuring that I qualify as an expert.

Q So in your mind, what -- what would you categorize as extraordinary in your verse? 09:16:22

A Anything other than the questioning that we're going through right now.

Q Okay. And, to your knowledge, on what grounds did opposing counsel in these cases try to exclude your testimony? 09:16:31

A I don't --

MR. BARHAM: Objection as to form.

THE WITNESS: I don't recall the details.

BY COUNSEL SWAMINATHAN:

Q Okay. But it is your understanding that some form of this effort has happened in all 12 of the cases that you've provided expert testimony? 09:16:41

A Some form, yes.

Q Has any testimony you provided been successfully excluded in any of these 12 cases? 09:16:54

A No.

Q Okay. Did any of these cases involve prepubertal or adolescent transgender children?

A Not specific -- children, no.

Q Who did they involve in terms of transgender 09:17:13

individuals?

You spoke of two cases, correct, that focused on transgender people?

A Correct. My role was to summarize the science of those issues, not anything about a specific person. 09:17:27

Q Okay. In terms of summarizing the science, did the science that you provided testimony on focus on prepubertal or adolescent transgender children?

A It included that, but wasn't limited to prepubertal children. 09:17:41

Q Would you say that it was the focus of your testimony?

MR. BARHAM: Objection; form.

THE WITNESS: I wouldn't say focus, no. 09:17:51

BY COUNSEL SWAMINATHAN:

Q Have you ever testified regarding athletics?

A No.

Q Have you ever testified regarding transgender or gender-dysphoric athletes? 09:18:04

A No.

Q Have you ever testified regarding transgender adolescents who are participating in athletics?

MR. BARHAM: Objection; terminology.

THE WITNESS: Not as -- not specifically, but 09:18:20

they would be included as part of my summarizing the science overall.

BY COUNSEL SWAMINATHAN:

Q And how would -- or how has your summary of the science focused on transgender -- transgender adolescents in athletics? 09:18:29

A I don't think I understand the question.

Q You said that your testimony or, you know, the -- the research that you have produced in connection with your testimony on the science may encompass transgender adolescents participating in athletics; is that correct? 09:18:45

A I --

MR. BARHAM: Objection; terminology.

THE WITNESS: I don't recall the subject of athletics being relevant to any of the prior cases, no. 09:18:58

BY COUNSEL SWAMINATHAN:

Q Okay. So my apologies, I must have misunderstood. 09:19:07

So you're saying that the science that you've provided testimony on may encompass matters related to transgender adolescents; is that right?

A The topic was broadly the science of transsexuality and everything within it. So it 09:19:18

could include that, but it wasn't the topic relevant to any of those cases.

Q To your understanding, did it include that? Did your testimony focus on anything specific to transgender adolescents? 09:19:33

A No, it didn't.

Q Okay. And just to be sure --

MR. BARHAM: I'm sorry, I -- I think there may have been -- I -- I didn't catch the last word of your question, so could you kingly repeat that. 09:19:45

COUNSEL SWAMINATHAN: I apologize.

Court reporter, can you please repeat the question that I just posed to Dr. Cantor?

(Record read.)

COUNSEL SWAMINATHAN: Are you okay with that, Counsel? 09:20:09

THE WITNESS: It -- it included transgender adolescents, but not specifically athletes.

BY COUNSEL SWAMINATHAN:

Q Right. I understand. I -- I just want to make sure your counsel is okay, has understood the question. 09:20:17

MR. BARHAM: Thank you.

COUNSEL SWAMINATHAN: Great.

///

BY COUNSEL SWAMINATHAN:

Q And, again, Dr. Cantor, you've not been retained as an expert witness in any other case that we haven't already talked about; right?

A Correct. 09:20:35

Q Great. Did you prepare for this deposition today?

A Yes, I did.

Q Without disclosing any communications you may have had with counsel, what did you do to prepare 09:20:47 for today's deposition?

A Reread my notes, which I've been accumulating for many years, reread individual papers that were relevant and ensured that I was including anything new that came out since the last time I went through 09:21:05 the literature.

Q So who provided you with the documents that you just mentioned?

I heard your own notes and then new articles that may have come out in the -- in the past few 09:21:18 years on this literature.

And apologies, could you remind me what else you said you reviewed?

A It was my -- oh, and a scan of the literature to see if there was anything new. 09:21:31

Q And so was this all research that you independently conducted, or did anyone provide you with any of the materials that you reviewed?
A All me.
Q Did you meet with your defense counsel? 09:21:43
A We met in rehearsal for today, but not over the material -- of my research of the material.
Q Who are your attorneys, by the way?
A Who are my attorneys?
Q Who is your attorney today? Who is 09:22:07
representing you in connection with this deposition?
A Just Travis.
Q Just Travis.
And so you said you've met with Travis once in preparation for this deposition; right? 09:22:18
A We met briefly yesterday, and then there was a meeting on Friday to rehearse today.
MR. TRYON: Counsel, I would also -- this is David Tryon. I will also note that I also represent Dr. Cantor in this deposition. 09:22:34
COUNSEL SWAMINATHAN: Great. Thank you, Mr. Tryon.
And did you meet with Dr. Cantor at all in preparation for this deposition?
MR. TRYON: I'm sorry, are you asking me that 09:22:48

question?

COUNSEL SWAMINATHAN: Yes.

MR. TRYON: I think you should direct your questions to Dr. Cantor.

BY COUNSEL SWAMINATHAN: 09:22:55

Q Dr. Cantor, did you meet with Mr. Tryon in preparation for this deposition?

A Yes. He was present, virtually, on Friday.

Q On Friday, but not yesterday?

A Correct. 09:23:02

Q So beyond the scan of research that you've done in preparation for this deposition, did you review any specific documents?

A Yes. The documents are noted in my report.

Q What were those documents? 09:23:17

A As best as I can recall, they were the declarations of Dr. Adkins, Jensen, Safer and the related rebuttals.

Q Did you review any documents beyond those that you just listed that are not cited in your 09:23:38 expert report?

A No.

Q Did you conduct any additional research to prepare for this deposition beyond what you did for your expert report? 09:23:52

A No.
Q Did you discuss this case with anyone other than your attorneys?
A No.
Q Did you bring anything with you today? 09:24:05
A A blank notepad, the aforementioned documents so I could refer to them on the way, and the details of the address to how to get here.
Q Did anyone get you a water bottle?
A And a water bottle. 09:24:23
Q Great. I'm glad you have that.
Okay. So if you could please go into the "Marked Exhibits" folder, I'm going to introduce tab 2, which is a document that has been marked as Exhibit 45 -- 44, apologies. 09:24:37
(Exhibit 44 was marked for identification by the court reporter and is attached hereto.)
MR. BARHAM: Counsel, I'm in the "Marked Exhibits" folder, and I'm not seeing this document.
COUNSEL SWAMINATHAN: Apologies, my -- 09:24:52
I'll -- I'll let you know when -- when it's in there, and then you might need to give the -- the page a little bit of a refresh. It's -- it takes a moment to load.
Counsel, are you able to see the document and 09:25:35

is the witness able to see the document now?

MR. BARHAM: Yes.

COUNSEL SWAMINATHAN: Great.

BY COUNSEL SWAMINATHAN:

Q Dr. Cantor, why don't you take a moment to review what the document is. 09:25:46

A I'm sorry, this is a 100-page document?

Q Take a look at the first few pages to get your understanding of what it is.

So have you seen this document before? 09:26:15

A Yes. This is my -- the report I prepared for today.

Q Did you author this document?

A Yes, I did.

Q Did anyone else help you draft this document? 09:26:27

A No.

Q When was this document created?

A Both -- primarily, over the course of the last two years or so.

Q Is there an execution date on the document? 09:26:48

I believe it might be on page 2.

A I see a date on page 46, 31 March 2021.

Q On page 6, you said?

A 36 (sic), I think that was.

And the date of execution is 22 June 2021. 09:27:14

Q Great. Thank you so much.

And, Dr. Cantor, why was this document created?

A In preparation for today, that was the request put to me from the attorneys of West Virginia. 09:27:26

Q Thank you.

And if you could please go into the "Marked Exhibits" folder, I'd like you -- I'd like to introduce tab 1, which has been marked as Exhibit 45. 09:27:38

(Exhibit 45 was marked for identification by the court reporter and is attached hereto.)

COUNSEL SWAMINATHAN: Counsel and Dr. Cantor, let me know when you're able to -- to see that document. 09:28:06

BY COUNSEL SWAMINATHAN:

Q Do you have it up in front of you?

A Yes, I do.

Q Great. Have you seen this document before? 09:28:31

A Yes, I have.

Q What is it?

A This is the report I prepared for today.

Q Did you author this document?

A Yes, I did. 09:28:44

Q Did anyone else help you draft this document?

MR. BARHAM: Counsel, I'm going to interrupt -- interrupt you because I'm confused why -- how this document differs from the prior one that we just reviewed. 09:29:01

COUNSEL SWAMINATHAN: So my understanding is that this is Dr. Cantor's report executed on February 23rd, 2022, and the prior document was Dr. Cantor's expert report submitted in conjunction -- in connection with the preliminary injunction motion, dated June 22nd, 2021. 09:29:20

MR. BARHAM: Thank you.

BY COUNSEL SWAMINATHAN:

Q So, Dr. Cantor, when was this document created? 09:29:34

A This was executed on February 23, 2022.

Q And why was this document created?

A In preparation for today, at the request of the attorneys.

Q Great. And if you can, can you please turn to page 69 of this PDF. Apologies for the long scroll. 09:29:51

So what you should see on page 69 is the start of Appendix 1 to your expert report.

A Yes. 09:30:46

Q Are you there?
Have you seen --
A Yes.
Q -- this document before?
A Yes, I have. 09:30:50
Q What is it?
A That's my CV.
Q And did you author this document?
A Yes, I did.
Q Did anyone assist you in authoring this 09:30:56
document?
A No.
Q When was it created?
A It's been accumulating over the course of my
career. 09:31:07
Q And is there anything in this copy of your CV
that needs to be updated or corrected?
A One second.
Q Yeah, please take a moment to review. I
believe there are 32 pages. You've done a lot over 09:31:21
the course of your career.
A Nothing to add. It's current.
Q Great. So I want to talk to you a bit about
your education history.
So, Dr. Cantor, where did you complete your 09:31:52

undergraduate education?
A Rensselaer Polytechnic Institute.
Q It's commonly known as RPI; right?
A Yes, it is.
Q Did you enjoy your time at RPI? 09:32:07
A Yes.
Q What did you study?
A Interdisciplinary science, with concentrations in computer science, mathematics and physics. 09:32:18
Q And so my next set of questions pertain just to your undergraduate education at RPI.
As a part of your formal education for your undergraduate degree, did you ever take any courses focused on child psychology? 09:32:33
A As an undergraduate, no.
Q As an undergraduate.
A No.
Q How about adolescent psychology?
A No. 09:32:42
Q Did you conduct any research on those subjects?
A No.
Q As a part of your formal education for your undergraduate degree, did you ever take any courses 09:32:56

regarding transgender or gender-dysphoric people?
A No.
Q Did you ever conduct any research concerning transgender or gender-dysphoric people?
A No. 09:33:09
Q Did you have any other educational training related to transgender or gender-dysphoric people at RPI?
A No.
Q Okay. What did you study next? 09:33:18
A After that, I did start studying psychology at the graduate level.
Q And where did you complete -- I see here a Master's of Arts; correct?
A Correct. 09:33:33
Q Where did you complete your Master's of Arts?
A Boston University.
Q And so I believe you said you studied psychology; is that correct?
A Correct. 09:33:47
Q So apologies for my naivety here, but as you were getting your Master's of Arts, would that be a major in psychology or a psychology focus?
A At the graduate level, there are no majors. The degree is in that subject matter specifically. 09:33:59

So it would be a Master of Arts in psychology.

Q I appreciate that clarification. Thank you.

When did you graduate?

A 1992.

Q And so my next set of questions are going to pertain solely to your Master's education. 09:34:18

So as part of your formal education for your Master's of Arts, did you ever take any courses focused on child psychology?

A Yes. 09:34:31

Q Can you describe those courses to me?

A The course specifically was in cognitive development and testing.

Q And how about adolescent psychology?

A It was blended in. 09:34:45

Q Okay. And so beyond this one course in cognitive development, were there any other courses focused on child or adolescent psychology?

A Not focused on them, no.

Q Okay. Did you conduct any research on those subjects, specifically speaking about child and adolescent psychology? 09:34:58

A No.

Q As a part of your formal education for your Master's of Arts, did you ever take any courses 09:35:15

regarding transgender or gender-dysphoric people?
A No.
Q Did you ever conduct any research concerning transgender or gender-dysphoric people?
A No. 09:35:30
Q And so what did you study next after your time at Boston University?
A I worked for several years as a research assistant in neuropsychology and then began my doctoral studies in psychology. 09:35:50
Q So how long were you a research assistant in neuropsychology?
A About three years.
Q So you took a three-year gap between pursuing your doctorate degree, after completing your 09:36:02 Master's of Arts?
A Roughly, yes.
Q And where did you spend those three years as a research assistant?
A I remained in Boston -- remained in Boston -- 09:36:12 remained in Boston.
COUNSEL SWAMINATHAN: I apologize. Did anyone else hear that a few times or --
BY COUNSEL SWAMINATHAN:
Q Are you able to hear me clearly, Dr. Cantor? 09:36:25

A I think so.
Q Okay. Cool. Great. Thank you.
And so where -- where in Boston did you complete that research assistant three-year position? 09:36:36
A It was the -- it's listed on my CV. I don't immediately recall the formal name of the hospital.
Q Okay. Would it be the Queen Elizabeth Hospital?
A No. 09:36:52
Q No?
A It was the Boston VA, part of their Memory Disorders Research Center, which predates when I began recording my jobs on my CV.
Q Okay. So that -- that job is -- 09:37:19
(Simultaneous speaking.)
A Correct. It was -- it was at the Boston VA, which has a formal name that I don't recall, and I was in the Memory Disorders Research Center.
Q Great. And just for -- for my clarity, it is not listed on your CV; correct? 09:37:32
A Correct.
Q Okay. And so you said you -- after you finished your research assistant in neuropsychology, three-year experience, you went on to get your 09:37:47

doctorate degree; is that right?
A Yes.
Q Again, apologies if I botch the -- the language here, but what did you focus on as a part of your doctorate degree? 09:38:03
A Clinical psychology.
Q Clinical psychology.
And where did you complete your doctorate degree?
A McGill University. 09:38:12
Q So, again, my next set of questions pertain solely to your time at McGill.
So as part of your formal education for your doctorate degree in clinical psychology, did you ever take any courses focused on child psychology? 09:38:28
A Not courses focused on it, no. The design of the program at McGill often blended child, adolescent and adult psychology together.
Q I see. Can you describe that a bit more?
A For example, in learning to do testing, one would be trained both in the standard intelligence test for adults as well as the standard intelligence test for children. 09:38:50
Q Thank you. I appreciate that.
And so, you know, my question pertaining to 09:39:06

adolescent psychology, it's your understanding that the courses were a blend of child, adolescent and adult psychology; correct?

A Many of them, yes.

Q Many of them. 09:39:17

And you have never specifically taken a course that focused solely on adolescent psychology at McGill; right?

A Correct.

Q Okay. Did you, as a part of your normal 09:39:28 education, ever take any courses regarding transgender or gender-dysphoric people at McGill?

A Not any courses focused on it, but there were courses focused on human sexuality, which, of course, included transsexuality. 09:39:50

Q Can you describe that a bit more? Why would your course on human sexuality include transsexuality?

A Why would it include?

Q Let me rephrase it. How did it include? 09:40:00

A By summarizing the existing research at the time and what was thought in the field at the time.

Q And how many courses would you say you took that focused on human sexuality?

MR. BARHAM: Objection; terminology. 09:40:18

MR. TRYON: Objection. Dave Tryon speaking.

THE WITNESS: The organization -- the organization of a doctoral program wasn't around courses at all. The primary focus of -- at the doctoral level is on performing research, learning how to perform research and proper research methodology in whatever field the student is pursuing. 09:40:38

In my case, that was sexuality. So everything I did at the doctoral level was one way or another targeted towards sexuality, even though there were -- even if not as part of the formal course. 09:40:49

BY COUNSEL SWAMINATHAN:

Q That is very helpful. I obviously do not have a doctorate degree, so that's a helpful explanation for me to understand how the program is structured. 09:41:01

So let me ask another question.

How much of your research, in your study of sexuality, concerned transgender and gender-dysphoric people in particular? 09:41:13

MR. BARHAM: Objection; terminology.

You can answer, if you can.

THE WITNESS: It's a little hard to estimate. 09:41:34

Roughly 10 to 20 percent was specifically on trans-related issues, and in others, because trans populations were -- were included one way or another, there was a little bit of all of them.

BY COUNSEL SWAMINATHAN: 09:41:52

Q And what was the nature of that research, typically, in the 10 to 20 percent that you had just mentioned?

A Primarily brain development, cognitive development, and I'm also called upon, very 09:42:04 frequently, to consult in the statistics and how to analyze existing data.

Q Okay. Did you have any other educational training at the doctorate level related to transgender people? 09:42:21

A What do you mean, educational training?

Q Beyond the independent research that you conducted or the research that you conducted with supervision at McGill, did you have any other educational training, such as a practicum, related 09:42:34 to transgender people?

MR. TRYON: Objection; form of the -- form of the question.

THE WITNESS: Not practicum related specifically to transgender people, but I did 09:42:50

practicum related to human sexuality, which necessarily included transgender people.

BY COUNSEL SWAMINATHAN:

Q Can you describe that practicum?

A I was seeing patients for -- mostly for one-on-one therapy, regardless of the issue that they came in with. That can be anything from sexual dysfunctions, curiosities about their own sexual interests, and dysphoric transgender issues. 09:43:05

Q Got it. And you said you were seeing patients. How old were these patients, typically? 09:43:20

A Young adults and up.

Q And what do you understand "young adults" to mean, in terms of an age?

A Late teens. 09:43:34

Q So late teens and onward you would --

A Yes.

Q Okay. About how many patients do you think you've seen during your time at McGill in -- in these practica that you just spoke about? 09:43:52

A Roughly 30.

Q Okay. Thank you.

And so what did you do after obtaining your doctorate degree?

A I continued as a postdoctoral researcher at 09:44:07

the University of Toronto and at the Centre for Addiction and Mental Health.

Q Is it okay with you if I refer to the Centre for Addiction and Mental Health, as CAMH?

A Yes. 09:44:26

Q Is it commonly known as CAMH, or am I --

A Usually they pronounce it CAMH.

Q CAMH. I will do the same.

COUNSEL SWAMINATHAN: And, Court Reporter, that is C-A-M-H when I refer to "CAMH." 09:44:38

BY COUNSEL SWAMINATHAN:

Q Okay. Can you describe your fellowship experience at CAMH?

A I started at -- there was an overlap year between the doctoral studies and my postdoctoral 09:44:50 studies. The final year of a Ph.D. is an internship program, which is very much like an advanced practicum program.

Within the internship, I was half-time of the entire year in their Gender Identity Clinic and 09:45:05 half-time for a full year in their Sexual Behaviours Clinic, which worked primarily with sexual offenders. I continued that work and continued the related research then for the seven years after receiving my doctorate, staying at the same 09:45:24

institution.

The -- the projects themselves were primarily focussed on brain function and development of each of the sexual issues.

Q Got it. And so you said during your internship period you had a position with the Gender Identity Clinic and then separately the Sexual Behaviours Clinic; is that correct? 09:45:34

A Yes.

Q What responsibilities did you have during your time in those clinics? 09:45:46

A I was conducting one-on-one therapy with individual people, pursuing or wondering if they should pursue medical transition, group therapy of people just living their lives as trans people and requiring support, and among the sexual -- in the SBC, in the Sexual Behaviours Clinic, with the sex offenders, it was rehabilitation. 09:46:06

Q And what qualified you to provide the one-on-one therapy that you just spoke about for individuals pursuing medical transition and group therapy? Was there any additional certificate or training that you needed in order to provide this therapy? 09:46:25

A The training of those issues was -- for those 09:46:39

issues is -- it's a lot of reading and then one-on-one study with other experts who are extremely experienced with -- with trans issues. I studied under Ray Blanchard at CAMH.

Q Did you study under anyone else besides Ray Blanchard? 09:47:03

A There were other instructors. He ran the lab. The other primary input to my education was a trans clin- -- she herself was a trans clinician, Maxine Petersen. 09:47:24

Q And so did either Ray Blanchard or Maxine Petersen serve as a supervisor to you in each of those positions?

A Yes. Both of them.

Q Okay. Did you have anyone to supervise under you in those positions at the Gender Identity Clinic and the Sexual Behaviours Clinic? 09:47:35

A Not while I was an intern or -- not while I was an intern and not while I was a postdoc.

Q What did you do next, after interning at those clinics? 09:47:58

A After the internship and I received my doctorate, then I was appointed as a postdoctoral fellow at CAMH.

Q So my next set of questions pertain to your 09:48:08

fellowship.

So as a part of your fellowship, did your work focus on child psychology?

A Did my focus -- it didn't focus on child psychology, no. 09:48:25

Q And apologies, can we go back one minute to -- you -- you had stated that you provided one-on-one therapy to individuals pursuing medical transition/group therapy.

What was the average age of those patients that you provided the one-on-one therapy to? 09:48:37

A Average age?

Q Yeah.

A Early 40s.

Q What do you think was the youngest age of the patient, to your recollection? I understand it was a bit of time ago. 09:48:51

A Youngest would have been late teens, early 20s.

Q Okay. Great. And, sorry, back to your fellowship. We just spoke about child psychology, and you mentioned that it did not focus on child psychology; correct? 09:49:03

A Correct.

Q How about adolescent psychology? 09:49:15

A Again, it didn't focus on adolescent psychology, but most of the assessments that we were doing and the research we were doing was entire lifespan. So, of course, childhood and adolescence is a predominant part of that, but not the focus of it. 09:49:34

Q I see. And so, again, you'll have to educate me a bit, but as a part of your postdoctoral fellowship, do you take any courses?

A No. 09:49:48

Q No? It's --

A Oh, I should take that back. There are no courses built into the program itself, but I often opted to take extra courses just to fill in extra material that I needed, such as in neuroscience or similar advanced statistics. 09:49:59

Q So beyond neuroscience, what other courses did you elect to take during your postdoctoral fellowship?

A Just those two deals, neuroscience and statistics. 09:50:12

Q And statistics. Okay.

And were those, like, online courses, or were they courses offered through CAMH?

A They were courses through the Univer- -- 09:50:22

through the University of Toronto. CAMH is a teaching hospital of the University of Toronto.

Q Great. And so, as part of your fellowship, did any of your work focus on transgender or gender-dysphoric adults? 09:50:38

A Not at that time, no.

Q What about transgender or gender-dysphoric adolescents?

A Not at that time, no.

Q Okay. Have you completed any other studies? 09:50:57

A Altogether, I -- oh, when you say "studies," you don't mean published studies; you mean --

Q Right. Educational pursuits of degrees and things like that.

A No. That's my full formal education. 09:51:14

Q And I don't mean to say that you haven't done so much already. I just wanted to make sure that we've covered all of the bases.

And what is your current occupation right now? 09:51:26

A I'm in private practice as a clinical psychologist.

Q And where do you conduct your private practice?

A In Toronto. 09:51:35

Q In Toronto. Okay.

So I see on page 1 and 2 of your CV, which hopefully you still have in front of you, you list your employment history. I would love to walk through your employment history, but if it's okay with you, in chronological order. So if we can turn to page 2. 09:51:54

A Yes.

Q I see that you completed predoctoral practicum at the Queen Elizabeth Hospital in Montreal, Canada; is that correct? 09:52:07

A Yes.

Q And that was in the department of psychiatry?

A Yes.

Q And you were there from May 1994 to December 1994; is that correct? 09:52:16

A Yes.

Q What was your title in this position?

A They used a French word that I don't remember. A "stagiaire." A -- a local Montreal, Quebec, term. The best English translation would be trainee in psychology. 09:52:37

Q Do you speak French?

A No, I don't.

Q Trainee. Okay. Great. 09:52:51

Can you tell me a bit about your work in this position?

A My focus then was general psychotherapy with outpatients who would typically come in to that clinic with a series of disorders, mainly depressions and anxieties. 09:53:08

Q And did you work in this position focus on children?

A No.

Q What about adolescents? 09:53:17

A Didn't focus on them, no.

Q No. So you predominantly worked with adults who came in with depression and anxiety disorders?

A Correct.

Q Okay. And then I see that you completed a predoctoral practicum at the Royal Victoria Hospital in Montreal; is that right? 09:53:31

A Yes.

Q And this was in the sex and couples therapy unit? 09:53:45

A That's correct.

Q And you were there for a little under four years. It says September 1993 to June 1997; is that right?

A Correct. I continued seeing clients there 09:53:55

over the course of my doctoral studies.

Q Got it. Okay.

So can you tell me about your work in this position and whether you had a similar French title there? 09:54:07

What -- what was your title?

A My -- I don't remember -- I don't remember my title.

Q Okay. No problem.

A It was in English. It's an English-speaking hospital. My functions there were sex therapy and couples therapy, the full range of sexual disorders and the range of issues that -- that interfere with romantic relationships. 09:54:19 09:54:34

Q Got it. So did the majority of your work in this position focus on adults?

A Yes.

Q Okay. And in this position, did you conduct any research or, you know, have any, like, work experience in the field of transgender or gender-dysphoric people? 09:54:49

A Not specific to them, no.

Q Okay. And then I see that you were a teaching assistant at McGill in the Department of Psychology; is that right? 09:55:05

A Yes.
Q And was this during your doctorate degree as well?
A Yes.
Q Okay. And so that was from September 1993 to May 1998 -- 09:55:13
A Yes.
Q -- is that right?
Okay. Who were you a teaching assistant for? Was it for a professor, or were you a general teaching assistant for the program? 09:55:25
A Two different professors. One was Rhonda Amsel for statistics courses, and the other was Irv Binik for sexuality courses.
Q Can you repeat the name of the professor who focused on sexuality courses? 09:55:41
A Irv, I-r-v, Binik, B-i-n-i-k.
Q And so what courses within sexuality did Irv Binik teach?
A The name of the course itself was Human Sexuality. 09:55:58
Q It was called Human Sexuality. Okay.
And has he taught any other courses at McGill, to your knowledge, or during the time that you were there? 09:56:07

A I think that's the only course he taught while I was there, yes.

Q So in your role as a teaching assistant, were you required to conduct any research on transgender or gender-dysphoric people? 09:56:28

A As a part of that course, no.

Q As a part of that course. No?

A Correct. Not as part of that course.

Q Okay. And then you went on to work as a clinical psychology intern, as we spoke about, at CAMH; right? 09:56:45

A Correct.

MR. BARHAM: Counsel, we've been going about an hour. Would this be a natural time for a five-minute break? 09:56:55

COUNSEL SWAMINATHAN: Absolutely. Let's take a break, and we can come back at 10:05, if that works.

Do you want to take a seven-minute break?

MR. BARHAM: Sure. That sounds good. 09:57:05

COUNSEL SWAMINATHAN: Okay. We can go off the record.

THE VIDEOGRAPHER: Yes, we are going off the record at 9:57 a.m., and this is the end of Media Unit No. 1. 09:57:12

(Recess.)

THE VIDEOGRAPHER: All right. We are back on the record at 10:08 a.m., and this is the beginning of Media Unit No. 2.

Go ahead, please. 10:08:34

BY COUNSEL SWAMINATHAN:

Q Okay. Dr. Cantor, before the break, you testified that you had studied under two individuals, Blanchard and Petersen; is that correct? 10:08:46

A Yes.

Q And that's Ray Blanchard and Maxine Petersen; right?

A Yes.

Q And you mentioned that they are extremely knowledgeable on issues of transgender identities and gender-dysphoric people; right? 10:08:56

A Yes.

Q And their focus is -- they -- they focus on adults who identify as transgender or who suffer from gender dysphoria; right? 10:09:14

A Their writings and their careers have spanned the entire lifespan, but most of their work was with adults.

Q Adults. Okay. 10:09:31

And so we spoke about your time at the -- at CAMH as a clinical psychology intern, but then you moved to the law and mental health program, is that correct, at CAMH?

A The Sexual Behaviours Clinic is part of the law and mental health program. 10:09:49

Q Oh, okay. So let me ask it a different way.

What did you do after you were a clinical psychology intern at CAMH?

A After I was an intern was when I started my postdoctoral -- postdoctoral studies. 10:10:02

Q And so this is when you were a psychologist within the law and mental health program?

A Yes.

Q Okay. Can you tell me about your work in that position? 10:10:16

A That's when I began my brain-based research on the development of atypical human sexualities.

Q And did your work in this position focus on child psychology? 10:10:37

A It's a little hard to say. What I was researching on was brain development, which begins at conception, continues, of course, quite dramatically over the course of gestation, continues to develop over the course of childhood and 10:10:56

adolescence and ends in adulthood.

Q Got it. So this brain development research that you did, did you focus only on brain development as it relates to atypical sexualities?

A Although the questions I was asking were about human sexuality, I simultaneously needed to account for all of the other possible things that were going on in the brain; and so, therefore, they became related, even though those weren't the topics of my specific efforts. 10:11:12 10:11:35

Q Your work in this position didn't focus on children and adolescents with gender dysphoria; right?

A It's a little tough to say. It's tough to say. Everything I look at in a brain scan is an accumulation of everything that happens over life, very much of which happens in childhood and before childhood. So I was looking at the effects in the brain of everything that happened over childhood accumulated -- accumulating, but I wasn't looking during childhood. 10:11:54 10:12:10

Q It's fair to say that it didn't focus on child (sic) and adolescents with gender dysphoria; right?

MR. BARHAM: Objection; terminology. 10:12:25

THE WITNESS: It depends on what one means by "focus."
BY COUNSEL SWAMINATHAN:
Q You didn't work with children and adolescents with gender dysphoria in this position directly, did you? 10:12:33
A Not while they were children and adolescents, no.
Q Okay. Did you conduct research specifically related to children and adolescents with gender dysphoria, or did you focus more holistically on brain development from birth to adulthood? 10:12:46
MR. TRYON: Objection; form.
THE WITNESS: I didn't -- my research subjects, while they were research subjects, were no longer children, but we would often focus on events that happened during childhood and adolescence. 10:13:06
BY COUNSEL SWAMINATHAN
Q I see. So what approximate -- or age -- or what was the average age of the research subjects that you worked with? 10:13:19
A The research subjects then ran the -- the gamut from 18 to simulating.
Q Okay. And, again, this research was related to brain development as connected to atypical 10:13:40

sexualities, right, the research you --

A Yes.

Q -- you just mentioned?

Okay. Thank you.

And then you went on to be the research section head at CAMH; right? 10:13:49

A Correct.

Q And you were the section head from December 2009 to September 2012; right?

A Correct. 10:14:03

Q Great. What was your title beyond research section head in this position? Did you hold any other titles?

A Psychologist.

Q Psychologist. Okay. 10:14:15

Can you tell me about your work in this position?

Mainly what I'm trying to understand is how much of your practice was research versus clinical psychology. 10:14:30

A It's -- it's tough to pull them apart at that level. I was simultaneously doing frontline clinical work but also systematically recording the results of that work, those of my colleagues, those of my then-students in order to analyze patterns in 10:14:47

the data of what everybody was seeing.

So what was done for research purposes was also done for clinical purposes and vice versa.

Q I see. And so during your time as research section head, did any of your research involve, specifically, gender dysphoria or transgender medicine? 10:15:04

MR. BARHAM: Objection; form.

THE WITNESS: I would hesitate -- it didn't focus, but was repeatedly included. In order to do any of the -- or in order to do research on any of these topics, because they interrelate, we also -- at least indirectly, also include the other atypical sexualities. 10:15:25

BY COUNSEL SWAMINATHAN: 10:15:39

Q I see. So what was your work primarily focused on, though, during your time as research section head?

A My work, as I said, was primarily focused on how atypical sexualities develop. 10:15:52

Q And in your understanding, how do they develop?

A Well, that could be any atypical sexuality. Some -- those include pedophilia, other paraphilias, transsexuality, people who call themselves 10:16:08

hypersexual.

I also participated in research and the development of what I'll call ordinary -- the development of sexual orientation.

Q So would you say that your work was primarily focused on pedophilia and hypersexuality? 10:16:19

MR. TRYON: Objection; form.

THE WITNESS: Primarily, sure.

BY COUNSEL SWAMINATHAN:

Q And then you went on to become the head of research at the Sexual Behaviours Clinic; right? 10:16:35

A Yes.

Q And that was from November 2010 to April 2014; correct?

A Yes. 10:16:49

Q And you were still at CAMH?

A Yes.

Q Great. So can you tell me about your work in this position?

A Only my position title changed. 10:17:03

Q So your work remained the same, but you were promoted to head of research?

A Correct.

Q What is the difference between research section head and head of research? 10:17:16

A There isn't one. There was a reorganization of the departments. The titles in the department were realigned to match those in other departments.

Q I see. Thank you.

And so in this position, as you continued on, am I correct to say that your work still focused primarily on pedophilia, hypersexuality and your work with sex offenders? Is that correct? 10:17:33

A Yes.

Q Okay. And did your work, in terms of the patients you saw, at all focus on children and adolescents? 10:17:49

MR. BARHAM: Objection; form.

THE WITNESS: Not --

MR. TRYON: Objection. 10:18:06

THE WITNESS: Not while they were children and adolescents, but very many of the issues that we were dealing with were issues that occurred during childhood and adolescence.

BY COUNSEL SWAMINATHAN: 10:18:11

Q I see. But the patients themselves, at the time you saw them, were not children or adolescents; right?

A Correct.

Q Got it. And then you were a senior scientist 10:18:20

as a part of the complex mental illness program; right?

A Correct.

Q And that was from January 2012 to May 2018?

A Correct. 10:18:42

Q What was your responsibility or, you know, what were you duties under the title of senior scientist?

A The duties were the same as before, but, again, in the administrative structure of the 10:18:53 hospital, one often had dual titles.

Q I see. So when you adopted the title of senior scientist, you were still the head of research; is that correct?

A Yes. 10:19:09

Q So why did they give you this additional title?

A That was a higher rank than psychologist.

Q I see. And did your roles change at all from head of research to then adopting this dual role as 10:19:23 senior scientist and head of research?

A No. My functions were the same.

Q Did you have a change in supervision at all?

A I'm not sure what you mean.

Whom I was supervising or whom I was 10:19:41

supervised by?
Q Apologies. Was who you reported to in your prior role as head of research still the same person or group of people you reported to as senior scientist? 10:19:54
A Yes.
Q Who were those individuals?
A Oh, I don't recall his name. He was the head of the law and mental health program.
Q So the head of the law and mental health program in the 2012 to 2018 timeframe. Is that fair to say? 10:20:12
A Yes.
Q And I take it from your slight misunderstanding of my prior question that you have supervised people in those positions as well; right? 10:20:29
A Yes.
Q And so when you were a senior scientist, who did you supervise in that position?
A Students whom I was training at the time. 10:20:41
Q And so these are students of the University of Toronto?
A No. They were usually students really coming to CAMH from all over the world for their internships and their training. 10:21:02

Q I see. Okay.

And so at any given time, how many students would you say, on average, you supervise?

A Three to five.

Q Okay. And what kind of work were those students typically engaging in when they were under your supervision? 10:21:13

A A lot of the cognitive testing and treatment with people with atypical sexualities.

Q And what did -- what did their assignments look like? What -- what did they work on, when you say that they focused on cognitive treatment and atypical sexualities? 10:21:27

A There was a great deal of -- of testing. Our object was to try to record, objectively, what other clinicians were perceiving subjectively. 10:21:45

Q And how did you do that? How did you -- how did your clinic test objectively?

A Sometimes through document checks. Sometimes through formal testing, using standardized instruments. 10:22:03

Q Okay. And so in your position as senior scientist and, you know, under -- while you were supervising these CAMH interns, did you ever work directly with children or adolescents with gender 10:22:21

dysphoria?
A Directly, no.
Q Did your testing ever involve issues pertaining to child or adolescent psychology?
A Issues pertaining to, yes. 10:22:39
Q What would you describe those issues as?
A Events occurring during those periods of life.
Q And how would you obtain data on those events? 10:22:52
A Sometimes through interview with the patient. Sometimes through review of documents.
Q Got it. And so when you say you've interviewed the patients, you're interviewing them as adults, and they're recounting their childhood 10:23:05 experiences; correct?
A Yes.
Q And when you say "records," who provides you with the medical records of these patients?
A Typically, they were provided by a court, 10:23:18 parole or probation officers or the patients' lawyers.
Q I see. Okay. So how -- how do these patients come to you? How do you -- or a better question is, how do you find these patients that you 10:23:34

work with?

A Well, I didn't really find them at all. Typically, these would be assigned to the hospital, and then the hospital would get them to the appropriate clinic, and then I saw everybody who came to that clinic, or I was ultimately responsible for the research going on with everybody in that clinic. 10:23:48

Q I see. So how -- or why would these patients be referred to your hospital? 10:24:00

MR. TRYON: Objection.

THE WITNESS: Either through --

MR. BARHAM: Objection as to form.

THE WITNESS: Typically, they were -- they had committed a sexual offense and served their sentence and were being released to parole and probation, and so the parole and probation system wanted as much information as possible in order to put the person -- to help maximize the person's benefit from their -- from their rehabilitation time and from their parole and probation time. 10:24:11 10:24:27

Other people self-referred because they had a question or concern with some issue and there was nobody else with the expertise to be able to answer it -- to be able to address it. 10:24:42

BY COUNSEL SWAMINATHAN:

Q Two quick follow-up questions.

So what was most typically the offense that these patients had committed when they came to your hospital? 10:24:51

MR. TRYON: Objection.

THE WITNESS: I would hesitate to say to the hospital. But the ones who ended up in my clinic were there specifically for a sex-related -- sex-related reason. Roughly two-thirds of those 10:25:03 would be related to or potentially related to a sexual offense.

BY COUNSEL SWAMINATHAN:

Q Can you describe for me what you mean by "sexual offense"? What does sexual offense 10:25:18 encompass?

MR. TRYON: Objection.

And before you answer, I just -- I don't know what HIPAA laws are in Canada, but I just want to caution the witness to make sure that you're not 10:25:28 violating any confidentiality requirements of -- of Canadian law.

COUNSEL SWAMINATHAN: Thank you, Counsel. Your objection is noted.

///

BY COUNSEL SWAMINATHAN:

Q You can answer, Dr. Cantor.

A I understand.

Typically, these were touching of a child or child pornog- -- or child pornography possession. 10:25:42

Q Thank you. I appreciate that.

So you also said that some of these patients were self-referred; right?

A Yes.

Q Approximately what percentage of your patients were self-referred as opposed to coming to you from a different -- coming to the hospital from a different method? 10:25:55

A Roughly a quarter to a third.

Q I appreciate it. 10:26:13

And then your position has changed again, but maybe you can let me know if -- was there any difference between your role as a senior scientist and a senior scientist, inaugural member, as noted on your resumé? 10:26:29

A No, there was no difference.

Q What -- what does it mean to be an inaugural member?

A It was -- it was an inaugural -- an inaugural member of that now newly formed institution. It was 10:26:45

a large donation to the hospital, which, again, triggered a another reorganization.

Q Oh, okay. So what was the Campbell Family Mental Health Research Institute previously known an as? 10:27:01

A It wasn't previously known. The Campbell family was the source of the large donation which triggered the renaming and the reorganization.

Q I see. So it was -- it's completely separate from the complex mental illness program or the 10:27:10 Sexual Behaviours Clinic?

A I don't recall the administrative details, but as I say, it was a shuffling rather than a -- it was more a shuffling than anything else.

Q So were the people that you worked with in 10:27:24 that position largely the same as previous positions, in terms of your coworkers?

A Yes. Nothing from my day-to-day work changed.

Q Got it. And the -- the work that you had 10:27:36 just described to me, that you had done in your role as senior scientist, that work was the same as senior scientist, inaugural member?

A Correct.

Q Okay. And you were there until May 2018; 10:27:48

right?
A Yes.
Q And then finally, I think we're getting to where you are presently, which is the director of the Toronto Sexuality Centre; correct? 10:28:01
A Yes.
Q And so you are currently the director of the Toronto Sexuality Centre, but you're also conducting your own private practice; is that right?
A That is my private practice. 10:28:14
Q Oh, that is your private practice. Okay.
And so can you tell me about your private practice? Approximately how many patients do you have as a part of your private practice?
A Roughly 50, currently. 10:28:28
Q So you have about 50 patients. Does this fluctuate a lot, or is it typically around 50?
A I do my best to keep the number pretty constant.
Q Okay. And why is that? 10:28:47
A Oh, for the -- for the workload.
Q Got it. And so you've been in your private practice for about five years now; is that right?
A Yes.
Q When you first started your private practice, 10:29:01

approximately how many patients did you have?
A I want to say zero, and then I worked it up from there.
Q And how are patients typically finding you or coming to you for -- for your treatment? 10:29:20
A Generally from routine advertising. Perhaps a quarter of them are referred specifically from other clinicians who feel that they're not qualified to deal with, whatever sexual issues, will send their client to me. 10:29:38
Q You said "routine advertising." What does routine advertising for your practice look like?
A An ad in Psychology Today and websites.
Q Any social media?
A No. 10:29:53
Q And you said sometimes other clinicians refer patients to you because they are unable to meet the needs of what the patient is looking for; right?
A Correct.
Q And so what would you describe your specialty to be that these other clinicians don't possess? 10:30:05
A Human sexuality, which is left out of most mental health training programs altogether.
Q And I know we've spoken about this briefly before, but what all do you understand to fall under 10:30:24

human sexuality again?
A Sexual functioning, sexual attraction -- sexual functioning and sexual attraction patterns.
Q And so of your 50 patients, approximately -- you know, what's the average age of your 50 patients? 10:30:40
A Average? 30 to 35.
Q How old is your youngest patient, without disclosing any HIPAA violative information?
A Youngest would be, I think, early 20s. 10:30:57
Q Early 20s. And how about the oldest?
A Oldest would be late 60s.
Q So as your role as director, is it -- am I correct that it's solely just your private practice, not your research? There's no -- no more research component of this position? 10:31:18
A Not paid.
Q So at the Toronto Sexuality Centre, you're praid -- you're paid for the work that you do in conjunction with your private practice; right? 10:31:36
A Correct.
Q And any other research you do, there's no payment from this entity for that research; right?
A Correct.
Q Okay. So in any of these positions that 10:31:47

we've spoken about, have you provided care directly to transgender people?

A I'm sorry, would you ask that again?

Q Sure. So in any of these positions, have you provided care to transgender people? 10:32:03

MR. BARHAM: Objection; form.

THE WITNESS: Yes.

BY COUNSEL SWAMINATHAN:

Q Which positions have you provided care to transgender people? 10:32:15

A Right now, asking as to the Toronto Sexuality Centre?

Q Any others?

A I -- I don't have any other clinical positions. I'm -- again, I'm checking your 10:32:28 question.

When you asked me about my experiences with trans people, you mean the -- my clinical experiences within the Toronto Sexuality Centre?

Q Exactly. And I'm just trying to ensure that 10:32:43 I haven't missed any other practices that, you know, you may have had with respect to, you know, providing direct care to -- to transgender people.

So I understand your answer to be the Toronto Sexuality Centre; is that correct? 10:32:57

A Yes, I -- I -- that includes trans people and people with transitions.

Q Okay. And, again, none of this care was provided to transgender prepubertal kids; right?

A Correct. 10:33:15

Q And none of this care was provided to transgender adolescents; right?

A Some would be adolescents. I -- I see clients at ages 16 and up.

Q 16 and up. 10:33:32

And you said your youngest client at the moment is in their early 20s, but you have seen clients who have been under the age of 18; is that right?

A Yes. 10:33:45

Q How many transgender people under the age of 18 have you provided care to?

A Six to eight.

Q Okay.

A While they were in that age. 10:33:58

Q Got it. And what about under the age 16, have you ever provided care to any transgender adolescent or prepubertal kid under the age of 16?

A No.

Q Okay. Did any of the care that you provided 10:34:11

to transgender and gender-dysphoric people involve prescribing puberty-delaying treatment?

A No. I'm not licensed for providing medical care.

Q And so you're not licensed to provide -- or, sorry, prescribe hormone therapy; right? 10:34:31

A That is correct.

Q Okay. So your care primarily involved counseling; right?

A Yes. 10:34:44

Q So with respect to any employment that you've held, have you ever been subject to discipline by your employer?

A No.

Q No? And you've spent a significant portion of your career at CAMH; right? 10:34:55

A Yes.

Q Okay. How have you gotten along with your colleagues over the span of -- it looks like over 20 -- 20 years? 22 years? How have you gotten along with your colleagues there? 10:35:15

A In general, very well.

Q And apologies, just one -- one clarification.

So you said that you're not licensed to prescribe puberty-delaying treatment or cross-sex 10:35:29

hormones; right?
A Correct.
Q Are you qualified to refer patients to providers who are licensed to provide that care?
A I'm not -- the question doesn't quite make sense to me. 10:35:49
Q Great. I'm -- I'm happy to rephrase.
Have you ever provided a referral for one of your patients to obtain puberty-delaying treatment or cross-sex hormones from, let's say, an endocrinologist? 10:36:03
A It's tough to say. Again, the Canadian medical system doesn't work quite the same way as the American way does. A letter from me would generally be sufficient for a medical provider who is looking for a licensed mental healthcare provider to say that a person is mentally healthy and ready to engage in a medical treatment, but we don't send the referral -- but -- but in the U.S., I understand there are certain legal ramifications how that referral happens, which isn't necessarily relevant to where I am. 10:36:27 10:36:53
Q I see. So you would provide a letter to another mental health provider who works with a patient, who would then be able to provide a 10:37:05

referral to the medical doctor to prescribe these treatments; right?

A No. I would be that other mental health provider.

Q So you would receive a letter from another practitioner and then that -- you would be the decision-maker as to whether the person is ready for a referral to a medical doctor to receive these treatments; is that correct? 10:37:18

A No. Usually, I would be the initiator. I mean, a -- a -- any given patient might come to me through another provider, but that doesn't require anything -- anything formal or anything in writing. 10:37:35

If the request or the -- if what is appropriate to the case is that the person does go on for medical treatment, then I would write a letter indicating that patient's preparedness for that medical treatment. 10:37:52

Q I see. And so how often have you written such a letter? How -- how many times, to your approximate recollection? 10:38:03

A Two, three dozen.

Q Two, three dozen.

And do you typically write these letters for those who are above the age of 16? 10:38:17

A Yes.
Q Have you ever written a letter for a patient of yours who was under the age of 16 to receive puberty-delaying treatment or hormone therapy?
A No. 10:38:33
Q Has any patient under the age of 16 come to you with that request?
A I don't see patients under 16.
Q How about under 18? Has any patient between the ages of 16 and 18 come to you with a request 10:38:46
seeking puberty-delaying treatment or, sorry, at that point cross-sex hormones?
A I haven't had such a request, no.
Q Okay. Sorry, we were just speaking about your colleagues at CAMH, and I was asking you, you 10:39:00
know, how have you gotten along with your colleagues there, and you said fine; is that correct?
A Generally, quite well, yes.
Q Generally, quite well.
Did you ever have any disagreements with 10:39:11
other employees of CAMH?
A Yes.
Q What kinds of disagreements have you had?
MR. BARHAM: I'm going to object and advise not to disclose any confidential information. 10:39:31

THE WITNESS: Generally, these were, you know, minor administrative disagreements about how something should be done or -- or efficiency.

The largest disagreement I had was not related to gender -- to gender issues at all, but it ultimately was what motivated my leaving the hospital. 10:39:51

BY COUNSEL SWAMINATHAN:

Q It was not related to issues of gender dysphoria or related to transgender people? 10:40:04

A Correct.

Q And it caused you to leave the hospital.

And was that in 2018?

A Yes.

Q Okay. So you've never had any issue come up relating to the topic of transgender people; right? 10:40:18

A When you now say "never had any issue come up," we're -- we're still talking in which -- in which context?

Q Apologies. Let me -- let me clarify. 10:40:38

So you said that there was a disagreement in 2018 that caused you to leave CAMH; right?

A I wouldn't say that there was a disagreement in 2018. It took me several years to -- to get to -- to get to that point, but that certainly -- 10:40:54

but that was the formal date of when -- when I left CAMH.

Q I understand.

What was that disagreement?

A It had become very apparent to me that the psychiatric staff was misusing hospital time for their own private practices, and I was ultimately unable to change that from happening in a substantial way. I thought it was grossly unethical and no longer wanted any part of a clinic that would -- that would allow that. 10:41:05 10:41:24

Q And were these psychiatric staff individuals that you supervised?

A No.

Q No? And to your knowledge, if -- if you know, how were they misusing hospital time? 10:41:34

A They were seeing private patients and using hospital resources for those private patients.

Q And would those patients be coming to the hospital, or would these be virtual sessions? 10:41:51

A Coming to the hospital.

Q Yeah, I'm just trying to get a better understanding of whether, you know, these psychiatric staff were seeing these patients and the patients were not registered in the hospital 10:42:06

records.

Is -- is that what happened?

A The --

MR. BARHAM: I'm going to object and caution you about resealing confidential information. 10:42:16

COUNSEL SWAMINATHAN: Objection noted. Thank you.

THE WITNESS: That's not how the system exactly was set up. Because of the nature of the laboratory, it was permitted to see nonhospital 10:42:35 patients, but hour by hour and patient by patient, they were encroaching on hours that should have been reserved for hospital patients, but hospital patients were getting displaced for the private patients. 10:42:49

Q And how, exactly, did this -- this misuse of time lead you to your decision to leave the hospital entirely?

A It became apparent -- it became apparent that some money resources had been bled away from the 10:43:12 clinic that there were no -- at one time, the -- the regular patients who were regularly getting referred ceased being referred. The referral sources realized that the delays got so long, they didn't bother referring anybody anymore, and if there are 10:43:27

no people, then -- if there are no referrals, there's no clinic. If there's no clinic, there's no research.

I was able to correct it for a time, but I was unable to get the hospital to change its policy to make it permanent. 10:43:40

Q I see. And so your disagreement with how the hospital handled that situation is what caused you to leave; right?

A Yes. 10:43:53

Q And prior to that, I think you testified that you've had no other disagreements during your time at CAMH with respect to topics concerning transgender people; right?

MR. TRYON: Objection; form. 10:44:12

THE WITNESS: Correct.

BY COUNSEL SWAMINATHAN:

Q You've never disagreed with any employee as to what proper care for transgender individuals should be? 10:44:19

MR. TRYON: Objection.

THE WITNESS: Not that I recall, no.

BY COUNSEL SWAMINATHAN:

Q Okay. So let's move to page 3 of your CV, if you still have that up in front of you. 10:44:33

A Yes.
Q Great. Can you take a moment to review?
I -- I believe pages 3 through 7 list publications that you have authored and coauthored; right? 10:44:57
A Yes.
Q Okay. Approximately how long have you been authoring publications?
A You said three pages? I'm counting five.
Q 3 through 7, sorry. 3, 4, 5, 6 -- 10:45:11
A Oh, pages 3 through 7?
Q Yes, yes.
A I understand.
Yes, I'm sorry, what was your question again?
Q Approximately how long have you been authoring publications? 10:45:23
A Oh, almost 30 years.
Q Almost 30 years.
And what topics do you predominantly write about? 10:45:33
A Human sexuality and atypical sexualities.
Q And within human sexuality and atypical sexuality, what subjects do you primarily focus on?
A Sexual orientation, paraphilias and gender identity. 10:45:51

Q And you have 64 articles listed here under "Publications"; right?
A That's -- yes.
Q When did you start writing and researching about paraphilias? 10:46:06
A Specifically about the paraphilias, soon after I arrived at CAMH.
Q Okay. So that would be around 1998, '99 timeframe?
A Roughly, yes. 10:46:21
Q Okay. And how many of these publications focus on transgender and gender-dysphoric people?
A I have listed them on my CV. I'd have to count. It's roughly a half dozen.
Q Why don't we go through these pages together. 10:46:39
So your first publication titled "Transgender and gender diverse children and adolescents: Fact-checking of AAP policy," authored by J. Cantor in 2020; is that correct?
A Yes. 10:46:58
Q And you would say that publication pertains to issues of transgender and gender dysphoria in people; right?
A Yes.
Q Great. I'm looking down the list now. 10:47:08

Is there anything else on page 3, any other publication listed on page 3 that deals specifically with transgender individuals or individuals diagnosed with gender dysphoria?

A No. 10:47:29

Q Okay. Let's go to page 4. Can we go through this same exercise?

Is this there any publication on this page that relates specifically to transgender individuals or individuals with gender dysphoria? 10:47:52

A Only indirectly, number 26, Fazio and Cantor.

Q What do you mean by "indirectly"?

A One of the ways -- left-handedness is more common among people who are trans or gay, for that matter, than -- than not. 10:48:18

Q And that's the only -- that's the only way that this article is connected to issues concerning people who are transgender and gender dysphoric; right?

A Yes. 10:48:33

Q Okay. Great. Let's go to page 5 of your list of publications.

A Yes.

Q Can we go through that same exercise?

I can see that number 30 concerns paraphilia, 10:48:43

gender dysphoria and hypersexuality, so I assume that article relates to transgender or gender-dysphoric people in some regard; right?

A Yes.

Q Is there any other article on that page that relates to what we're speaking about? 10:48:57

A That particular one, that's a -- the relevant chapter in the Oxford Textbook of Psychopathology. I just finished writing the new version of that, but it's not yet in my CV. The book hasn't come out yet. 10:49:17

Q Okay. Great. So just number 30; right?

And then can we --

A Hang on. I'm going through the rest of the list. 10:49:32

Q Oh, apologies.

A Again, indirectly, number 37, Cantor, 2012, "Is homosexuality a paraphilia?" Again, gender identity factors indirectly, in answering that question. 10:49:48

Q So, again, your testimony is that 37 indirectly focuses on transgender people and gender identity disorders as related to homosexuality as a paraphilia; is that right?

A The evidence -- exactly as the -- the title 10:50:03

states, reviewing the evidence and the arguments that have been posed for each side.

Q So how does this article specifically address issues of transgender people and gender dysphoria individuals? 10:50:21

A There is a specific paraphilia called "autogynephilia" which is strongly related to the motivator -- which is strongly -- which is one of the strongest motivatives for adults who want to transition, specifically from male to female. 10:50:36

Q So --

A Whether they --

Q Apologies. Continue.

A Whether they consider themselves heterosexual or homosexual is often rooted at what their stage of transition is. So it makes the question of whether -- sexual orientations of paraphilia a little more complicated. 10:50:45

Q Got it. And as you just testified, autogynephilia applies to adults; right? 10:51:00

A That's not exactly it, no. Usually in a clinic, autogynephilia is the primary motivator behind most -- most people who start becoming gender dysphoric in adulthood, but that doesn't mean it's limited to adulthood. 10:51:21

Q Got it. Are there any other articles on this page that relate to transgender --

A Yes.

Q -- or gender dysphoria?

A Yes. Number 40, which is the then prior version of that chapter for the Oxford Textbook of Psychopathology, but the chapter was retitled, so the phrase "gender identity" doesn't appear in the title in that -- in that title. Or it doesn't appear in the title in that version. 10:51:33 10:51:50

Q So this chapter titled "Sexual disorders" encompasses information about transgender identities and gender dysphoria; is that right?

A Yes.

Q Okay. Anything else on this page? 10:51:59

A No.

Q Okay. We're almost done with this exercise.

Page 6. Are there any articles on page 6 of your CV that focus --

A Yes. Number 53, Zucker, et al. 10:52:26

Q Okay. "The Recalled Childhood Gender Identity/Gender Role Questionnaire: Psychometric properties."

So this publication focuses on issues pertaining to transgender and gender-dysphoric 10:52:42

individuals; right?
A Children specifically, yes.
Q Children specifically. Okay.
Anything else on this page?
A No. 10:52:51
Q And the last page, page 7, are there any articles on this page that pertain to transgender individuals or gender-dysphoric individuals?
A No.
Q Great. So you've identified six articles for me, and, if you don't mind, I'd like to go through those six articles in a little bit more depth. So if you could turn back to page 3. 10:53:15
Would it be fair to describe your work that you've done in connection with these articles as research? 10:53:40
A Broadly speaking, in different contexts, people use the word "research" different ways.
Q I don't want to misrepresent your work, so how -- how would you describe what goes into the publication of these articles? Would you call it research or study? 10:53:52
Is "study" a more appropriate word?
A Again, these mean different things in science, and we would use different words in 10:54:11

different contexts.

Usually when I use the word "research," we're talking about actually collecting original data, analyzing patterns and then reporting the results of those analyses. 10:54:24

Q Okay.

A In science, of course, when there are many such -- many such observations reported, we then go through and read -- read those, accumulate those and find patterns in those sets of observations. 10:54:34

So some people would call that research; others, not. There also exists people who just refer -- review all of the research and summarize it all into one. That also would legitimately be called research. 10:54:51

Q Okay. So why don't we go through these and you can correct me if I'm mischaracterizing anything.

But article 1, to me, seems like a review; is that correct? 10:55:02

A That would be fair to say. In -- as I say, some people would call that research.

Q Okay. So why did you author this article?

A When the AAP first published its paper, it very obviously, to me, contained glaring error after 10:55:24

glaring error. It repeatedly said whatever original studies made such a claim. I was well aware of that original study and knew that it made no such claim.

At that time, especially, there were relatively few people who knew any of the research on gender identity, so I simply conducted a fact-check of all the claims that were made by the AAP. 10:55:43

Q So this article doesn't include any original research of yours; right? 10:55:54

A I did not collect data for it.

Q Okay. Who requested that you write this article?

A No one.

Q No one? 10:56:06

So it was your decision to fact-check the AAP policy; right?

A Yes.

Q It wasn't at the request of any other entity?

A Correct. 10:56:16

Q Okay. And let's go on to number 26, which I believe is the next publication, on page 4.

A Yes.

Q So this is an article that you authored along with Fazio; is that correct? 10:56:38

A Yes.
Q Who is Fazio?
A She was a graduate student who was studying under me for her internship and then --
Q Got it. 10:56:47
A -- and then post-doc.
MR. TRYON: Pardon me, Counsel, which number are we on?
COUNSEL SWAMINATHAN: Apologies. We are on page 4 of Dr. Cantor's CV and Article No. 26. 10:56:54
MR. TRYON: Thank you.
COUNSEL SWAMINATHAN: No worries.
BY COUNSEL SWAMINATHAN:
Q Okay. And so this is the article that you mentioned tangentially related to transgender people and gender identity disorders because of the left-handed association; is that correct? 10:57:05
A Yes.
Q Okay. And did you author this article out of your own volition, or were you requested by a certain entity to -- to research this issue? 10:57:26
A Neither. It was Fazio's initially.
Q Okay. And so you were supervising Fazio's research; is that correct?
A This portion of it, yes. 10:57:41

Q Okay. Great.

And can we go to number 30 now, which is at the top of page 5 of your CV?

A Yes.

Q You mention that there is a new version of this Oxford textbook that is in the works right now; right? 10:57:58

A Yes.

Q And in this current version, you wrote this chapter with Sutton, K. S.; is that right? 10:58:14

A Yes.

Q Who is Sutton?

A He was a postdoctoral fellow of mine at the time.

Q I see. And you coauthored this article in 2014; is that right? 10:58:27

A That's the year it came out. I don't remember the date when we submitted the manuscript.

Q Okay. A quick clarifying question.

Is there a reason that your name is first in this article and Sutton's is second, but in the prior article we were looking at, Fazio's name was first and your name was second? 10:58:42

A Just reflecting proportion of -- of effort into it. As I say, I -- with Fazio, I was 10:59:00

participating only in a particular portion. And with Sutton, I was the primary author and Sutton added in other details.

Q Got it. Okay.

And so, can you remind me again, how exactly does this article relate to transgender people or people with gender dysphoria? 10:59:12

A A section of that chapter is specifically about transgenderism.

Q What is that chapter focused on? 10:59:24

A I'm sorry, I'm no longer sure that we're talking about the same chapter. I'm talking about the chapter with Sutton.

Q What -- what -- you mentioned that a portion of the chapter focuses on transgender identities; right? 10:59:41

A Yes.

Q I'm asking you to describe that portion a little bit more for me.

A Oh. In that portion, we reviewed what, until then, was known about gender -- gender identity, gender dysphoria and transsexualism in children and adults. 10:59:52

Q And this was independent research that you and Sutton conducted? 11:00:04

A It was a review, as I said, of what was already known about those topics at that time.

Q Got it. And were there any findings that you presented that were separate from what data was already existing in this review that you mentioned? 11:00:22
Was there any new finding that came out of this article?

A Not an empirical finding. When we saw patterns in the research or comparisons between different kinds of atypical sexualities and so on, 11:00:39
we would -- we would add those, but the focus of the chapter and the purpose of the textbook was to convey to readers what was already established in the science.

Q And -- and I assume this chapter was reviewed 11:00:51
by others; right?

A Yes. That particular book, the Oxford Textbook of Psychopathology, is one of the best known such texts in the world.

Q Assume that it's a peer-reviewed text; right? 11:01:06

A I would hesitate to call it peer reviewed. It's not peer reviewed in the way that journal articles are peer reviewed. In journal articles, it's initiated by the author, sent into the journal and the journal can either publish or not publish 11:01:25

it.

Q Uh-huh.

A Book chapters are by invitation. The book editors then select topic experts and -- and invite them to submit a chapter for the book. 11:01:38

Q Got it.

A That chapter gets peer reviewed in the way that it's sent to other topic experts for -- for feedback, but it's not reviewed in the same should we consider this at all, I don't know anything about this topic and then need an expert to tell me, which would happen in the journal peer review system. 11:01:49

Q Understood. So you were invited to author this chapter by Blaney and Millon; is that correct?

A Correct. 11:02:02

Q Okay. And when did they extend this invitation to you? Because previously when I said that, you know, it was published in 2014, you mentioned that the work that has been put into it was ongoing prior to 2014. 11:02:17

So when -- when did they approach you about authoring this chapter?

A I don't recall exactly. It would have been about a year and a half to two years ahead of time.

Q Okay. Great. 11:02:29

And then you mentioned number 37, article 37, is related to transgender identities and gender dysphoria as related to autogynephilia; is that correct?

A The -- yes, the nexus between the topics is autogynephilia. In order to answer the questions that I had set for myself requires that people know each chunks of that literature. 11:02:42

Q Got it. Okay.

And article 40, you also mention that the title is "Sexual disorders," but that's only because it's a previous version of the title that did not include issues of gender identity; is that correct? 11:03:03

A Yes.

Q And the textbook actually includes information pertinent to transgender individuals and gender identity disorders; is that right? 11:03:17

A Correct. In the years after that, it became -- it became more and more uncontested whether gender identity should automatically be called a -- a disorder at all. So by parsing out the title, we removed the word "disorder" altogether. 11:03:36

Q I see. And this -- this came out in 2009; is that right? 11:03:52

A Correct.
Q And then the last one you mentioned was on page 6 of 32 of your CV, and it's Article No. 53, the Zucker article. And you mentioned that this article focuses on children with gender identity disorders; is that right? 11:04:05
A Yes.
Q Can you tell me more about this -- and however you call it, a study or research that went into this article? 11:04:29
A I provided primarily statistical input into the article. The topic on it was how to find the most objective and reliable way to ask about events in childhood and how cross-gender they were.
Q So what do you mean by "statistical input"? 11:04:49
A Because I have a substantial background in statistics, I'm often asked to -- to add to the statistical analyses that -- or to double-check the statistical analyses that any researcher is doing.
Q So is this Zucker article a compilation of original research? 11:05:06
A It is an original piece of research, yes.
Q It is an original piece of research.
And your contribution to the article was to ensure that the statistical analysis was sound; is 11:05:19

that correct?
A I don't think it's fair to limit my contribution to that, but that was my predominant role.
Q Fair to say it was your predominant contribution; right? 11:05:31
A Yes.
COUNSEL SWAMINATHAN: I just want to check in because I think it's been about an hour. So I was wondering if you need a break. Or, Counsel Travis, if -- if you want to take another short five-minute break. 11:05:40
THE WITNESS: I'm okay.
COUNSEL SWAMINATHAN: You're okay --
MR. BARHAM: I'm fine with continuing. 11:05:47
COUNSEL SWAMINATHAN: Okay. Sounds good.
BY COUNSEL SWAMINATHAN:
Q So of these six publications that we just talked about, none of these publications focus on transgender people in athletics; right? 11:06:02
A Correct.
Q Do any of these publications relate to the issues in this case?
MR. TRYON: Objection.
THE WITNESS: Do they relate? I -- I'm 11:06:22

not -- I'm not sure I know how to answer that question.

BY COUNSEL SWAMINATHAN:

Q Sure. Let me ask a better question.

What is your understanding of what this case is about? 11:06:33

A Well, there's what the case is about and there's what I've been asked to contribute --

Q Sure. My question is, what is your understanding of what this case is about? 11:06:43

A Is whether it's fair and appropriate for biological males to participate in -- on biological female teams.

Q And do any of these publications inform your opinion on the issues that you just identified? 11:07:03

A I --

MR. BARHAM: Objection; form.

THE WITNESS: I would hesitate to say "inform" because several of my publications in turn reflect what's in the rest of the empirical literature, and it's the entire empirical literature that informs my opinion. It can't really be separated. But none -- none of my opinion about this case developed from my publications. Rather, my publications and my opinion both come from the 11:07:21 11:07:40

sum of the scientific literature.

BY COUNSEL SWAMINATHAN:

Q I appreciate that explanation. Thank you.

Let's go on to the next section of your CV.

So on, let's see, page 8, you have a list of letters and commentaries that you have authored and coauthored; right? 11:07:55

A Yes.

Q Approximately how long have you been offering letters and commentaries? 11:08:18

A Roughly 20 years.

Q And what topics do you predominantly comment on?

A Atypical sexuality in humans.

Q When did you start commenting on atypical sexualities? 11:08:32

A The first publication on it was in 2000.

Q And is that the -- Publication No. 14 that was listed -- that's listed here on page 8?

A Yes, it is. 11:08:56

Q And do any of these publications focus on transgender people or people with gender dysphoria?

A Yes.

Q Which ones?

A Numbers 6, 9, 10, 11. And I don't recall if 11:09:11

number 12 did, but I think not.

Q Okay. So we're working with number 6, 9, 10 and 11, right, under "Letters and Commentaries"?

A Yes.

Q And Letter No. -- or Letter or Commentary No. 6, this is a comment that you wrote in response to Italiano's 2012 comment on an article that you had written in 2011; is that right? 11:09:59

A Yes.

Q Does this comment have anything to do with transgender children and adolescents playing sports? 11:10:20

A No.

Q Let's turn to number 9, which is -- is this a letter, or is this commentary?

A A letter. 11:10:44

Q A letter.

A The difference -- there really -- it's a general standard whether they say "commentary" or "letter." There's no rigorous or systematic difference between the terms. 11:10:54

Q Got it. Thank you.

And so this was in 2011, entitled "New MRI studies support the Blanchard typology of male-to-female transsexualism."

Did I read that accurately? 11:11:03

A I'm sorry, say that again.
Q The -- it's titled "New MRI studies support the Blanchard typology of male-to-female transsexualism."
Did I read that accurately? 11:11:16
A Yes.
Q Okay. And did this letter have anything to do with transgender children or adolescents playing sports?
A No. 11:11:34
Q No? Let's look at number 10. This is -- this is authored by Zucker, Bradley, Own-Anderson, Kibblewhite and yourself; is that correct?
A Yes.
Q And it's titled "Is gender identity disorder in adolescents coming out of the closet?"; correct? 11:11:51
A Yes.
Q Can you tell me a bit about this letter or commentary? Why was it written?
A So we were observing, in those days -- we're now going back almost 15 years -- seeing the beginnings of the great increase in the number of adolescents presenting to clinics expressing gender dysphoria. 11:12:14
Q Okay. And is this a piece of original 11:12:30

research, or is this a review of existing research?
A Original research.
Q Who funded this research?
A It wasn't funded in a direct way. It required no -- it required no funding. It wasn't the kind of a study that required hiring new people or equipment. 11:12:54
Q I see. So there was no grant application process or something similar associated with this publication; right? 11:13:07
A Correct.
Q How did the authors of this study, including yourself, come together to conduct this research?
A They were already colleagues at CAMH.
Q Got it. So these are all employees of CAMH? 11:13:25
A At that time, yes.
Q Were any of these authors students or -- sorry, fellows?
A I don't recall if Kibblewhite was. They may have been. 11:13:47
Q Okay. And you said that this study was not directly funded. Was it indirectly funded in any way?
A It would be reasonable to say that the hospital's salary support of the staff was an 11:14:00

indirect funding, but it wasn't related to any -- any one particular study at all.

Q Got it. And just to clarify, this is a study that you-all came together to carry out on -- on your own, not at the request of anyone? 11:14:17

A Correct.

Q Okay. And is this study related to transgender children or adolescents participating in athletics specifically?

A No. 11:14:30

Q Okay. And then you said, finally, number 11 under "Letters and Commentaries." It's a review, in 2003, of the book The Man Who Would Be Queen by J. Michael Bailey. Did I read that accurate?

A Yes. 11:14:52

Q What is The Man Who Would Be Queen?

A It was a book by J. Michael Bailey, published at the time, describing for the lay public gender identity and transsexualism in children -- well, in children and adults. 11:15:10

Q Did the book focus on children or adults?

A I don't think it's fair to say it focused on either. It spanned a lifetime.

Q Understood. I'm just trying to understand because it says "The Man Who Would Be Queen," 11:15:26

instead of "The Boy." So I was just wondering how old the protagonist of this book is, to your recollection.

A There wasn't a single protagonist. There were multiple protagonists. 11:15:38

Q What was the average age of the multiple protagonists in this book?

A Oh, I don't recall, and I'm not sure that that's meaningful. That is, in the book, Bailey was describing the phenomena of transsexuality and 11:16:00 gender dysphoria and then used individual cases and describes people in order to -- in order to help, you know, color the -- the issue for -- for the audience, but it wasn't -- it wasn't of a number of people by which one could calculate an average. He 11:16:20 described a couple of children, and he described a couple of adults, and he tried to -- did his best to describe people who were transitioning in each direction.

Q I understand. I'm -- sorry. I was just 11:16:30 trying to clarify whether this was book was similar to, you know, the clinical work that you do, where you speak to adults or people over the age of 16 and, you know, retroactively gain their childhood -- gain knowledge of their childhood experiences or if 11:16:47

this book, the individual cases that you mentioned, were actually children versus adults.

And you say it's a mix of both; right?

A It includes cases of both.

Q Yeah. Okay. That -- that's all I was wondering. Thank -- thank you. 11:17:01

And so why did you review this book?

A For the same reason I -- I -- for the same reason that I wrote the AAP study. The book was fascinating, well written, very informative, useful -- and useful to society, but also very controversial. So I thought it would be useful, as one of the few people qualified to -- to do so, to compare the book with -- with the actual research at the time. 11:17:19 11:17:37

Q Did anyone request you to write this review?

A No.

Q Did you speak to Michael Bailey while writing this review?

A I don't recall. I had already met him before I wrote the review. I don't recall contacting him at all while I was writing. 11:17:47

Q And so to your recollection and speaking about it more generally, this book has to do with the full age range of transgender identities, and, 11:18:20

in your testimony, it does not focus solely on adult transitioners; right?

A It's not limited -- it's not at all limited to adults.

Q It's not at all limited to adults, but more generally, it speaks to adults as opposed to children? 11:18:33

MR. TRYON: Objection; form.

THE WITNESS: I hesitate to say that it speaks to either one any more than the other. 11:18:45

BY COUNSEL SWAMINATHAN:

Q Okay. That's fair.

And then at the bottom of the page and then the next page, you have a list of your publications, specifically your editorials, and that is your CV page 8 and 9. 11:18:59

A Yes.

Q Okay. And so approximately how long have you been authoring editorials?

A About 20 years. 11:19:18

Q 20 years. And what topics do you predominantly write on in terms of your editorial publications?

A Primarily on the editorial process itself. I'm on the editorial board for the Archives of 11:19:32

Sexual Behavior, and I serve as editor in chief for the journal Sexual Abuse.

So it's routine for editors and editorial board members to comment on the structure and recurrences within the journal itself. 11:19:47

Q When did you start sitting on the board, the editor -- as -- as the editor in chief of the journal Sexual Abuse?

A It's on my CV. I don't recall the year.

Q Approximately how long do you remember sitting on the board for or sitting in that position? 11:20:03

A Roughly 15 to 20 years.

Q Okay. And so you have ten publications listed here under "Editorials"; is that right? 11:20:18

A Yes.

Q And from my view of the ten editorials, is it fair to say that you predominantly comment on sexual abuse?

A I wasn't -- no, I wasn't commenting on sexual abuse itself. I was commenting on the journal entitled Sexual Abuse. 11:20:35

Q Okay. So when you're commenting on the journal entitled Sexual Abuse, what is the nature of this commentary? 11:20:52

A Number of publications, people coming and leaving the editorial board, my plans for the journal for the future. We weren't talking about the topic within the journal. We were talking about the journal as the topic. 11:21:05

Q I see. Okay. So these are -- these are comments on kind of the -- the structure or the future of the journal itself, not specific substantive reviews of the articles contained within these journals; is that right? 11:21:21

A Yes.

Q Okay. And then on page 10 of your CV, you've listed your funding history; is that right?

A Yes.

Q And so these two pages list the funding that you've been the recipient of over the course of your career; right? 11:21:38

A Yes.

Q Is this a comprehensive list of the grants you've received? 11:21:54

A Yes.

Q And you were a co-investigator for four out of the seven times that you received funding for a study; right?

A Just checking. 11:22:08

Q No problem.
A Yes, that's correct.
Q And you were a principal investigator, then, for three out of the seven times you received funding for a study; correct? 11:22:26
A Yes.
Q Were any of these seven awards of funds related to the study or treatment of gender dysphoria for transgender people?
A Yes. 11:22:40
Q Can you point me to which ones, please?
A The first one, "Brain function and connectomics following sex hormone treatment in adolescents experience gender dysphoria."
Q Uh-huh. 11:22:54
A And Effects of hormone treatment on brain development: A magnetic resonance imaging of -- study of adolescents with gender dysphoria.
Q Great. Thank you.
I would love to talk about those two studies 11:23:19
a bit further. So if we could start with the first one, which I understand to believe was granted in July of 2018.
So I see that it says $650,000 and -- sorry, $650,250, and then it has a forward slash, 5 years. 11:23:36

So is that the amount of funds that were awarded over a period of five years?

A Yes, that's correct.

Q Not each year; right? It's a totality of the funds received over five years? 11:23:51

A Correct.

Q Okay. And when it says "July, 2018," does it mean that you -- like, the funds started coming in in July 2018 and continue on to, presumably, July 2023; is that correct? 11:24:07

A June 2023, but yes.

Q Okay. June 2023.

And so can you describe the study to me?

A The study itself is to take brain scans of kids throughout the process of -- throughout their process of transitions. 11:24:28

Q Okay. And how did you discover this opportunity?

A I had worked, at least indirectly, with some of these authors before. It's -- they're -- they -- they're running the study, but, of course, they needed somebody with a background in brain imaging, in statistics and in human sexuality, including gender identity. 11:24:41

Q So who are Doug VanderLaan and 11:24:58

Meng-Chuan Lai?

A They now are two sex researcher neuroscientists specializing in child gender identity.

Q They specialize in child gender identity disorders; is that right? 11:25:12

A Yes.

Q What about Megha Mallar Chakravarty, Nancy Lobaugh, M. Palmert and Skorska?

Apologies if I mispronounced any of those. 11:25:25

A No problem.

They're other statisticians and neuroscientists involved in the data collection for MRI research.

Q Are those folks also focused on child gender dysphoria identities? 11:25:38

A No.

Q No? Okay.

And who applied for the funding for this study? 11:25:56

A Dr. VanderLaan.

Q VanderLaan.

And are you aware of what papers were submitted in connection with that application?

A I don't understand the question. Papers 11:26:07

submitted for an application?

Q I assume that to apply for a grant, there's some sort of application process; is that correct?

A Yes.

Q Were you involved in that application process, or was that solely done by Doug VanderLaan? 11:26:19

A I was involved in relevant parts of it.

Q What was your involvement?

A To review, check and add to the sections on statistics, neuro- -- and neuroimaging research methods. 11:26:38

Q Got it. Okay.

And I assume the study is still ongoing; right?

A Yes, it is. 11:26:48

Q It is.

And you don't have any findings to report right now; right?

A No, not yet.

Q Okay. And just to check in -- or is this study at all related to the participation of transgender children and adolescents in athletics specifically? 11:26:59

A It's not a topic of the study.

Q Okay. And it looks like you said there was 11:27:17

another study where the principal investigator, Doug VanderLaan, and co-investigators, Bain, Cantor Chakravarty, Chavez, Lobaugh and Zucker, bas- -- or the date is September 2015. That's the other study that you mentioned is relevant to transgender and gender-dysphoric individuals; right? 11:27:39

A It's a grant, not a study.

Q Sorry, grant. Apologies.

Can you tell me about that grant?

A It was very similar to the first one. In fact -- well, the one we first discussed, even though it, chronologically, is first. The chronologically first one bled into or ran into or became the second one, which is continuing the first. 11:27:51 11:28:08

Q I see. So were there independent results that were obtained from -- from this research, or did that research continue on into the grant that we just spoke about?

A That research is continuing on into the current one. 11:28:24

Q Great. And so it looks like it's the same agency that awarded both grants; right?

A Correct.

Q And this time, they provided you $952,955, 11:28:37

again, over the course of five years, starting from September 2015; is that right?

MR. TRYON: Objection; form of the question.

THE WITNESS: Yes.

BY COUNSEL SWAMINATHAN: 11:29:01

Q So am I correct that your team of investigators applied for a second grant to continue the research that they were doing as a part of this initial awarding?

A Correct. 11:29:12

Q Is there a reason that they gave you less money the second time?

A Less was needed.

Q Less was needed?

A Yes. 11:29:20

Q Why was less needed the second time around?

A Changes in staff and then -- and student needs, just the size of the lab that needed to be -- needed to be supported.

Also, in the second stage of the study, there are now ongoing participants who require brain scanning at regular intervals, which is unlike the earlier part of the study where it was a much wider range of people getting scanned. 11:29:35

Q I see. And, again, did this first stage of 11:29:49

the study involve the participation of transgender children or adolescents in athletics?

A The -- the way you phrased your question is a little funny. The -- the topic of the study wasn't focused on it, but I would not be at all surprised if some of the participants in the study were in turn involved in athletics. 11:30:08

Q Do you anticipate reporting specifically on athletic performance of transgender athletes in these studies? 11:30:27

A I don't anticipate reporting on that, no.

Q No? And you don't know for sure that these study participants may or may not be athletes as well; right?

A Correct. 11:30:39

Q Okay.

COUNSEL SWAMINATHAN: Okay. How about we take a five-minute break.

MR. BARHAM: Sounds good.

COUNSEL SWAMINATHAN: Can we go off the record? 11:30:51

THE VIDEOGRAPHER: Yes. We are going off the record at 11:31 a.m., and this is the end of Media Unit No. 2.

(Recess.) 11:47:06

THE VIDEOGRAPHER: All right. We are back on the record at 11:47 a.m., and this is the beginning of Media Unit No. 3.

Go ahead, please.

BY COUNSEL SWAMINATHAN: 11:47:15

Q Okay. So, Dr. Cantor, can you please turn to page 16 of your CV.

A I'm there.

Q Awesome. So page 16 through 18, I understand, lists your paper presentations and 11:47:39 symposia; is that correct?

A Yes.

Q What topics do you predominantly present on?

A The same topics that -- that I research on, atypical human sexuality. 11:47:56

Q And when did you start presenting on atypical human sexuality?

A In the 1990s, I believe it was. Roughly 30 years.

Q And it looks like you have 38 presentations 11:48:09 listed here; right?

A Yes.

Q We're going to go through a similar exercise.

Would you please look at page 16 and tell me whether any of these paper presentations and 11:48:28

symposia focus on transgendered people or gender-dysphoric people.

A Yes. Number 1. And that's the only one on this page.

Q Great. And then can we do that same exercise for page 17 of 32, please, which are 14 through 25. 11:48:59

A Number 23 and number 25.

Q Great. And then the last page, on page 18, please.

A None on that page. 11:50:33

Q Great. So if we can turn back to page 16 and look at the first presentation that you have listed.

So I understand it's a presentation given by yourself in April 2020, and it's titled "I'd rather have a trans kid than a dead kid: Critical assessment of reported rates of suicidality in trans kids." 11:50:51

Did I read that correctly?

A Yes.

Q And this was presented at the annual meeting of the Society for the Sex Therapy and Research; right? 11:51:01

A Yes.

Q And I assume it was online due to COVID?

A That's correct. 11:51:12

Q Okay. Who were you asked to present at this annual meeting by?

MR. BARHAM: Objection; form.

MR. TRYON: Objection; vague.

THE WITNESS: I wasn't -- I wasn't asked. 11:51:28

BY COUNSEL SWAMINATHAN:

Q You weren't asked?

A Correct. I submitted a proposal to -- to present, and it was accepted.

Q When was it accepted? 11:51:33

A Oh, I don't remember the date. In general, they were four to six months ahead of the date of the conference itself.

Q Got it. And what did you have to submit in order to vie for a spot to present at this annual 11:51:47 meeting?

A A form and a, roughly, one-paragraph summary.

Q And to the best of your recollection, what did you say in that one-paragraph summary?

A Roughly the same material that's contained in 11:52:03 my report.

Q Can you give me a brief summary of what you mean by that?

A That very many people exaggerate the amount of suicide and suicidality that occur- -- that's 11:52:14

reported amongst trans populations.

Q Got it. And were you paid to give that presentation?

A No.

Q No? And you said this presentation focuses on transgender children and adolescents or some other population? 11:52:30

A Transgender children and adolescents.

Q Does this -- did the presentation you give at all focus on transgender children and adolescents participating in athletics? 11:52:45

A No.

Q No? Okay.

Then you told me that number 23 also focuses on transgender people and gender-dysphoric people; right? 11:52:58

It's a presentation from August 2003. And I take it where you're the only person listed in the front, you are the only presenter; is that right?

A Yes. 11:53:16

Q Okay. And so this presentation was titled "Sex reassignment on demand: The clinician's dilemma." And this paper was presented at the 111th annual meeting of the American Psychological Association in Toronto, Canada; is that correct? 11:53:34

A Yes.
Q So was this an American Psychological Association annual meeting in Canada?
A Yes.
Q Do they typically have their annual meetings in Canada? 11:53:49
A Oddly, more -- more frequently than you would think. A -- Toronto is a very popular city for -- for the APA.
Q Interesting. Okay. 11:54:00
And so you testified that in the previous presentation that we spoke about, you submitted a form requesting to present at that meeting.
Did you do the same for this annual meeting?
A I don't remember the exact process anymore, 11:54:15
but it was roughly the same.
Q So you requested your -- your participation in this meeting as opposed to someone reaching out to you, asking you to present at this meeting; right? 11:54:29
A Correct.
Q Okay. And what were you presenting on?
A I was presenting on my experiences, now having had the first several years of my experience working with people, in turn working with their 11:54:45

gender identities.

Q So you were presenting on your own experience; right?

A I was couching everything in my experience, but it was meant to be a tutorial to help other clinicians who were preparing to do the same thing. 11:55:03

Q Did you present any data at this annual meeting?

A No, I did not.

Q No? Did you present any original research of yours at this annual meeting? 11:55:15

A No, I did not.

Q Okay. And at this meeting, did any portion of your presentation focus on transgender children or adolescents? 11:55:32

A No.

Q Okay. 25, I believe you said, was the -- the last one that focuses on transgender identities and people with gender dysphoria; right?

A That sounds right, yes. 11:55:55

Q Okay. And so this was a presentation given in 2002, August 2002. And, again, you were a sole presenter here. And your presentation -- or your -- title of your paper that was presented at the 110th annual meeting of the American Psychological 11:56:18

Association, this time in Chicago, was titled "Gender role in autogynephilic transsexuals: The more things change..."; is that correct? Did I read that correctly?

A Yes. 11:56:38

Q Is there anything after that ellipses that was just left out because of lack of space, or is that --

A No. The ellipses were part of the title.

Q Part of the tile. Okay. 11:56:46

And did you submit a similar form to present at the 110th annual meeting of the -- are you okay if I call it the APA? Is that an acronym you're familiar with?

A I'm familiar with it. I'm fine in this 11:56:59 context. My single hesitation is that it's easy to confuse the American Psychological Association with the American Psychiatric Association since both get abbreviated APA.

Q I will go through the process of saying the 11:57:15 whole term.

So for the 110th annual meeting of the American Psychological Association, were you asked to present at this meeting, or did you submit a form, similar to the 111th? 11:57:30

A I submitted an application to present.
Q Okay. And I assume that application was accepted?
A Yes.
Q Were you paid to give that presentation? 11:57:43
A No.
Q No? And can you tell me a bit about the substance of that presentation?
A Yes. I was presenting to the audience the existence of autogynephilia, which most people, 11:58:04
especially then, were very unfamiliar with.
Q So you said most people were unfamiliar with it then.
Do you know of anyone else who was as familiar or similarly familiar with autogynephilia, 11:58:21
at the time, as you were?
A Yes.
Q Any prominent researches come to mind? Would you be able to -- to name a few?
A Certainly. Even the names that have been 11:58:37
mentioned already, J. Michael Bailey, Ray Blanchard and Maxine Petersen.
Q Any others come to mind?
A Again, it's a large literature. Many people have published on it. The largest other name that 11:58:51

quickly comes to mind is Anne Lawrence. Again, herself an openly trans woman.

Q And, again, you said that at the time, though, it wasn't a very well-known subject for most people at this conference? 11:59:09

A Correct.

Q And, again, this presentation did not focus on transgender children and adolescents with gender dysphoria; right?

A Correct. 11:59:26

Q And it didn't focus on transgender children and adolescents participating in athletics, did it?

A Correct, it did not.

Q Okay. And then if you could turn to page 25 of your CV. I think it's PDF page 93. 11:59:48

A Yes.

Q I understand that this is a list of teaching and training, and so I assume that to mean that you were the supervisor of these students or fellows listed on this page; right? 12:00:14

A Correct.

Q Is this a comprehensive list, in addition to the back, which says -- on page 26, which continues the list at CAMH clinical supervision, doctoral- and masters-level practice, do these two pages cover 12:00:29

your teaching and training experience?

A Yes.

Q Okay. So did you ever provide educational training to the individuals that you supervised related to transgender people? 12:00:43

A One second. I'm just running through them in my head.

Q No problem.

A Some of the students had some trans clients or a gender dysphoria-related question over the 12:01:21 course of a specific case, but none -- and some of my students were co-supervised by other supervisors who took the lead role, specifically in their gender -- in cases that they did have with gender dysphoria, but I myself didn't do the primary 12:01:41 supervision of a case specifically about gender dysphoria.

Q Got it. So you did not specifically take the lead role in supervising them on issues of gender dysphoria; right? 12:01:56

A Correct.

Q Okay. Did your supervision of these students ever involve providing care to transgender adults?

A Yes.

Q Can you tell me about that? 12:02:17

A Again, some of the -- although some of the clients weren't in to talk about trans issues themselves, some of them happened to have been trans. So it was related, but not a primary focus of the treatment. 12:02:33

Q Got it. So it was not a primary focus of the treatment, but their identities might have been relevant to transgender issues and gender dysphoria; is that correct?

A Yes, that's correct. 12:02:44

Q Okay. Did your supervision ever involve research around puberty-delaying treatment prescribed to transgender children?

A No.

Q What about transgender adolescents? 12:02:59

A No.

Q Did your supervision ever involve research around prescribing hormones to transgender adults?

A No.

Q Did your supervision ever involve research 12:03:14 and -- sorry, strike that.

Did your supervision ever involve prescribing hormones to transgender adults?

A No.

Q Okay. We're finally through your resumé, 12:03:33

which may provide some sense of relief, and I want to talk more about your involvement in this case.

So how did you first learn about this case?

A I was contacted by the lawyers, who informed me. 12:03:58

Q Who were those lawyers?

A The ADF team. I don't -- oh, no, no, no. I'm sorry. No, I was contacted by the attorney general's office in West Virginia, who -- who told me about the case and asked if I would be willing to 12:04:19 participate.

Q And when did that contact occur?

A I don't recall exactly. Roughly six months ago.

Q Okay. And had you worked with anyone from 12:04:31 the AG office of West Virginia before?

A Before this --

MR. BARHAM: Objection; form.

BY COUNSEL SWAMINATHAN:

Q I'm sorry, before -- 12:04:47

A No, I hadn't.

Q Had you spoken to anyone at the AG's office of West Virginia before this case?

A No.

Q Okay. And why did you agree to serve as an 12:04:55

expert in this case?

MR. TRYON: Objection to the extent that it calls for any attorney-client information.

You can answer to the extent you do not reveal any communications with your attorneys. 12:05:11

COUNSEL SWAMINATHAN: Objection noted.

Thank you, Counsel.

THE WITNESS: I felt interested and qualified.

BY COUNSEL SWAMINATHAN: 12:05:21

Q Okay. And, again, you said that you were first reached out to by the AG's office of West Virginia.

When did you hear from ADF, again?

MR. BARHAM: Objection. To the extent that it calls for any communication between the witness and legal staff, I'm going to instruct him not to answer so as to preserve the attorney-client privilege. 12:05:32

COUNSEL SWAMINATHAN: Sure. I'm -- I'm not asking the witness to disclose any attorney-client communications. I'm simply asking him when he was first contacted by any member of the Alliance Defending Freedom team. 12:05:50

MR. BARHAM: You can answer. 12:06:07

THE WITNESS: A few months after I was contacted by the West Virginia AG's office.

BY COUNSEL SWAMINATHAN:

Q So that would put you at about three months ago, right, since you said it was about six months ago that you were contacted by the West Virginia AG's office? 12:06:14

A That's roughly correct.

Q Roughly correct. Okay.

And who reached out to you? 12:06:31

A Oh, I don't remember who from the team. I believe it was Roger Brooks.

Q Okay. And, again, I am not seeking any communications you had with counsel, but I just wanted to know the timing of that. 12:06:43

And so you said you agreed to serve as an expert in the case, as you were interested and qualified; correct?

A Yes.

Q What is your understanding of why you were qualified to serve as an expert in this case? 12:06:56

A Because I have a very substantial background in the relevant subject matter and science.

Q And can you describe your interest more, in this case? 12:07:15

A My interest is indeed in the science and in any opportunity that I have to provide that science so it can be used for public policy.

Q Got it. Okay.

And so you said the AG's office reached out to you about six months ago, but if you remember, the document that we reviewed, which is marked Exhibit 44, which is the declaration that you submitted in conjunction with the preliminary injunction motion, that motion was dated -- or sorry, that declaration was dated June 22nd, 2021; right? 12:07:31 12:07:49

A Yes, that's the date.

Q So if the AG's office of West Virginia contacted you about six months ago, which is about October, who contacted you in connection with drafting this declaration in June of 2021? 12:08:08

A Again, I believe the person I was contacted by was Roger Brooks.

Q So during the period of June 2021, you had only spoken to Roger Brooks, not anyone at the AG's office of West Virginia; right? 12:08:46

MR. TRYON: Objection.

THE WITNESS: I think --

MR. BARHAM: Object -- objection as to form. 12:09:08

THE WITNESS: Unless I misunderstood your question, the original question was contacted for this case. I had received contact from the ADF team regarding prior cases. And the other exhibit is from a deposition I gave in a prior case that was then reused for this case. 12:09:25

So the date of the prior document I prepared is dated for -- from the prior case rather than when I was contacted for this case.

COUNSEL SWAMINATHAN: Court reporter, can you please read back my original question? 12:09:46

THE REPORTER: Yes. So the last one was "Q So during the period of June 2021..."

Is that the question you want read back?

COUNSEL SWAMINATHAN: Actually, I think it's either the question before that -- it's the one pertaining to when he was first contacted about this case. 12:08:48

(Record read.)

BY COUNSEL SWAMINATHAN: 12:10:28

Q And, Dr. Cantor, you testified that, you know, this was an expert report in connection with another case, but I presume someone contacted you about the declaration that you submitted on June 22nd, 2021, in this case, which has your 12:10:36

signature on the second page of the PDF; right?

A It has my signature, yes.

The AG in West Virginia already had a copy of my prior report and asked me if it would be okay for them to use that, to which I agreed. 12:10:55

Q Yeah. So who contacted you and asked you whether it was agreeable for them to use this prior expert report?

A The AG's office.

Q And when did that contact happen? 12:11:09

A That's what was about six months ago.

Q How could that possibly be about six months ago if it was executed with your signature on June 22nd, 2021?

A Oh, now I'm seeing it -- okay. Now I got it. 12:11:21

So it would have been older than six months ago. As I said, it was really only -- only rough, my estimation of the time.

Q Got it. And so -- I appreciate that.

And so this report was not tailored to this 12:11:42 case at all?

A The prior case? The --

Q I apologize. I can be more clear.

So this report that was attached to the declaration of the June 22nd, 2021, executed 12:11:59

document was not changed at all when used in this case; am I right?

A The submission to -- to the prior case wasn't changed at all when it was submitted for use in this case, and then I updated it for -- to submit a report specific to this case. 12:12:21

Q Right. I'm just trying to understand that this expert report that was attached to the declaration on June 22nd, 2021, was not changed at all from its prior use in the Allan Josephson case; is that right? 12:12:38

A Correct.

Q Okay. Thank you.

And so you testified earlier that your main area of expertise is studying atypical sexual patterns -- or atypical sexualities and paraphilias; right? 12:12:53

A Yes.

Q What is your understanding of a paraphilia?

A Oh, goodness. The term "paraphilia" is used different ways by different people in different contexts. Most broadly it refers to the highly atypical sexual interest that dominate a person's life and interact with or prevent them from having a -- an otherwise typical sexual life. 12:13:10 12:13:34

Q So do you view being transgender as a paraphilia?
A No.
Q No. Okay.
And how much time do you spend researching paraphilias? 12:13:53
A Oh, currently?
Q Currently, yes.
A About half my time.
Q Okay. And you said that you also focus on atypical sexualities. And would that include hypersexuality? Is that an atypical sexuality? 12:14:15
A Yes.
Q What is hypersexuality?
A Generally, these are people who are trying to reduce their sexual behaviors in one way or another. 12:14:31
There is no formal definition.
Q And how much time do you spend researching hypersexuality?
A These days, roughly 10 percent. 12:14:47
Q Okay. And I think you mentioned that you also spend time researching sex addiction; is that correct?
A Yes.
Q What is sex addiction? 12:15:03

A "Sex addiction" is a popular term. It's essentially a synonym for hypersexuality.

Q Oh, okay. So would you say that you spend about 10 percent of your time, in that same 10 percent that we spoke about for hypersexuality, researching sex addiction? 12:15:21

A Yes.

Q Okay. And I understand that you also research pedophilia; correct?

A Yes. 12:15:31

Q What do you understand pedophilia to be?

A The sexual attraction to children. The formal diagnosis is more rigid.

Q Apologies, I -- the formal diagnosis is what?

A More rigid. 12:15:50

Q More rigid.

What -- what is the formal diagnosis?

A The formal diagnosis of pedophilic disorder is somebody who's sexually attracted to prepubescent children more than they are attracted to adults. 12:16:02

Q Thank you.

And so how much time do you spend researching pedophilic disorders?

A Currently, roughly 10 to 20 percent.

Q Okay. And so we were speaking earlier about 12:16:21

autogynephilia, and I just want to get a clear understanding.

So is autogynephilia a paraphilia?

A Yes, it is.

Q Why is it a paraphilia? 12:16:33

A It's a highly atypical sexual interest pattern that can interfere or interact with a person's usual sexual life.

Q Okay. But being transgender is not a paraphilia; right? 12:16:51

MR. BARHAM: Objection.

THE WITNESS: Correct.

BY COUNSEL SWAMINATHAN:

Q Okay. So we've got about, I think, 80 percent of your time covered now with -- with what we've spoken about, about what your research focuses on. 12:17:02

What does the other 20 percent focus on?

A I wouldn't add the percentages quite so easily because these topics overlap so much. For example, a person with -- with autogynephilia, but doesn't want to be autogynephilic, might refer to themselves as a sexual addict because they feel like that they're addicted to the related pornography. 12:17:18

So which way it gets classified depends on 12:17:39

what classification system a person -- a person is using.

Q And so you testified earlier that autogynephilia is a paraphilia, but being transgender is not a paraphilia. 12:17:56

Why is a transgender identity not a paraphilia?

A More than one thing can motivate a person to want to live as the other sex. Autogynephilia is only one of them. 12:18:14

Q So being transgender is not a paraphilia because there are multiple -- multiple reasons for why an individual can identify as transgender; is that right?

A Yes, that's correct. 12:18:30

Q Okay. And what are the other reasons behind autogynephilia that go into that?

A The other primary one that's been identified is sexual orientation, homosexuality.

Q So homosexuality is, in your mind, a 12:18:47 contributing factor to someone identifying as transgender?

A It can motivate a person to feel gender dysphoric, yes.

Q What do you mean by "motivate"? 12:19:01

A Be the source of the desire to change.
Q Is there anything else that comes to mind when you said that there are multiple contributing factors that prevent -- or that in your mind do not categorize transgender -- diagnoses of gender 12:19:23
dysphoria as paraphilias?
We mentioned autogynephilia, and we mentioned homosexuality. Are there any others?
A The remaining predominant one I would describe, as I described them in my report, 12:19:39
individuals, typically young, who mistake the emotions that they're having to be gender dysphoria when they're actually motivated by something else, for example, a desire not to be associated with the sex that they would be biologically associated with. 12:19:58
Q And so beyond what you just described, what other emotions are these young individuals feeling that would make them want to be the other sex?
A That's a subject of ongoing -- ongoing investigation. We have some educated guesses, but I 12:20:18
can't say that the question has been entirely -- entirely answered.
Q And so similar to autogynephilia or homosexuality, is there a term to describe these -- the experiences of these young individuals who 12:20:35

mistake emotions that they are having for gender dysphoria?

A I can't think of a widespread term, no.

Q Is there any term that you use for it, to describe that phenomenon? 12:20:52

A No, I don't think so.

Q Okay. So is it your testimony that anyone who is transgender is transgender either due to autogynephilia, homosexuality or a mistake they've made as a -- as a younger individual and the 12:21:13 emotions that they are misconstruing as gender-dysphoric feelings? Is that your understanding?

A That's the best summary we have of the -- of the existing research, yes. 12:21:27

Q Okay. When did you become interested in sex research?

A Oh, I think I was probably always interested in sex research, and then I just found a way to make a living at it. 12:21:45

Q Okay. So I'm going to introduce tab 4, which will be marked as Exhibit 46. And it will take one minute to show up, so please give the system a second.

(Exhibit 46 was marked for identification 12:21:59

by the court reporter and is attached hereto.)

COUNSEL SWAMINATHAN: And, Travis, we can break after this -- after this exhibit.

BY COUNSEL SWAMINATHAN:

Q Can you see it there, Dr. Cantor? 12:22:16

A Not yet. Ooh. Oh, yeah.

Q Great. Okay.

And so this is an -- my -- my understanding of this document is that the Kinsey Institute, which is associated with Indiana University, has an 12:22:35 interview series, and they had a conversation with Dr. James Cantor, which I presume is you, in this context; is that true?

A Yes, it is.

Q Do you remember this interview? 12:22:49

A I can't say that I remember it specifically. I give a lot of interviews. But I remember its author, Justin Lehmiller, and I remember, roughly, the -- the kind of interview. But as I say, I can't take this specific interview out of the many that I 12:23:08 do.

Q That's fair.

I would love to give you just a -- a moment to review, if you want to reflesh -- refresh your recollection. 12:23:20

And I believe the question on the first page, by Lehmiller, is (as read):

"As a sex researcher, one of the most common questions you get asked is how you got into this line of work in the first place. So let's start there—what is it that drew you to this field of study? What's the story behind how you became a sex researcher?" 12:23:48 12:24:01

Did I read that correctly?

A Yes.

Q And when you answered, it says (as read):

"Cantor: I think it was mostly dumb luck." 12:24:12

Did I read that correctly?

A Yes.

Q What do you mean when you say that it was mostly dumb luck that you got into the sex researcher line of work? 12:24:24

A I was referring, at that point, specifically to the people who were my supervisors when I started my clinical internship. It's because they had a -- it's because they were doing active sex research and the atypical sexualities that I got exposed to it 12:24:43

with the depth that I did, with, you know -- with experts as well known as -- as they were.

I didn't pick that internship site because of the research that was going on there. I went for a relatively usual clinical experience where I thought my clinical experience with the trans patients would be the most relevant to my career. 12:25:00

And it's just because the other half of my exposure was with sex offenders and sex offender research that I realized that there was an opportunity there for me to think and research more broadly than I was -- than I had planned. 12:25:17

Q And you said you have done a number of these interviews, correct, over the course of your career?

A Yes. 12:25:32

Q And, you know, you strive to give accurate information in these interviews to the questions you're asked; right?

A Yes.

Q Yes. Okay. 12:25:42

Can you turn to the next page, please? I think it's page 2 of the document.

And Lehmiller asks you what your primary area of research and what methods do you typically use to answer your research questions. 12:25:59

Lehmiller asks you this question right after the first paragraph at the top.

And your response is, quote, (as read):

"My primary research opportunities have involved studying sex offenders, mostly pedophiles and persons with other atypical sexualities whose behaviours led them into the legal system." 12:26:11

Did I read that correctly? 12:26:23

A Yes.

Q And would it be fair for me to say that most of the patients that you work with are those who have had contact with the legal system?

A Depending on how you count them. 12:26:32

Q Can you tell me a bit more about that? I think I'm -- I'm trying to understand. Because you mentioned you have about 50 patients in your private practice at any given point in time. Of those --

A Right. 12:26:51

Q -- patients, are -- are they mostly folks who have had some contact with the legal system?

A No, they are not. And that's why, as I say, it's difficult to be able to count this way.

When I was doing research on sex offenders at 12:27:04

CAMH, my clinical contact was largely limited to roughly an hour or two per person, focused very specifically on history-taking and very specifically on the elements that would be useful in getting that person into the right kind of a treatment program. 12:27:24

So those people count in very many thousands because it's an hour or two per person.

Q Got it.

A Actual ongoing treatment with a psychotherapy patient is an hour with that person per week, going on for many months. 12:27:36

Q So --

A So just counting number of people is incomparable unless you're counting the number of people in a comparable situation. 12:27:48

Q Totally understood.

So the distinction there is that the population that you worked with at CAMH is different than the population that you're currently working with in your private practice; is that right? 12:27:56

A Correct.

Q Okay. And is it accurate to say that your primary research opportunities have involved studying sex offenders?

A That would be fair, yes. 12:28:06

Q So how many of your current patients, without violating any HIPAA laws, have been adjudicated as sex offenders?
A Current patients?
Q Yes. 12:28:25
A None.
Q None? And how many, approximately, if you can give me a percentage, of the patients that you saw at CAMH have been adjudicated as sex offenders?
A 80 percent -- 12:28:38
Q 80 --
A -- ish.
Q Okay.
COUNSEL SWAMINATHAN: So this might be a good place for us to break, for you to get lunch. 12:28:45
If we can go off the record.
THE VIDEOGRAPHER: Yep. We are going off the record at 12:28 p.m., and this is the end of Media Unit No. 3.
(Recess.) 01:20:01
THE VIDEOGRAPHER: All right. We are back on the record at 1:20 p.m., and this is the beginning of Media Unit No. 4.
Go ahead, please.
///

BY COUNSEL SWAMINATHAN:

Q So, Dr. Cantor, I understand you just had your lunch break. Did you have any conversations with your counsel during the lunch break?

A Not about the case, no. 01:20:19

Q They -- to clarify, they weren't about the substance of the deposition; right?

A Correct.

Q Great. So earlier this morning, you testified that in preparing for this deposition, you 01:20:30 did a review to find updates in the literature; is that correct?

A Yes.

Q When did you complete this review?

A Oh, I would hesitate to say that I ever 01:20:41 completed it or ever would complete it. I'm, you know, often scouring the literature, and I'm often made aware of new papers as they come out, and I keep a list to go -- to go back through them.

Q Understood. I -- I think -- 01:20:58

A So --

Q -- a better question then is, when did you conduct your review in preparation for this deposition?

A Right up through, let's say, a few weeks 01:21:03

before I submitted the final version. I don't remember the exact date.

Q Got it. And did you indeed find any updates in the literature that you thought to include in your updated report? 01:21:23

A I don't recall specifically. As I say, I keep a reading pile and a reading list, and every time I need to produce a document, I go through it and -- and update it. I can't say that I have a specific recollection of the size of that pile 01:21:38 before this specific report.

Q Got it. So would you be able to give me a more general understanding of whether there was new literature that you reviewed in connection with drafting your second report? 01:21:50

A Yes, there -- there was a -- it had -- yes, there's been a pretty substantial increase relative to the very slow rate at which this literature was -- was growing. So there was a substantial amount published in 2020 and 2021 that -- that I 01:22:11 needed to -- to include and -- that I needed to include.

Q And sitting here right now, you just can't remember the names of the specific articles or literature ; right? 01:22:25

A No, I can't. Generally, I do it chronologically.

Q Okay. I'm going to ask you a bit about the individual plaintiff in this case.

So do you know who B.P.J. is? 01:22:33

A Only in theory. I've never met the person. I couldn't -- and, of course, I have no direct contact with the -- with the client themself.

Q And you've never spoken to anyone in her family either; right? 01:22:51

A Correct.

Q You've personally not spoken to anyone at her school; right?

A Correct.

Q Have you reviewed any of B.P.J.'s medical records? 01:22:59

A If I have, I'm not recalling. In general, I go through a medical record to take note of anything, you know, specific of relevance. If I did in this, I would have made such a note, and I don't recall doing so. 01:23:19

Q So it's your testimony today that you -- you have not reviewed any of B.P.J.'s medical records; right?

A Yes. 01:23:30

Q Okay. Did you read B.P.J.'s declaration in this case?
A Not that I recall, no.
Q You read the intervenor's declaration in this case; right? 01:23:46
A The interview?
Q The intervenor. My apologies.
A I'm sorry, who is this?
Q Lainey Armistead, the intervenor in this case. 01:23:57
A I'm -- did I see a copy of that?
Q I'm just trying to get an understanding of whether you read her declaration or not.
If you -- what might be helpful is if you turn to Exhibit 45, which is your expert report that 01:24:10 you prepared in 2022, and on page 4 of that expert report -- I'll -- I'll wait for you to -- to get there so we can review.
A Oh, yes.
Q So fair to say number 9 on page 4 of your 01:24:40 expert report says (as read):
"To prepare the expert report, I reviewed the following resources related to this litigation."
And A is H.B. 3293. 01:24:48

B, the amended complaint in this litigation.

C, Ms. Armistead's declaration.

Do you see that?

A Yes, I do.

Q Why did you read the intervenor's declaration? 01:25:00

A I was provided each of those documents in the beginning. I reviewed the documents to see if there's anything -- if there's anything relevant. There wasn't anything relevant that I could -- that I anticipated being in the report, so, of course, I concentrated on the materials that were relevant. 01:25:09

Q Got it. And is there any reason that you were not provided the plaintiff's declaration in this case, to your knowledge? 01:25:24

A I -- I couldn't say why I -- I have no idea why I wouldn't have been given something. I -- no, I have no idea why I wouldn't have been supplied with a -- with a copy.

Q That's fair. Okay. 01:25:38

So we're going to continue with Exhibit 45, which is your report, and can you please turn to page 3, which is just the page before the one you were on.

Can you please take a moment to review this 01:25:51

page and let me know when you're ready.

A Okay.

Q So the last paragraph on the page reads, quote, (as read):

"In addition, I have been asked to provide an expert opinion on how relevant professional organizations have addressed these questions and whether any of them have taken any meritorious position that would undermine West Virginia's Protect Women's Sport Act (H.B. 3293) ('Act'). As I explain in detail in this report, it is my opinion that Plaintiffs' expert reports display a wide variety of flaws that call their conclusions into question and that no professional organization has articulated a meritorious position that calls into question the basis for the Act."

Did I read that correctly?

A Yes.

Q So with respect to the Act, your role in this case is to review the opinions of various

01:26:28 01:26:37 01:26:49 01:26:59 01:27:09

professional organizations and determine if they have taken any meritorious positions that would undermine the Act; right?

A That included that, yes.

Q Are you offering any positions in support of the Act? 01:27:21

A I don't think I can be said to be offering any opinions in support or against the Act so much as providing the information that's in the science, and then the political and legal process need to integrate it into policy in the way that they do, but I'm not making any specific recommendation about any specific act. 01:27:43

Q So it's fair to say that you're not offering any positions in support of H.B. 3293; right? 01:27:57

MR. TRYON: Objection to form.

A Not in support of it. I can only say what elements of it are consistent or inconsistent with the existing science.

BY COUNSEL SWAMINATHAN: 01:28:13

Q And are those opinions of whether they are consistent or inconsistent included in your report?

A Yes.

Q So is your main role here today to show that the organizations have not, in your view, undermined 01:28:26

the Act?

A I'm sorry, say that again.

Q Is your role in providing your expert testimony to show that the professional organizations have not, in your view, undermined the Act? 01:28:38

MR. BARHAM: Objection to form.

THE WITNESS: Is my position -- I'm sorry, one more time.

BY COUNSEL SWAMINATHAN: 01:28:52

Q No problem. I want to make this as clear as possible for you.

I'm just trying to understand that your role is to show that no professional organization has articulated a meritorious position that calls into question the basis for the Act; right? 01:29:02

MR. TRYON: Objection.

MR. BARHAM: Objection to form.

THE WITNESS: I -- I don't think I can say that that is my purpose, although I'm aware of the legal context in which the questions are being asked of me. But I'm not -- being asked of me. But -- but my only opinions are -- can be about -- can only be about what is or is not supported by the science. Where it goes from there is up to the -- it's up to 01:29:13 01:29:31

others.
BY COUNSEL SWAMINATHAN:
Q Understood. So rather than your purpose, just one, you know, objective that you achieved via drafting this report is to opine on whether any professional organization has articulated a meritorious position that calls into question the basis for the Act; right? 01:29:44
MR. TRYON: Objection.
THE WITNESS: If I'm understanding properly the way you're asking the question, it's am I only going to give opinions one side versus the other, which is not correct. My role has been to assess altogether the role of the science regardless of which way those facts fall, not to cite the facts merely on one side of the argument. 01:29:57 01:30:16
BY COUNSEL SWAMINATHAN:
Q Right. And so you spoke about the science.
So how do you believe that the Act is supported by the science that you're referring to? 01:30:27
MR. BARHAM: Objection as to form.
THE WITNESS: That question -- that question goes outside what I was -- what I've been asked to do. I was -- I'm not and did not include in my report the science specific to athletic performance. 01:30:56

As my report contains, it is an overview and -- describing the science of gender identity in general, which, of course, will get adopted into the question, but I am not offering an opinion on the amount, for example, by which being born male might serve as an athletic advantage relative to other females. I was not asked that question, and that question is not in my report, but that's the part that's most pertinent to the -- to the long question. 01:31:19 01:31:32

BY COUNSEL SWAMINATHAN:

Q So how is the science that you discuss in the report relevant to the Act?

MR. BARHAM: Objection to the scope and form.

THE WITNESS: In order for any government to institute policies that best integrate the science into whatever they do, they need to know that science. The same for Courts. So in order to balance whatever a Court perceives as the relevant issues, they need that information before them to make the -- to make any decision. 01:31:54 01:32:10

BY COUNSEL SWAMINATHAN:

Q But you're not a lawmaker; correct?

A Correct.

Q And you're not offering an expert opinion 01:32:23

regarding whether science supports the Act; right?
A I wasn't asked to review the part of the science that is most directly involved in the Act, that is to say, specifically differences in athletic performance between the genders -- sexes, I should say. 01:32:45
Q But it's fire say that you're not offering an expert opinion regarding whether science supports the Act; right?
MR. TRYON: Objection. 01:32:54
THE WITNESS: I -- the questions, as posed to me and as phrased in my report, are neither to support nor to detract from the law but merely summarize the science and indicate parts of overlap and parts of contradiction. None of it is in -- is 01:33:21
in -- is a means to accomplish any specific end.
BY COUNSEL SWAMINATHAN:
Q Dr. Cantor, I think my question might be a yes-or-no question. I am just asking, you know, whether you believe that you're offering testimony 01:33:36
today and in connection with your report as to whether science supports this act.
I understand that earlier you said you were not offering an opinion on whether -- on -- on either side, whether to support or not support 01:33:53

the Act.

So I think my question might be a yes-or-no question.

A I don't think it is a yes-or-no question. Science is, you know, complicated. There are -- 01:34:03
this issue is complicated. And it's quite feasible that, you know, pieces of science will support some aspects and not others.

Q Okay. So, again, if you can clarify, what in your report is relevant to the Act? What testimony 01:34:19
that you've offered in your report is relevant to the Act?

A All of it.

Q How is all of what you offer relevant to the Act? 01:34:32

A In a decision made to affect trans people, one needs to be, as much as possible, aware of the science of trans people.

Q Okay. And so it's your testimony that all of the opinions that you offer in your report are 01:34:54
opinions related to H.B. 3293; is that correct?

A Yes.

Q Okay. And you agree that the Act is a decision that's made to affect trans people; correct? 01:35:17

A I'm not a lawyer, but --

MR. TRYON: Objection.

THE WITNESS: I'm not a lawyer myself, but I think that's fair for me to say, yes.

BY COUNSEL SWAMINATHAN: 01:35:25

Q Okay. And what is your understanding of H.B. 3293?

A That it requires people who were born male to play -- it forbids people who were born male from playing on female teams. 01:35:36

Q And have you read the text of the Act?

A Yes, I have.

Q You've read it from top to bottom?

A From what I believe to be the top and what I believe to be the bottom, yes. 01:35:49

Q Okay. So what is your understanding of what the, quote, basis for the Act is?

MR. BARHAM: Objection as to form and the scope.

THE WITNESS: To ask for the basis of the Act I think is to ask what is on the minds of the political system and the politicians who created it, which, of course, I can't know. 01:36:14

BY COUNSEL SWAMINATHAN:

Q I'm -- I'm definitely not asking you to read 01:36:27

into the minds of the politicians.

I'm -- I'm going to read again the last sentence on page 3 of your expert report that says (as read):

"As I explain in detail in this report, it is my opinion that Plaintiffs' expert reports display a wide variety of flaws that call their conclusions into question and that no professional organization has articulated a meritorious position that calls into question the basis for the Act." 01:36:36 01:36:46

So I am simply asking you what your understanding of the basis for the Act is. 01:37:01

A That the Act was necessary to improve the lives of the students on these teams.

Q Can you be more specific about "the students on these teams"? What do you mean by that?

A To balance the rights, needs and privileges of each of the groups. 01:38:00

Q Who are the groups that we're speaking about?

A The people on the teams, the -- the competitors, the trans students and then their, typically, non-trans teammates. 01:38:13

Q And which teams are we specifically talking about?
A I wasn't -- I wasn't talking about any particular sport, but this -- this would be any sex-segregated teams. 01:38:28
Q Okay. And how did you develop the understanding that you just shared with me?
A I take it on general principles as the purpose behind any law is to improve the situation for the citizens relevant to it. 01:38:48
Q And how does this act impact the live -- lives of trans students?
A I have no direct knowledge of that kind of impact outside of what's reported in the science, and I'm not aware of there being any objective signs measuring such an outcome. 01:39:05
COUNSEL SWAMINATHAN: Court Reporter, can you please read back Dr. Cantor's answer before this one?
(Recess.) 01:39:16
BY COUNSEL SWAMINATHAN:
Q So, Dr. Cantor, do you think that the Act improves the lives of trans students?
A There's no way for me to know that without data, and we don't have any. 01:39:43

Q Do you have data on how it improves the lives of non-transgender students?
A No. The topic hasn't been studied.
Q So your report discusses prepubertal kids; right? 01:40:05
A In part, yes.
Q A portion of your report discusses prepubertal kids; right?
A Yes.
Q That discussion does not pertain to the 01:40:13
population affected by H.B. 3293; correct?
MR. BARHAM: Objection; form, scope and terminology.
MR. TRYON: Objection.
THE WITNESS: No, that's not correct. 01:40:27
BY COUNSEL SWAMINATHAN:
Q How does your discussion about prepubertal kids pertain to the population affected by H.B. 3293?
A The prepubertal kids become pubertal kids, 01:40:37
then become adolescents, even though they are participating in these teams. For example, in teenagehood, they still are members of -- they are still a member of the demographic group where they were. So they would still represent a phenomenon of 01:40:52

child-onset gender dysphoria even after they cease to be a child.

Q What is your understanding of who is impacted by H.B. 3293?

A Participant- -- everyone who participates and follows in the -- the relevant sports. 01:41:11

Q And you said that prepubertal kids -- your -- your discussion on prepubertal kids pertains to the population affected by H.B. 3293 because prepubertal kids become pubertal kids who become adolescents; right? 01:41:28

A Correct. The classifications are according to when the -- the dysphoria starts, not where it currently is.

Q So is it your opinion that adolescents are still prepubertal kids? 01:41:40

A No, they are not.

Q Your report discusses adult-onset gender dysphoria; right?

A Yes, it does. 01:41:58

Q That discussion also does not pertain to the population affected by H.B. 3293; right?

A That is not correct.

Q Can you explain to me how adult-onset gender dysphoria pertains to the population affected by 01:42:15

H.B. 3293?

A That's now a different question. You're now asking me about adult onset rather than adult trans people who may or may not have been dysphoric earlier. 01:42:29

Q Can you explain that difference to me?

A The -- the science demonstrates over and over again that the age -- the age of development at which one starts to feel highly dysphoric allows us to predict the -- predict many other phenomena and 01:42:46 the life trajectory that the person is on.

If a person is adult onset, which not always, but in most of the literature is midlife, 30s and 40s, this would be past the student athletics age, but if the person has -- but that's different from 01:43:06 people who had childhood-onset dysphoria, continue to have that dysphoria and then eventually become adults.

Q What studies are you talking about when you just mentioned that there are studies with data that 01:43:23 show over and over?

A The -- the -- the studies that show over and over -- which specific point?

Q Well, you just -- you tell me. You -- you were just talking about studies that show that 01:43:42

adult-onset gender -- the differences between adult-onset gender dysphoria and gender dysphoria in adults; right?

A Right.

Q I'm -- I'm just trying to understand what studies you were relying on when you just gave me that explanation of the differences. 01:43:54

A Oh. There are many dozen such studies, including those cited in my report. These are the studies that demonstrate that it's the adult onset, not the childhood onset which experience, for example, autogynephilia. 01:44:08

Q So you say there are dozens, and I absolutely do not expect you to recant every study cited in your report, but can you name a few studies that you're referring to? 01:44:23

A I can't recite their titles. The original author who started most of those were Ray Blanchard, and then many others have continued, such as Anne Lawrence, who I mentioned earlier. 01:44:40

Q And you've cited -- cited these studies in your report; is that correct?

A I don't recall exactly which of those studies that I mentioned, but in the section on adult-onset gender dysphoria, I provide the appropriate topic -- 01:44:54

provide the appropriate summary, with references.
Q Okay. And the discussion of adult-onset gender dysphoria is not relevant to the Act; correct?
MR. BARHAM: Objection; asked and answered. 01:45:11
MR. TRYON: Objection.
THE WITNESS: It -- no, it -- it is relevant -- no, it is relevant.
BY COUNSEL SWAMINATHAN:
Q I'm sorry, I don't think I heard an answer as to why it is relevant. 01:45:25
A Oh, I'm sorry. It's relevant in order to help understand, especially with so much misinformation being circulated today, which facts apply to which group. 01:45:42
Q Which groups are you speaking about?
A Which onset -- which age -- which type of onset of gender dysphoria we're talking about.
Q And --
A But -- 01:45:56
Q I'm sorry, go -- I apologize for cutting you off.
A Adult-onset gender-dysphoric individuals who come in and are otherwise mentally healthy are shown to do very, very well after transition. But one 01:46:10

needs to know that phenomenon is limited to the adult onset type so as to not misapply it to the childhood onset types.

So even though the law would not directly pertain to the behaviors of the adult onset type, one needs to understand the functioning of the adult onset type so as not to confuse the information about it with information about the childhood onset type. 01:46:22

Q But we agree that the Act does not apply to the adults that we're speaking about; right? 01:46:35

MR. TRYON: Objection.

THE WITNESS: As I -- as I've just -- as I just explained, it's not relevant in a direct way, but in order to understand the information about childhood onset, one requires information about adult onset with which to contrast it. 01:46:49

BY COUNSEL SWAMINATHAN:

Q Okay. And your report also discusses people with the female sex assigned at birth? 01:47:02

A Yes.

MR. TRYON: Objection; terminology.

BY COUNSEL SWAMINATHAN:

Q That discussion also does not pertain to the population affected by H.B. 3293; right? 01:47:17

MR. TRYON: Objection.
MR. BARHAM: Objection; form, scope, terminology.
THE WITNESS: No, that is not correct either.
BY COUNSEL SWAMINATHAN: 01:47:25
Q So how does -- how does your report's discussion about people with a female sex assigned at birth pertain to the population effected by H.B. 3293?
MR. BARHAM: Objection; terminology. 01:47:36
THE WITNESS: For the same reason. There's a great deal of information being offered -- being offered which pertains only to a certain subtype of gender dysphoria, and in order to make sure that like goes with like, one needs to understand all of 01:47:51 them so information about one kind of transition doesn't get confused with other kinds of transition.
BY COUNSEL SWAMINATHAN:
Q Is it fair for me to say that H.B. 3293 does not determine whether a person with the female sex 01:48:07 assigned at birth can play on any specific sports team; correct?
MR. BARHAM: Objection --
MR. TRYON: Objection.
MR. BARHAM: -- form, scope and terminology. 01:48:20

THE WITNESS: As I read the law, it doesn't alter directly or doesn't affect the -- the behaviors available for -- it is a one-way ban, not -- it bans people born as male to play on female teams, but not people born female to play on male teams, is my understanding of the law. 01:48:40

BY COUNSEL SWAMINATHAN:

Q Got it. And are you offering an expert opinion on whether transgender girls and women should be allowed to play on sports teams consistent with their gender identity? 01:48:52

A I'm not -- not offering such an opinion of my own. I'm just evaluating what's been circulating relative to the existing science.

Q So would you agree that H.B. 3293 is a one-way ban? 01:49:03

MR. TRYON: Objection.

MR. BARHAM: Objection; form and scope.

THE WITNESS: Again, I'm not a lawyer. I'm not aware of a technical definition for one way, but it certainly seems to fit that. 01:49:19

BY COUNSEL SWAMINATHAN:

Q So the population of people affected are not people with adult-onset gender dysphoria; right? We agree -- we discussed that; right? 01:49:33

MR. TRYON: Objection.

THE WITNESS: The law doesn't pertain to their behavior specifically, correct.

BY COUNSEL SWAMINATHAN:

Q And are you offering an opinion on whether an 11-year-old transgender girl who has been on puberty blockers since Tanner stage II should be allowed to play on the girls' cross-country team consistent with her gender identity? 01:49:40

A I'm not offering a specific opinion like that, no. 01:49:54

Q Okay. Are you opining that H.B. 3293 is justified because it discourages children and adolescents from being on a pathway toward life as a transgender person? 01:50:12

MR. TRYON: Objection.

THE WITNESS: No, that -- no, I'm not.

BY COUNSEL SWAMINATHAN:

Q Do you believe that H.B. 3293 discourages children and adolescents from being on a pathway toward life as a transgender person? 01:50:22

MR. BARHAM: Objection.

MR. TRYON: Objection.

THE WITNESS: There's no way for me to know that. 01:50:33

BY COUNSEL SWAMINATHAN:

Q What is your understanding of the impact on -- of H.B. 3293 on the decision to transition for children and adolescents suffering from gender dysphoria? 01:50:46

A I'm not aware of that ever having been studied.

COUNSEL SWAMINATHAN: Okay. I'm going to introduce tab 5, which has been marked as Exhibit 47. 01:51:00

(Exhibit 47 was marked for identification by the court reporter and is attached hereto.)

BY COUNSEL SWAMINATHAN:

Q Again, it takes a moment to refresh and load, so please let me know when you have it. 01:51:32

A I have it.

Q Great. And have you seen this document before, Dr. Cantor?

A It's not looking familiar to me, no.

Q It's not looking familiar to you. 01:52:03

You did not help author this document, then, I understand; right?

A No.

Q Okay. I will represent to you that these are the State of West Virginia's responses to plaintiff 01:52:19

B.P.J.'s first set of interrogatories, dated November 23rd, 2021.

I'm going to be focusing on page 9 of the document, if you are able to turn to page 9.

A One moment. 01:52:40

Q No problem. Take your time.

A Got it.

Q Great. And so Interrogatory No. 6, which is at the top of the document, asks the State to "Identify all governmental interests that YOU" -- 01:52:56 the State of West Virginia -- "believe are advanced by H.B. 3293."

Do you see that?

A Yes, I do.

Q And the state, in its response, says (as 01:53:08 read):

"Without waiver of any objections, the State asserts the following interests, primarily and in general, which are advanced by the Protection 01:53:19 of Women's Sports Act."

And there are three items listed under there. The first is "To protect Women's Sports." The second, "To follow Title IX." And the third, "To protect women's safety in female athletic sports." 01:53:33

Do you see that?
A Yes, I do.
Q Okay. So are you offering an expert opinion with respect to whether H.B. 3293 serves the interest of protecting women's sports? 01:53:46
A I haven't been asked that, no.
Q Okay. And are you offering an opinion with respect to whether H.B. 3293 serves the interest of following Title IX?
A I haven't been asked that, no. 01:54:03
Q Okay. And are you offering an opinion with respect to whether H.B. 3293 serves the interest of protecting women's safety in female athletic sports?
A I have not been asked that, no.
Q And are you aware that H.B. 3293 applies to college athletes as well? 01:54:20
A Yes.
Q Do you have any opinions on whether H.B. 3293 should apply to college athletes?
A I have no opinion in any direction. 01:54:33
Q Okay. So it's -- it's fair to say that you don't have an opinion on -- on that issue; right?
A Yes.
Q Okay. So I want to talk a bit about your experience with the treatment of gender dysphoria. 01:54:56

I understand earlier that you testified that you're not an endocrinologist; right?
A Yes.
Q And you personally have not diagnosed any child or adolescent with gender dysphoria; right? 01:55:05
A Correct.
Q And you personally have never treated any child or adolescent for gender dysphoria; right?
A Correct.
Q Okay. And you don't provide psychotherapy 01:55:18
counseling to children or adolescents with gender dysphoria; right?
A Age 16 or above, I do. Under age 16, I do not.
Q And so it was your testimony earlier that you 01:55:38
see about six to eight patients age 16 to 18; correct?
A Roughly, yes.
Q Roughly. And so roughly, of those six to eight patients, how many of those patients come to 01:55:49
you suffering from gender dysphoria?
A Those -- those people come to me -- I'm sorry, could you ask that again?
Q Sure. I -- I must have phrased it poorly.
So of the six to eight patients that you see, 01:56:11

on average, who are ages 16 to 18, how many of them have a gender dysphoria diagnosis?

A I don't recall if they came in already with such a diagnosis or at least I don't recall how many would have had -- would have already been assigned such a diagnosis by another clinician before they got to me. 01:56:46

Q Would you be able to share with me roughly how many of them identify as transgender or gender dysphoric? 01:57:01

A When they come to me, they're not sure of what their identity is. That's often among their questions.

Q Okay. And what professional training or expertise do you possess to provide psychotherapy counseling to those adolescents who come to you questioning whether they have gender dysphoria or not? 01:57:14

A Do you mean my licensing or education?

Q Your licensing. 01:57:30

A My licensing is as a clinical psychologist, registered in Ontario, specifically for adults and adolescents age 16 and up.

Q Okay. And so that licensing does not pertain -- or allow you to provide psychotherapy 01:57:41

counseling to anyone under the age of 16; correct?
A Correct.
Q Okay. Are you familiar with the term "affirmation on demand"?
A Yes. 01:57:56
Q What does that term mean?
A It refers to permitting a person to engage in whatever available methods to acknowledge or to medically induce their transition with no other -- with no evaluation or supervision. 01:58:15
Q Has any patient ever come to you asking for affirmation on demand?
A No.
Q What is your basis for saying that providers are providing affirmation on demand to children and adolescents with gender dysphoria? 01:58:31
A Through several venues. I get that information from parents, from people, you know, in society who e-mail me asking for help. There's a large number of media reports of it happening 01:58:49 throughout the world, U.S., Canada and Europe. And there's now been -- there are now several governmental entities, mostly in Europe, are now beginning more formal investiga- -- investigations of it. 01:59:05

Q Okay. So let me see if I understand this correctly.

You said parents, people who e-mail you, news sources and information put out by government entities, most commonly in Europe; is that correct? 01:59:17
Those are the sources from which you've heard that providers are providing affirmation on demand?

A That question sounds slightly different to me.

There's affirmation on demand as an idea. 01:59:36

Q Uh-huh.

A And then there are the actual processes that clinics are doing in which they're providing affirmation without sufficient evaluation. So it's starting to approach affirmation on demand, which 01:59:51
would be the name for the most extreme version.

Q I see. And so have you spoken to providers who claim to provide affirmation on demand to children and adolescents with gender dysphoria?

A No. The people who are -- seem to be 02:00:11
providing it deny that that's what they're doing.

Q Have you -- are you personally aware of any providers who fail to conduct the sufficient evaluation that you just mentioned that teeters on the edge of affirmation on demand? 02:00:25

A I'm not clear on what you mean by "personally aware" beyond the way that I already described how I become aware of it.

Q I think I'm just trying to understand more how that you know for certain providers are providing affirmation on demand. 02:00:46

A Again, that -- that seems to be the question you asked before, where it's a series of different kinds of sources.

Q But none of those sources are actual providers who provide this care; right? 02:01:00

A Again, as I said already, most of the people who seem to be providing something that would reasonably be called that deny that that's what they're doing. 02:01:16

Q Has anyone at your hospital, to your knowledge, provided affirmation on demand?

A When you say my hospital, I assume you mean my former affiliation at CAMH.

Q Yes. Apologies. 02:01:33

Has anyone, to your knowledge, at CAMH provided affirmation on demand?

A No. The clinic there is known for being cautious.

Q So you've not talked to any other providers 02:01:48

who have claimed to provide affirmation on demand; right?

A Correct. The people who seem to be providing it deny that that's what they're providing.

Q Okay. And your only evidence that affirmation on demand is being provided is from parents, from people and society directly e-mailing you, from news sources and from the government entity releases that you spoke about earlier; right? 02:02:03

A Correct. 02:02:19

Q Okay. Have you read any studies that show that providers are providing affirmation on demand to children and adolescents with gender dysphoria?

A No. No, I'm not. As I say, the -- the providers don't acknowledge that that's what they're doing to begin with, leaving little opportunity to study it at all. 02:02:38

Q Okay. What do you understand desistance to mean in the context of gender dysphoria?

A Different people use the words in slightly different ways or with different cutoffs, but in general, they -- they refer to a person realizing that they weren't actually trans after all. 02:02:53

Q So you said different people have maybe different definitions. 02:03:08

What is your definition of desistance?

A I don't think I can really say that I have a definition so much as I do my best to understand what the person taking to me or the document that I'm reading, what they meant by it and then going with, you know, whatever meaning it is that -- that they meant. 02:03:25

Q I guess I'm trying to understand.

So in your professional practice, what different variations of understanding of the word "desistance" have you encountered? 02:03:43

A Generally, they would differ according to how far along the transition process the person was to begin with. A person suspecting that they might be trans and then figuring out that they're not is very different from a person who transitions, socially changed a name and then changed it back, which is still again very different from somebody who has taken hormones or gone through surgery and then regrets that. 02:03:59 02:04:14

Q Okay. You spoke about regret.

What do you understand regret to mean in the context of desistance?

A Wishes that they had never gone through transition to begin with. 02:04:24

Q Okay. And are you aware of any studies tracking desistance in adolescents with gender dysphoria?

A I'm aware of studies that have included it inside of a larger study of the phenomenon -- of trans adolescents in general. There have -- I've seen that there exists now a small handful of studies trying to survey those kids. I haven't studied them yet in any depth, however. 02:04:41

Q Okay. Would you know the names of any of these small handful of studies you just mentioned? 02:05:06

A Not offhand, no.

Q Would you know any of the authors of these studies or the people who are in the process of collecting this data? 02:05:21

A Not offhand, no.

Q Okay. And are any of these studies cited in your report?

A No, they are not.

Q Okay. So I'm going to introduce tab 7, which is going to be marked as Exhibit 48. Give me one moment for it to show up on your end. 02:05:29

Are you --

(Exhibit 48 was marked for identification by the court reporter and is attached hereto.) 02:06:07

THE WITNESS: Yes.
BY COUNSEL SWAMINATHAN
Q Great. Do you recognize this blog post, Dr. Cantor?
A Yes, I do. 02:06:16
Q So this is a blog post entitled "Do trans kids stay trans when they grow up?"
You authored this post in Sexology Today!; correct?
A Correct. 02:06:29
Q And you wrote this in 2016. It says January 11th, 2016; correct?
A That's right.
Q Okay. And so I want to turn your attention to the -- the second paragraph of -- the top of the 02:06:43 page. You write (as read):
"Only very few trans- kids still want to transition by the time they are adults. Instead, they generally turn out to be regular gay or 02:06:57 lesbian folks."
Did I read that accurately?
A Yes.
Q What does "regular gay or lesbian folks" mean? 02:07:08

A No other sexual interest phenomena that would better account or better describe what they're interested -- what they're interested in.

Q What are non-regular gay or lesbian folks, then? 02:07:24

A For example, somebody with a -- with a paraphilia or with a fetish that makes the determination of their sexual orientation a bit moot.

Q What does that mean, to make it a bit moot? 02:07:36

A That their sexual interest pattern doesn't follow along what most people are generally familiar with in -- in discussing attraction to men or attraction to women.

Q Okay. So if a child's gender dysphoria were to persist and they continued to want to transition by the time they are adults, what are they, in your view? 02:07:53

A If -- they would most -- they would be in the running to qualify -- the emotion they would be describing would be gender dysphoria. Whether they qualify for the diagnosis depends on -- would require a more fulsome assessment. 02:08:11

Q Would they be irregular, in your mind?

A They would be atypical in that it is 02:08:25

statistically a rarer phenomenon than cisgender is.

Q I heard you say, just a few seconds ago, they would be in the running for, and then you kind of cut off, I thought.

What did you mean to say when you said they would be in the running for? Would they be in the running for being transgender? 02:08:44

A Yes, that would be possible, but I can't make that kind of conclusion without the person undergoing, as I say, a more fulsome assessment, looking for other possible motivators for why they might feel gender dysphoria. 02:08:57

Q So what do you -- let's see.

Are you aware that gender identity and sexual orientation are distinct concepts? 02:09:12

A Yes.

Q Yes? Are you aware that someone can be transgender and gay?

A Yes, although the particular phrases become a little bit more complicated when a person is changing sex and you're trying to say what they're attracted to relative to the sex they are. 02:09:24

Q And is it equally as complicated for the understanding that someone can be transgender and a lesbian? 02:09:43

A Is it complicated? Yes.
Q Is it more complicated than someone being transgender and gay?
A No. This is the same complication.
Q The same complication. Okay. 02:09:56
Dr. Cantor, do you believe that social transition for gender-dysphoric adolescents after age 12 is appropriate?
A That's an empirical question -- that's an empirical question, and the science unde- -- is 02:10:17 still somewhat undecided about it.
Q I'm just asking for your opinion, though.
Do you believe that social transition for gender-dysphoric adolescents after age 12 is appropriate? 02:10:35
A It's not possible to have an opinion outside of the science.
COUNSEL SWAMINATHAN: Okay. I'm going to introduce tab 23, which is now going to be marked as Exhibit 49. 02:10:49
(Exhibit 49 was marked for identification by the court reporter and is attached hereto.)
THE WITNESS: I see it.
BY COUNSEL SWAMINATHAN:
Q Great. And if you can turn to the second 02:11:15

page of this article, which is an article titled "When is a 'TERF'" --

COUNSEL SWAMINATHAN: For the court reporter, that's T-E-R-F.

BY COUNSEL SWAMINATHAN: 02:11:26

Q -- "not a 'TERF'?" authored on July 20- -- July 8th, 2020.

And this is an article written by you, right, Dr. Cantor?

A Yes, it is. 02:11:36

Q And if you turn to page 2, you'll see, around the middle of the page, the -- the third paragraph that begins with (as read):

"I support age 12, not for any ideological reason, but because that 02:11:51 is what the (current) evidence supports: The majority of prepubescent kids cease to feel trans during puberty, but the majority of kids who continue to 02:12:04 feel trans after puberty rarely cease."

Do you see that?

A Yes, I do.

Q So is it fair to say that you support social 02:12:09

transition for gender-dysphoric adolescents at age 12?

A No.

Q No? So this article is authored in July of 2020. 02:12:29

So has your opinion changed from July 2020 -- July 2020 to now?

A Science has changed, and as I say, my opinion just follows the science.

Q How has the science changed? 02:12:42

A The -- several of the papers that were being circulated in the late 2019s have turned out to be wrong. Some were retracted. Some were reanalyzed, and it was shown that their results were not correct to begin with. And it was recognized that those 02:13:02 studies which did seem to be indicating an improvement over -- over transition, such kids were receiving psychotherapy in addition to receiving medical transition.

Once that was recognized, we could no longer 02:13:15 conclude that it was any -- the medical transition -- that it was the medical transition or any other transition being the source of the benefit rather than the psychotherapy itself.

So once the evidence supporting earlier 02:13:28

transition evaporated, then one's opinion of that science has to change with it.

Q So you mentioned studies that have been changed or retracted. What studies are you talking about? 02:13:42

A It's a series of -- a series of studies, all of which have been -- are cited in my report.

Q Can you name a few of those studies?

A I'm better with names if I could have my report in front of me at the same time. 02:13:56

MR. BARHAM: The latest report is Exhibit 45; is that correct?

COUNSEL SWAMINATHAN: That is correct.

THE WITNESS: Bränström and Pachankis 2019 became retracted. 02:14:53

BY COUNSEL SWAMINATHAN:

Q Any others?

A Olson, et al., was demonstrated to be incorrect.

The Costa study, although it came out 02:15:37 earlier, it then became better known once the other studies started -- after the other studies started showing that they were in error.

Q And you're talking about the Costa 2015; is that correct? 02:16:00

A Yes.
Q Okay.
A So those are the --
Q Okay. Thank you, Dr. --
A Those are the ones -- okay. 02:16:06
Q So, Dr. Cantor, what is the Dutch protocol?
A The Dutch protocol started outside of Canada. The largest clinic for children's gender dysphoria was in the Netherlands. They also took a conservative method, like -- like the clinics in 02:16:26 Canada, where children who were otherwise qualified would be allowed to begin taking puberty blockers at age 14 and then cross-sex hormones at age 16.
Q And the Dutch protocol allowed for a social transition after age 12; right? 02:16:46
A It was during adolescence. I don't recall the specific age.
Q Let me turn your attention to a page in your report that might help you reflect (sic) your recollection. 02:17:02
So if you could turn to page 19 of your report.
A One moment.
Q No problem.
And at the top of the page, it says that "The 02:17:23

components of the Dutch Approach are: no social transition at all considered before age 12..." which they describe as the watchful waiting period.

A Correct.

Q So is it fair to say that the Dutch protocol allows for social transition after age 12? 02:17:36

A Allows for it? Yes.

Q So is it your opinion as you testify today that you disagree with the Dutch protocol with respect to the age at which it allows for social transition? 02:17:53

A There were some pieces missing in that.

As I said, the Dutch protocol, at the time, was developed on the data that was available at that time. Both have changed -- well, the Dutch protocol, as we call it, hasn't changed, but the clinics themselves have -- are now becoming more conservative, as the original version of the Dutch protocol has not been as well replicated. 02:18:15

But instead of clinics raising their standards, like is happening throughout Europe, clinics in the U.S. who are receiving reports are lowering their standards. 02:18:29

Q I see. And so if you look at page 18 of your report, just the page before, and you look at 02:18:42

paragraph 46, in the last sentence of your paragraph, you state, quote, (as read):

"Internationally, the Dutch Approach is currently the most widely accepted and utilized method for treatment of children who present with gender dysphoria."

End quote.

Do you agree with that statement? 02:18:54

A Yes, that would -- that would still be fair to say. 02:19:02

Q Okay. Dr. Cantor, what puberty-blocking drugs are you aware of?

A Oh, I couldn't tell them to you by name so much as by function. 02:19:20

Q What are you aware of about the function of puberty-blocking treatment?

A Well, there are a series of signals in the brain that indicate to different parts of the brain and different parts of the body when to -- that they should be maturing. The puberty blocker stops -- stops that cycle. 02:19:34

Q And, again, you are not an expert in the different types of prescription drugs that are used as puberty-blocking agents; right? 02:19:50

A That is correct.
Q Okay. You have never obtained informed consent to provide puberty blockers; right?
A Correct.
Q And you've never had a patient sign an informed consent form relating to puberty blockers; right? 02:20:03
A Correct.
Q You personally have no experience with monitoring patients who are undergoing puberty-blocking treatment; right? 02:20:15
A Correct.
Q You don't know what type of monitoring is typically done or not done for those patients; right? 02:20:28
A That's part of medical practice.
Q That's not your practice; right?
A Correct.
Q Okay. Dr. Cantor, you know what cross-sex hormones are; correct? 02:20:46
A Yes.
Q For transgender women, estrogen is the hormone that's typically prescribed; correct?
MR. BARHAM: Objection as to terminology.
THE WITNESS: Yes. 02:20:55

BY COUNSEL SWAMINATHAN:

Q And for transgender men, testosterone is the hormone that's typically prescribed; correct?

MR. BARHAM: Objection; terminology.

THE WITNESS: Correct. 02:21:07

BY COUNSEL SWAMINATHAN:

Q Have you ever obtained informed consent to provide cross-sex hormones to anyone?

A No.

Q You've never had a patient sign an informed consent form relating to cross-sex hormones; right? 02:21:15

A Correct.

Q Okay. Have you advised patients about potential risks and benefits of cross-sex hormones?

A No, I have not. 02:21:33

Q Okay. Aside from the literature you have reviewed, you personally don't know what doctors tell their patients about cross-sex hormones; right?

MR. BARHAM: Objection as to form and scope.

THE WITNESS: That's not entirely true. For example, people who have detransitioned or people who have transitioned, when it's relevant, you know, will discuss with me conversations that they've had with their physicians. 02:21:55

///

BY COUNSEL SWAMINATHAN:

Q Okay. So your knowledge of what doctors tell their patients about cross-sex hormones comes from what your patients who have detransitioned have told you; is that fair? 02:22:17

A In part. The other sources are the sources that I mentioned earlier, e-mails and other contacts from -- from family members, requests for -- for consultation, media -- and media outlets.

Q Got it. Thank you. Okay. 02:22:34

Did you review --

COUNSEL SWAMINATHAN: Actually, I just want to check in. You're -- are you okay to keep going? But it has been about an hour and ten minutes. If you need a break, that's totally fine. 02:22:44

THE WITNESS: I'm good.

COUNSEL SWAMINATHAN: You're good? Okay.

BY COUNSEL SWAMINATHAN:

Q Did you review the 2017 Endocrine Society guidelines in full before forming your opinions in this case? 02:22:56

A Yes, I have.

Q You have? You've read them from top to bottom as well?

A Yes, I have. 02:23:04

Q When's the last time you've done that?
A Oh. Last week.
Q Last week. And are you aware that the Endocrine Society guidelines recommend treating gender-dysphoric and gender-incongruent adolescents who have entered puberty at Tanner stage II by suppression with gonadotropin-releasing hormone agonists? 02:23:18
A I'm aware that that's in that document, yes.
Q Okay. And if we can take a look back -- I -- I assume you still have your report pulled up. If you can take a look at page 3 of your report. 02:23:30
A I'm there.
Q And you look at paragraph 8, subset (e), you state that (as read): 02:23:59
"Affirmation of a transgender identity in minors who suffer from early-onset or adolescent-onset gender dysphoria is not an accepted 'standard of care.'" 02:24:10
Which is in quotes.
Is that correct?
A That's correct.
Q So this opinion conflicts with the Endocrine Society recommendations; right? 02:24:20

A Yes, it does.
Q And you yourself are not a part of the Endocrine Society; right?
A That is correct.
Q You've never advised the Endocrine Society in any capacity; right? 02:24:31
A That is correct.
Q You personally were not involved with the development of the original Endocrine Society guidelines back in 2009; right? 02:24:47
A Correct.
Q You were not involved with the development of the updated guidelines in 2017; right?
A Correct.
Q Do you know what kind of scientific literature review the Endocrine Society conducted in developing the 2017 updates? 02:24:59
A I'm not aware of its details, no.
Q Are you aware of what kind of outside experts the Endocrine Society may have consulted in developing the 2017 updates? 02:25:16
A I'm aware that they had such people whom they requested, yes.
Q Are you aware of any of these people by name?
A The only one I know by name is from his 02:25:32

involvement in this case, Dr. Jensen.

Q Okay. And you don't hold yourself out as an expert in how the Endocrine Society developed the original 2009 guidelines for treatment of gender dysphoria; right? 02:25:50

A It's a little hard to imagine such a question being used to determine whether a person can be called an expert on -- on anything. That's a very narrow topic. However, there has been systematic evaluation of the Endocrine Society's guidelines. 02:26:08

Q I guess my question is that you don't hold yourself out personally as an expert in how the Endocrine Society developed the original 2009 guidelines; right?

A Yes, that would be true. 02:26:23

Q Okay. And the same -- you don't hold yourself out as an expert in how the Endocrine Society developed the 2017 updates; right?

A That, again, would, I think, be true.

Q Okay. You know what the WPATH is, right, the World Professional Association for Transgender Health? 02:26:40

A Yes, I am.

Q Sorry, yes, you do or yes, you --

A Yes, I am aware. 02:26:54

Q Oh, okay. Do you know that WPATH publishes standards of care for the health of transgender people?

A Yes, I'm aware.

Q Are you aware that WPATH has been publishing these standards since 1979? 02:27:07

A Yes, I am.

Q Okay. To your knowledge, what is the latest standard of care available from WPATH?

A They're in the middle of revising them now. I don't remember the year of the current -- current version, but -- 02:27:21

Q Do you know the number of the current version?

A No. I don't recall. 02:27:33

Q Do you know when the most recent version was published?

A Not without looking it up. I don't remember the year, no.

Q So in your report, you express some opinions about the WPATH Standards of Care; right? 02:27:47

A Correct.

Q Before you wrote this report, did you sit down and review the WPATH Standards of Care?

A Yes. Yes, I did. 02:28:00

Q When did you review them?
A That was now three or four years ago.
Q And have you reviewed all of the articles cited in the "References" section of the WPATH Standards of Care? 02:28:27
A I haven't looked through the reference list to see how many of them I would have read, no.
Q So you haven't reviewed the reference list; right?
A Well, I haven't reviewed the reference list 02:28:37
to see how many of those references I happened to know, no.
Q Okay. And you yourself are not a part of the WPATH; right?
A Correct. 02:28:48
Q Have you ever been a member of WPATH?
A No.
Q Have you ever advised the WPATH in any capacity?
A No. 02:29:01
Q Okay. You personally have not been involved with the development of WPATH Standards of Care, Version 7; right?
A Correct.
Q Okay. Do you know that WPATH is currently 02:29:13

working on Version 8 of their standards of care?
A Yes, I am.
Q You personally have not been involved in the development of WPATH Standards of Care, Version 8; right? 02:29:29
A Correct.
Q And you don't hold yourself out as an expert in how Version 8 is currently being developed; right?
A Again, I hesitate to say that that is a subject in which there exists expertise. It's within my topic of expertise, but I wouldn't say that I am an expert in that topic specifically. 02:29:40
Q Okay. And in this particular case, you're not offering any expert opinions on how Version 8 of the WPATH Standards of Care are currently being developed; right? 02:29:59
A Correct. The comments in my report included evaluation of Version 7.
Q Okay. So, Dr. Cantor, I would love for you to turn to page 16 of your expert report. 02:30:16
A Got it.
Q Great. If you could just have that open.
So do you agree that the number and percentage of prepubertal kids with gender dysphoria 02:30:40

who do not go on to identify as transgender is currently unknown?

A No, I don't think that's exactly fair to say. What --

Q So -- what do you base your opinion -- 02:31:11

MR. BARHAM: I'd ask that -- I'd ask that you allow him to finish his answer before answer- -- asking the next question.

COUNSEL SWAMINATHAN: Apologies, Counsel.

BY COUNSEL SWAMINATHAN: 02:31:20

Q Please finish your answer, Dr. Cantor.

A There have been 11 studies, and all of them show that the large majority cease to want to transition by puberty, but the exact number changes study by study. So I can't say that the number is 02:31:31 known, in that we haven't found the same number coming up over and over again, but it would be unfair to say that, you know, the entire range of possible numbers are equally possible. They're not. The studies have consistently even, even 02:31:46 unanimously, said that it was the large majority desist, but we still can't give a -- a specific number better than a range.

Q So you agree that the number and percentage of prepubertal kids with gender dysphoria who do not 02:32:03

go on to identify as transgender is currently unknown; right?

MR. BARHAM: Objection; asked and answered.

MR. TRYON: Objection.

THE WITNESS: Again, I can't say that there is a specific number, but the range is unanimously, in every single study, the large majority. 02:32:12

BY COUNSEL SWAMINATHAN:

Q And which studies are you referring to?

A There were 11, and they were the -- the 11 studies listed on my blog, which you posted. 02:32:29

Q I think I have maybe shown you two blog posts now. Was it tab 40 -- sorry -- Exhibit 48? Is that the one you're referring to?

A I don't remember the tab number, but only one of those two had a list of studies, and the other was, you know, just text from me. 02:32:45

Q Okay. Do you agree that the number and percentage of adolescents with gender dysphoria who do not go on to identify as transgender is currently unknown? 02:33:00

A That is much less known, correct.

Q Okay. And I take it you are not offering any expert opinions on what number or percentage of adolescents with gender dysphoria do not go on to 02:33:16

identify as transgender; right?
A I don't -- no, I'm not off- -- I'm not offering such a percentage, no. We have -- we don't have the kind of prospective systematic studies to give us a better idea of the range. Instead, we 02:33:37
have studies which retrospectively try to ask questions from these people, but those studies don't give us an estimate of how many people have already desisted and, therefore, never took the questionnaire to begin with. 02:33:53
Q Okay. And, Dr. Cantor, you agree that no study supports the withholding of gender-affirming treatment after the onset of puberty; right?
MR. BARHAM: Objection as to terminology.
THE WITNESS: Could you ask that again, 02:34:11
please?
BY COUNSEL SWAMINATHAN:
Q Sure. You agree that no study supports the withholding of gender-affirming treatment after the onset of puberty; right? 02:34:19
A That no study supports the withholding.
MR. BARHAM: Objection --
THE WITNESS: That's --
MR. BARHAM: Objection as to terminology.
THE WITNESS: That's true in only a very 02:34:37

vacuous way in that that's not how science, never mind medical science, is conducted. In science, we begin with the null hypothesis. Everything starts with a null hypothesis. The onus of proof belongs to the person saying that doing something will do something. It's not possible to prove a null hypothesis. We start with it and wait for proof that doing something has whatever intended effect. 02:35:12

All of that is to say it's not possible to conduct a study that would prove what happens when you do nothing. We start with that point. 02:35:30

BY COUNSEL SWAMINATHAN:

Q So what is the basis for your opinion that it's not possible to prove what the effects of, quote, doing nothing are? 02:35:46

A That's a fundamental tenet of science. That's what I call the -- as I said, that's called the null hypothesis. It's a basic functioning of the scientific process.

Q And so there's -- I'm right, though, that there's no study that has tracked what you call as doing nothing in adolescents who are suffering from gender dysphoria; right? 02:35:58

MR. TRYON: Objection.

THE WITNESS: Correct, there is no such 02:36:17

study.
BY COUNSEL SWAMINATHAN:
Q Okay. You recognize that your theory of withholding social transition to see if prepubertal kids with gender dysphoria desist is an outlier in the scientific community? 02:36:27
MR. BARHAM: Objection as to form and terminology.
THE WITNESS: No, I would not say that at all. 02:36:41
BY COUNSEL SWAMINATHAN:
Q What do you base your -- that answer on?
A I'm in regular contact with a -- with very, very many scientists in my field, and they generally agree with me. It's -- and they generally agree with -- agree with me. It's the outliers who tend to speak most often, loudest and most publicly. So the public mind is very, very different from the collection of scientists. 02:36:51
Q So you said very, very many people agree with you. How many people are you talking about? 02:37:08
A Oh. Several scores. I -- of the ones I interact with, close to a hundred.
Q Can you define score for me?
A 20. 02:37:34

Q So several scores. Would you say 40 to 60 is an accurate capture of how many people you spoke to?
A Probably closer to a hundred.
Q Okay. And who are these hundred people? I'm not asking you to identify all 100 by name, but who, generally, are they? 02:37:54
A Sex researchers and sex therapists.
Q Okay. So beyond the conversations that you had with these scores of individuals, do you have any other basis for believing that practitioners support withholding social transition in prepubertal patients with gender disorder? 02:38:15
MR. BARHAM: Objection as to form and terminology.
THE WITNESS: No. That's my primary source. 02:38:33
BY COUNSEL SWAMINATHAN:
Q And do any of those hundred or so individuals actually treat transgender patients?
A Yes. None of them does it as a specific specialty, but very many of them, of the clinicians among them, have or have had trans clients among their patient base. 02:38:55
Q Okay. Can you please turn to page 18 of your report --
COUNSEL SWAMINATHAN: And, actually, I think 02:39:26

this might be a good time for a five-minute break. I think we've been going for about an hour and 20 minutes now.

Can we go off the record?

THE VIDEOGRAPHER: Yep. We are going off the record and -- at, let's see, 2:39 p.m., and this is the end of Media Unit No. 4. 02:39:34

(Recess.)

THE VIDEOGRAPHER: All right. We are back on the record at 2:53 p.m., and this is the beginning of Media Unit No. 5. 02:53:07

Go ahead, please.

BY COUNSEL SWAMINATHAN:

Q Dr. Cantor, can you please turn to page 12 of your expert report, which is Exhibit 45. 02:53:16

A Got it.

Q Okay. So paragraph 29, on page 12, you state (as read):

"For example, there exist only very few cases of transition regret among adult transitioners, whereas the research has unanimously shown that the majority of children with gender dysphoria desist—that is, cease to experience such dysphoria by or 02:53:48 02:54:01

during puberty."

Did I read that correctly?

A Yes.

Q What is your basis for this assertion?

A The 11 studies that were also cited in my blog. 02:54:16

Q Is there a reason you didn't cite any of those studies here, in your report?

A I didn't include --

Q I just mean in this paragraph, on this page, is there a reason there's no footnotes -- 02:54:35

A Oh, in that paragraph, on that page? No. Only because there was an introductory paragraph, you know, before the rest of the document.

Q And those 11 studies are the -- the same studies that you mentioned before that you said were on your blog? 02:54:52

A Correct.

Q Okay. And on page 18 of your expert report, on -- in paragraph 45 of page 18, you state (as read): 02:55:10

"Because only a minority of gender dysphoric children persist in feeling gender dysphoric in the first place, 'transition-on-demand' 02:55:25

increases the proba-" --
I assume you mean "probability." It says "probably" here.
A Oh, goodness. That's right.
Q That's right? Okay. 02:55:33
(As read):
-- "increases the probability of unnecessary transition and unnecessary medical risks."
Is that fair, as it's read? 02:55:42
A Yes.
Q Okay. What's your basis for this opinion?
A I want to say mathematics.
Q What do you mean by that?
A The -- if only few people regretted 02:56:01
transition, then transitioning everybody would be the wrong decision for only few people. If most people cease to want to transition eventually, then transitioning all of them would be making a much larger number of errors. 02:56:23
Q What do you mean by "transitioning all of them"?
A If the people were given transition on demand.
Q So what do you understand the term 02:56:33

"transition on demand" to mean?

A That we give the person -- we recognize whatever element of that person as soon as they make that request.

Q So I just want to make sure I understand. 02:56:49

You are saying that your opinion for -- or your basis for stating that a minority of gender-dysphoric children persist is based in math; is that correct?

A No. I'm saying that the -- the conclusion 02:57:00 that we will have more errors and make more mistakes if we don't consider that statistic. That's math.

Q I guess I'm understanding what -- or trying to understand, what is the basis for that statistic, that only a minority of gender-dysphoric children 02:57:17 persist?

A Those 11 studies, which were summarized -- which were summarized in my blog, together with the number -- the exact numbers of people who continue to want to transition after puberty and those which 02:57:33 ceased to.

These people only came into the clinics when they started expressing their gender dysphoria. If they were transitioned after that first appointment, because we didn't yet know which ones were going to 02:57:48

persist and which ones were going to desist, then we would only know that if we transi- -- transitioned all of them that first day, most of those would end up being a mistake because we know that most of those will -- will have ceased to want to transition by puberty. 02:58:06

Q And is the reason that you don't state -- sorry, strike that.

To your knowledge, are people being transitioned on the first day? 02:58:20

A Those are the reports that we referred to earlier that there are becoming more and more cases getting reported to me or to the -- or via their families or in the media. Or, as I say, now that there are investigations going on in other countries, that's what they're continuing to find. 02:58:40

Q Okay.

A Transition on demand is the most extreme version of it, but -- but the difference is whether -- the meaningful part is whether these people are being transitioned before a meaningful assessment and a meaningful attempt to -- to estimate who might persist, who might not, or if we're even capable of doing that with enough precision to be risking the kind of medical risks that come into play. 02:58:51 02:59:09

Q Okay. And so, again, you have no direct knowledge of this, but the reports you refer to are the parental anecdotes that are communicated to you, the e-mails that you receive, the government entities putting out information and the news sources that you just mentioned; right?

A We're saying that people are being transitioned on demand, yes.

Q Yes.

A And when I say media reports, those are no longer, necessarily, individual cases. These are also administrators in schools and so on who are indicating what the policies are in that school or parents talking about policies in the -- in social groups and so on. So these are people not going to clinics at all; they're merely being socially transitioned by -- you know, within their social groups.

Q Can you tell me more about those media reports?

You know, you -- you mentioned an example of a school. Can you give me a more detail about that particular report from a school?

A No. I haven't recorded -- I don't recall particulars.

Q Of any of the media reports that you're referencing, you don't recall particulars?
A Not -- not at this time, no. Those, I haven't been accumulating.
Q Okay. Can you please turn to page 27 of your report? 03:00:27
A Got it.
Q Great. And so if you look at paragraph 69, you state the following, quote, (as read):
"...a child experiencing depression from social isolation might develop hope—" -- 03:00:48
A I'm sorry, where did you say you were?
Q Oh, apologies. It's the end of page 26, top of page 27. It's the sentence beginning "For example." 03:01:03
A Got it.
Q Apologies. So let me read that again.
So you state, quote, (as read):
"For example, a child experiencing depression from social isolation might develop hope—and the unrealistic expectation—that transition will help them fit in, this time as and with the other 03:01:13 03:01:27

sex."

Did I read that accurately?

A Yes.

Q So what is the basis of this opinion?

MR. TRYON: This is Dave Tryon. 03:01:37

I'm just going to object that this is one sentence out of an entire paragraph.

COUNSEL SWAMINATHAN: Your objection is noted, Counsel.

BY COUNSEL SWAMINATHAN: 03:01:50

Q Dr. Cantor, you can answer.

A It's an explanation -- I offer it as a possible explanation which accounts for all of the existing observations.

Q Are you aware of any study that shows that a child experiencing depression from social isolation might develop hope and the unrealistic expectation that transition will help them fit in? 03:01:59

A No. That particular hypothesis hasn't been -- hasn't been tested. 03:02:17

Q Have you spoken to anyone about this hypothesis?

A Oh. Yes, relatively and commonly.

Q Okay. Can you please turn to page 53 of your expert report? 03:02:35

A Yes.
Q Great. And so do you see that it's titled "References" at the top of the page?
A Yes.
Q Great. And so pages 53 to 61 of your report includes a list of articles that you cite to in your report, and I've done my best to count them, but there are 106 articles cited in your report. 03:02:56
Do you see that?
A I didn't count them either, but that sounds about right. 03:03:18
Q Okay. How did you find these articles?
A Oh. I've been accumulating these articles throughout my career, starting with my education and the classic -- and the classic articles with them, and then I read new ones as they come out and get discussed within my field. 03:03:33
Q So you found every single one of these articles in your references list. Is that accurate?
A Yes. Yes. Yes, it is. 03:03:47
Q None of these articles were provided to you by some other source?
A Oh. I can't recall if there was a particular e-mail from a colleague who told me, have you seen this or that article. I would -- I can't remember 03:04:03

specifics, but I would not be at all surprised if I received one of these articles as a manuscript, as a peer reviewer, before even it was published.

Also, very commonly in science, it's a scientist spending many, many years releasing study after study, and before the study comes out, there are poster conferences and conference presentations. So I'm aware that they are coming even before -- long before they come in print. 03:04:22

So there are those indirect methods that -- that are possible. 03:04:34

Q But no one sent you any of these articles in connection with your preparation of this report; right?

A No. Yes, that is correct, no one has. 03:04:45

Q Okay. So you said you accumulated this list of articles over the course of your career; right?

A Yes.

Q You've known about the existence of many of these articles well before agreeing to serve as an expert in this case; right? 03:05:02

A Most of them, yes.

Q Most of them.

So when did you begin your research for drafting the expert report, version 2022? 03:05:13

A It would have been within a few days after I first received the -- the request to participate at all.

Q Okay. And so have you read every article included in this list? 03:05:36

A Yes, I have, with the caveat that some of them are standard reference texts where only certain portions of the text are relevant.

Q Okay. And so when you were looking for articles to include in your report, had you already 03:05:53 formed an opinion about whether transgender women and girls have an athletic advantage over cisgender women?

MR. BARHAM: Objection as to scope and terminology. 03:06:05

THE WITNESS: I was already very, very well aware of the state of the literature before I received any notice of this particular case than when I -- so it was on the basis of the knowledge of the literature that I already had that gave me, you 03:06:36 know, some idea of what the liter- -- literature had and then my searching for any other articles, including articles that weren't relevant or weren't part of this particular question that I continued to accumulate, and I found nothing that changed my mind 03:06:59

as I was doing research for this case.
BY COUNSEL SWAMINATHAN:
Q So prior to this case, what -- what was and, I guess, in your testimony now, continues to be your opinion on whether transgender women and girls have an athletic advantage over cisgender women? 03:07:18
A I wasn't --
MR. BARHAM: Objection as to scope.
THE WITNESS: I wasn't asked that question as part of this report. 03:07:28
BY COUNSEL SWAMINATHAN:
Q Do you have any opinion on that question outside of, you know, your involvement in this case?
A Only my other knowledge -- my other knowledge of the studies that had been done on male and female child performance. 03:07:46
Q Do any of these 106 or so articles relate to athletic performance?
A No. I wasn't asked to summarize that part of the literature. 03:08:02
Q Okay. And just to be clear, do you think this list of articles is comprehensive of the existing research on transgender children and adolescents?
A I would say comprehensive in scope and topic, 03:08:15

that is, the range of -- of the facts that are listed -- listed in it, but, again, I wasn't asked to do it specifically on athleticism.

Q Leaving aside athleticism, do you think this list of articles accurately captures the most 03:08:35 reputable studies on transgender children and adolescents?

A Yes, I think that --

MR. TRYON: Objection.

A I think that would be fair to say, yes. 03:08:47

BY COUNSEL SWAMINATHAN:

Q Okay. Do you think these are articles that you have not included in this list that may present data that is contrary to your report?

A No, there isn't. 03:08:58

Q Okay. Do you think there are articles that you have not included in this list that may reach conclusions that are contrary to your report?

A There exists such conclusions, and they've been published. I would have to check to see to 03:09:21 what extent those are merely opinions in -- in letters and commentaries, for example, opposed to derived from -- derived as conclusions from specific data.

Q So your testimony is that there may be some 03:09:40

studies that reach conclusions that are contrary to your report?

MR. BARHAM: Objection as to form and scope.

THE WITNESS: No. The opposite. It's -- I'm not aware of any studies that are based on data that contradict these, although people may have expressed contradictory opinions. 03:09:50

BY COUNSEL SWAMINATHAN:

Q Via letter and commentary; is that correct?

A Correct. 03:10:01

Q Okay. Great.

Can you please turn to page 24 of the same exhibit, so continuing with your report.

A Got it.

Q Great. And so the heading above paragraph 62 of your report -- it starts with the letter "c" -- says, quote, (as read): 03:10:22

"Studies by other clinicians in other countries have failed to reliably replicate the positive components of the results reported by the Dutch clinicians in de Vries et al. 2011." 03:10:39

COUNSEL SWAMINATHAN: And for the court reporter, that's D-E, space, capital V-R-I-E-S. 03:10:49

BY COUNSEL SWAMINATHAN:

Q Do you see that?

A Oh, you're talking to me?

Yes, I do.

Q I'm sorry. Yes. 03:10:59

What did you mean by this?

A Exactly what it says. There was initially some research demonstrating improvement among these kids after transition, but when other countries and other facilities tried to do it, they were unable to 03:11:17 replicate those results. They were not finding improvement.

Q So what are the positive components of the results reported by the Dutch clinicians in de Vries, et al., 2011? 03:11:33

A They reported some improvements in some psychological parameters and social function.

Q Any other positive components?

A I would have to reread the original to see if that's an exhaustive list, but they were essentially 03:11:46 all of those.

Q Are you aware that there are additional scientific peer-reviewed studies showing the positive effects of gender-affirming care?

A Yes, there are. 03:12:00

Q Okay. So are you aware of the 2022 Tordoff, et al., study titled "Mental Health Outcomes in Transgender and Nonbinary Youths Receiving Gender-Affirming Care"?

A Yes, I am. 03:12:17

COUNSEL SWAMINATHAN: Okay. I'm going to introduce tab 8, which has been marked as Exhibit 50.

(Exhibit 50 was marked for identification by the court reporter and is attached hereto.) 03:12:45

BY COUNSEL SWAMINATHAN:

Q Let me know when you're able to see it, Dr. Cantor.

A I am.

Q Okay. Great. 03:12:54

And you can see at the top that this study was conducted by Diana Tordoff, Jonathon Wanta, Arin Collin, Cesalie Stepney, David Inwards-Breland, and Kim Ahrens; is that correct?

A Yes, that's what I see. 03:13:13

Q Are you familiar with any of these people?

A No, I'm not.

Q You don't have any personal connections to any of these people; right?

A Correct. 03:13:26

Q Okay. Do you agree that the Journal of American Medical Association is a highly respected publication?

A That's not this journal.

Q Oh, apologies. The JAMA Network. 03:13:39

Do you agree that the JAMA Network is a highly respected entity?

A No, it is not. It's relying on the fame of JAMA itself.

Q It's relying on the fame of what? I apologize. 03:13:55

A JAMA, the Journal of the American Medical Association. This is an online offshoot of that.

Q Okay. And you don't know whether these researchers are highly respected researchers in the field, right, because you don't know who they are? 03:14:04

A Correct.

Q Okay. Do you know whether this particular study is a peer-reviewed publication?

A To the best of my knowledge, it is. 03:14:19

Q Okay. Are you aware that this study found that gender-affirming care was associated with 60 percent lower odds of moderate or severe depression and 73 percent lower odds of suicidality over a 12-month follow-up? 03:14:37

A Not in the way that you said you were going to use the meaning of the word "care," no.

Q So what -- what did you understand this study to find in the way that you would identify care?

A Well, these kids were -- were receiving medical care, and 65 percent of them were also receiving psychotherapy at the same time. 03:14:53

Q So for purposes of the question I'm asking you, can you understand gender-affirming care to include psychotherapy and medical care? Is that fair? 03:15:09

A For the purpose of this question? Sure.

MR. BARHAM: Objection to terminology.

BY COUNSEL SWAMINATHAN:

Q Let me repeat my question, then. 03:15:16

Are you aware that this study found that gender-affirming care, both psychotherapy and medical care, was associated with 60 percent lower odds of moderate or severe depression and 73 percent lower odds of suicidality over a 12-month follow-up? 03:15:29

A I'm aware that that was their conclusion, yes.

Q Okay. And at the time you authored your report, were you aware of those studies?

A No. It had not yet come out. 03:15:43

Q Okay. And are you aware of the 2021 Green, et al., study titled "Association of Gender-Affirming Hormone Therapy With Depression, Thoughts of Suicide, and Attempted Suicide Among Transgender and Nonbinary Youth"? 03:16:01

A Yes, I am.

Q Great.

COUNSEL SWAMINATHAN: I'm going to introduce tab 9, which is going to be marked as Exhibit 51.

It should pop up on your screen shortly. 03:16:19

(Exhibit 51 was marked for identification by the court reporter and is attached hereto.)

BY COUNSEL SWAMINATHAN:

Q And as you pull that up, Dr. Cantor, I just want to confirm, did you identify the Tordoff study as a part of your continued update to the literature that you were doing before sitting for this deposition? 03:16:37

A Well, as I say, that -- that study only just came out. It -- it wasn't available when I submitted my study. And then I became notified of its existence, you know, when it did -- first came out, but my -- but my -- I shouldn't have said "study." Report. I'm sorry. But my report was already submitted when it did come out. So -- 03:16:58 03:17:12

Q I -- I --
A -- had my report been due in six months, it would have been edited.
Q I understand that. I just meant in the review that you said you did in preparing for this deposition, was this one of the studies that you had reviewed prior to sitting for this deposition? 03:17:21
A The Green study?
Q The Tordoff study.
A Oh, the -- the Tordoff study? 03:17:33
Again, didn't exist when I prepared.
Q Okay. So it's -- it didn't exist in the past few weeks?
A The --
Q Tordoff study. 03:17:43
A When you said in preparation, do you mean for sitting here physically today, or do you mean for my submitted report?
Q I mean for sitting here physically today.
A For sitting here physically today, I did -- I did review Tordoff, yes. 03:17:54
Q Got it. Okay. Thank you.
And now we can turn our attention to the 2021 Green study, and as you can see, the authors of this study are Amy Green, Jonah DeChants, Myeshia Price 03:18:13

and Carrie Davis.

Do you see that?

A Yes, I do.

Q Are you familiar with any of these individuals? 03:18:27

A Not meaningfully. Myeshia Price, I think I had a three e-mail exchange with a few years ago. Nothing substantive or relevant to today's case.

Q Your e-mails did not pertain to transgender people or gender dysphoria at all? 03:18:47

A They did pertain to transgender individuals, not athleticism, not today's case, but I couldn't -- I don't recall what aspects of gender dysphoria the discussion was.

Q Do you remember if the discussion was focused on adults suffering from gender dysphoria? 03:19:05

A I don't recall.

Q Okay. That's fair.

And so do you see that the study was published -- or accepted on October 28, 2021? And do you agree that the Journal of Adolescent Health is a highly respected publication? 03:19:19

A Yes, to the best of my knowledge.

Q Is it a peer-reviewed publication?

A So far as I know. 03:19:36

Q So are you aware that this study found that access to gender-affirming hormones during adolescence was associated with lower odds of recent depression and having attempted suicide in the past year? 03:19:55

A In a retrospective survey, I'm aware of that, yes.

Q Yes. At the time you authored your report, were you aware of this study?

A Yes, I was. 03:20:02

Q Did you cite this study in your report?

A No, I did not.

Q Why didn't you cite this Green 2021 study in your report?

A It's not -- it's not methodologically sound enough. This was a retrospective instead of a prospective study. Retrospective studies are not able to come to the kind of conclusions that -- that are not -- retrospective studies are only able to produce correlations. We cannot, from a correlation, say anything about causality. 03:20:16 03:20:38

Q Do you cite any retrospective studies in your report?

A I would have to go through and check.

Q Off the top of your head, can you think of 03:20:59

any retrospective studies you may have cited in your report?

A I can't think of one offhand, no.

Q Were any of the 11 studies that you mentioned that support your theory of desistance retrospective studies? 03:21:17

A No. It was -- specifically was of prospective studies.

Q Okay. And so it's your testimony that none of the studies that you've cited in your report are retrospective; right? 03:21:31

MR. BARHAM: Objection as to form and terminology.

THE WITNESS: No. I just can't recall offhand if any were. 03:21:41

BY COUNSEL SWAMINATHAN:

Q So there may be some retrospective studies that you rely on in drafting your report?

MR. TRYON: Objection.

THE WITNESS: Yes. But not from making a causal conclusion. 03:21:51

BY COUNSEL SWAMINATHAN:

Q Okay. And are you aware of the 2012 Achille, et al., study titled "Longitudinal impact of gender-affirming endocrine intervention on the 03:22:06

mental health and well-being of transgender youths"?

A Yes, I am. It's cited in my report.

Q Great. Would --

COUNSEL SWAMINATHAN: I'm going to introduce tab 10, which I believe now marks Exhibit 52. 03:22:21

(Exhibit 52 was marked for identification by the court reporter and is attached hereto.)

BY COUNSEL SWAMINATHAN:

Q And let me know when you're able to see it, Dr. Cantor. 03:22:52

A Yes, I can see.

Q Okay. Great.

So this study is published in the International Journal of Pediatric Endocrinology; correct? 03:23:14

A Yes, it is.

Q And is -- the authors are Chris- -- Christal Achille -- I apologize if I'm mispronouncing that -- Tenille Taggart, Nicholas Eaton, Jennifer Osipoff, Kimberly Tafuri, Andrew 03:23:15 Lane and Thomas Wilson.

Do you see that?

A Yes, I do.

Q Are you familiar with any of these individuals? 03:23:37

A No, I'm not.
Q Okay. And it looks like this study was conducted in 2020, at some point. I don't see the date on it.
But is it fair to say that it was -- it came out in 2020? 03:23:54
A The -- the study was conducted between 2013 and 2018.
Q But the results were published, apologies, in 2020? 03:24:08
A It came out in print in 2020.
Q Okay. And have you read this study before?
A Yes, I have.
Q And are you aware that is study found that endocrine intervention was associated with decreased depression and suicidal ideation and improved quality of life for transgender youth? 03:24:23
A I'm aware that that's what the paper said, yes.
Q And at the time you authored your report, were you aware of this study? 03:24:33
A Yes, I was.
Q And you cite this study in your report; right?
A Correct. 03:24:43

Q Why didn't you cite this particular conclusion drawn from the study, that the endocrine intervention was associated with decreased depression and suicidal ideation and improved quality of life for transgender youth? 03:25:00

A Because the improvements are also plausibly attributed -- attributable to the psychotherapy that the clients were -- that the patients were getting.

Q But, Dr. Cantor, isn't it true that no study, including the Dutch study, had a control group of people who received solely therapy, but no blockers or hormones? 03:25:17

A That is not correct.

Q Which -- can you tell me what study has a control group of people who received therapy, but no blockers and hormones? 03:25:29

A Costa, et al., 2015.

Q Can you spell that for the court reporter?

A C-O-S-T-A --

Q Uh-huh. 03:25:37

A -- et al.

Q 2015?

A Yes.

Q Am I accurate in saying that the Dutch protocol did not have a control group of people who 03:25:49

received therapy, but no blockers and hormones?
A That is correct.
Q And so would you agree that this Achille study is similarly situated to the Dutch protocol, in terms of what -- in terms of the two 03:26:07
interventions, both psychotherapy and hormone treatment, occurring at the same time? Is that fair to say?
A No, it's not. The research method being used is not related to the clinical method being used. 03:26:23
The research method is how one analyzes what's been doing clinically.
Q Okay. So you mentioned that Costa, et al., 2015, does have a control group. Are there any other studies that you can think of? 03:26:40
A No, not offhand.
Q Okay. And are you aware of the 2020 Kuper, et al., study titled "Body Dissatisfaction and Mental Health Outcomes of Youth on Gender-Affirming Hormone Therapy"? 03:27:04
A I believe that one's in my report also.
Can I refer to it just a second?
Q Absolutely.
COUNSEL SWAMINATHAN: I will introduce it as tab 11, which is Exhibit 53. 03:27:16

(Exhibit 53 was marked for identification by the court reporter and is attached hereto.)

THE WITNESS: Oh, no, I meant my report.

BY COUNSEL SWAMINATHAN:

Q Oh, sure. Feel free to reference your report. 03:27:20

Do you see Exhibit 53, in the share?

MR. BARHAM: Counsel, the witness is still looking at his expert report, I see.

COUNSEL SWAMINATHAN: Oh, apologies. I'm unable to see his hands by the -- 03:28:08

MR. BARHAM: It's okay.

THE WITNESS: All right. Got it. Okay. Ready. Yes, Kuper.

BY COUNSEL SWAMINATHAN: 03:28:19

Q No problem.

So, again -- so this study is conducted by Laura Kuper, Sunita Stewart, Stephanie Preston, May Lau and Ximena Lopez.

Do you see that? 03:28:33

A One second. We need to switch windows.

Q No problem.

A Yes, I have it.

Q Okay. Are you familiar with any of those individuals? 03:29:00

A No, I am not.
Q And so this study was downloaded from the American Academy of Pediatrics; is that correct?
You can see that --
A It was published in the journal Pediatrics which is owned by the American Association of Pediatrics. 03:29:25
Q Yes, apologies.
I was just pointing towards the bottom of the page where it says this particular article was downloaded from www.aappublications.org/news, and it was accepted for publication on December 6, 2019. 03:29:35
Do you see that?
A Yes, I do.
Q Okay. Is this a peer-reviewed publication? 03:29:55
A Yes, it is.
Q Okay. And are you aware that the results of this study show that hormone therapy for youth is associated with reducing body dissatisfaction and modest improvements in mental health? 03:30:09
A That's not what I would call the whole truth.
Q What would you call the whole truth?
A That this group of patients were -- were given many, many different mental health factors. The majority of those showed no differences, but the 03:30:30

report and the media reports about this are only talking about the positive ones, despite that there was no difference -- that there was generally no difference.

Q You said that this study has faced media criticisms. Is that fair? 03:30:42

A Media attention, I would say.

Q Media attention.

What outlets of media have reported that there were no positive results from this study? 03:30:57

A I didn't say that there were media reports saying no positive results. The reverse. The media had been reporting only the positive results.

Q So there were positive results as a result of this study; right? 03:31:14

MR. TRYON: Objection.

THE WITNESS: Some of the measures indicated positive results, but when one -- when one runs many, many, many statistical tests, some of them will always look like they're positive. 03:31:26

BY COUNSEL SWAMINATHAN:

Q I see. But it's fair to say that there were positive results reported from the study; right?

A No, I'm not sure that is fair to say. As I say, it's a statistical property that if you roll 03:31:42

the dice enough times, you will eventually get snake eyes. If you only report the snake eyes and fail to report everything else, it's not fair to say that you actually caused snake eyes.

Q Dr. Cantor, so it's your testimony today that there are no positive results from this Kuper 2020, et al., study? 03:31:58

MR. BARHAM: Objection as to form.

THE WITNESS: No, that's not my testimony either. 03:32:10

BY COUNSEL SWAMINATHAN:

Q So your testimony is what, that there -- you just --

A The positive results they found are easily attributable to a statistical fluke or game plan rather than an actual reflection of changes in the actual age and groups. 03:32:19

Q Okay. So that method also applies to studies showing negative reports; right?

A The principle applies to -- no, it does not. The problem of false positives only applies to positive results. 03:32:38

Q Interesting. So it then isn't true for the negative results of other studies, but it only applies to the false positives. Is that your 03:32:59

testimony?
A Not exactly. I think we're using the word "negative" in different ways.
Q Okay.
A In statistics, the word "negative" means we didn't find anything. Everything stays flat. Everything remains exactly where it was. 03:33:11
I'm wondering if you're using the word "negative" to mean unfortunate or deleterious.
Q No, I think -- I think I -- I understand your -- the way you've been using "negative," so -- 03:33:25
A Okay. In statistics, it is indeed true that the methods used to find positive results are different from the ones that we use for analyzing negative results. They are not equal. 03:33:38
Q Okay. And are you aware of the 2020 van der Miesen, et al., study titled "Psychological Functioning in Transgender Adolescents Before and After Gender-Affirmative Care Compared With Cisgender General Population Peers"? 03:33:58
A Yes, I am. It also is in my report.
COUNSEL SWAMINATHAN: I'm going to introduce tab 12, which will be Exhibit 54.
(Exhibit 54 was marked for identification by the court reporter and is attached hereto.) 03:34:06

THE WITNESS: Hang on. If I can just refer to my report again for the van der Miesen section.
BY COUNSEL SWAMINATHAN:
Q No problem. I can speed it up for you and say that you have cited this report on page 25 and 26. 03:34:19
A Perfect. Thank you.
Q No problem.
Just a -- one more question regarding the -- the statistics we were just talking about. So -- 03:34:37
A One second.
Okay. I'm ready.
Q Is your -- is it your understanding that data can be skewed or explained by alternate causation in all of these studies? 03:34:59
A I don't think you're using the word "skew" the way we use it in statistics.
Can you phrase the question a different way?
Q Sure. Isn't it possible that data can be represented or explained by alternative causation in all of these studies? 03:35:19
MR. TRYON: Objection; form of the question.
THE WITNESS: I don't know what you mean by alternative causality, was it, you said?
///

BY COUNSEL SWAMINATHAN:

Q Yeah, of -- you know, you said earlier that, you know, there -- there are alternate reasons for why some studies -- some of the results of certain studies may be misrepresented in how the results are presented; right? 03:35:46

A Some people will cherry-pick which results they report, yes.

Q Right. And so are you saying that, you know, if you roll the dice enough times, you can get results that you want and that's what some of these researches have done? 03:36:02

A Yes, that's true.

Q Yeah. And isn't that true that that's a possibility for all studies? 03:36:20

A Yes, it is.

MR. TRYON: Objection.

BY COUNSEL SWAMINATHAN:

Q Okay.

A Yes, it is. And in figuring out what the probability of that happening is for any particular study is itself an important branch of statistics. 03:36:26

Q And so I think you have Exhibit 54 up, is that correct, the van der Miesen study?

A Yes. 03:36:49

Q Great. So this study was conducted -- or it looks like it was a team of van der Miesen, Steensma, de Vries, Bos and Popma, is that correct, as the -- the authors of this study?
A Yes, it is. 03:37:13
Q Okay. And do you know any of these folks?
A No. I've never met anybody.
Q Okay. And so this study was published in 2020 in the Journal of Adolescent Health; is that right? 03:37:27
A Yes, it is.
Q And are you aware that the results of this study showed fewer emotional and behavioral problems after puberty suppression and similar or fewer problems compared to same-age cisgender peers? 03:37:38
A Yes, I am.
Q Okay. And at the time you authored your report, were you aware of this study?
A Yes, I was. It's referenced in it.
Q Did you reference this finding in your report? 03:37:56
A I -- I referenced the finding and also then -- the people in this clinic also received psychotherapy along with their medical care.
Q Similar to the Dutch study; right? 03:38:10

A This is one of the Dutch studies.
Q This is a later version; correct?
A That's right.
Q 2020.
And are you -- actually, we -- we just spoke about the 2015 Costa, et al., article; right? So I assume you are familiar with "Psychological Support, Puberty Suppression and Psychosocial Functioning in Adolescents with Gender Dysphoria"? 03:38:24
A That is correct. 03:38:40
Q Okay.
COUNSEL SWAMINATHAN: I'm going to introduce tab 13, which will be marked as Exhibit 55.
(Exhibit 55 was marked for identification by the court reporter and is attached hereto.) 03:38:44
BY COUNSEL SWAMINATHAN:
Q And I'll represent to you that you do cite this study as well in your report, on page 22, if -- if you would like to reference that, but I won't be referring to your report in asking my questions. 03:39:11
MR. BARHAM: Do you want the report?
THE WITNESS: No. I'm fine with this.
I see it.
BY COUNSEL SWAMINATHAN:
Q Great. And so let's look at the authors of 03:39:21

this study. It's Rosalia Costa, Michael Dunsford, Elin Skagerberg, Victoria Holt, Polly Carmichael and Marco Colizzi.

Do you see that?

A Yes, I do. 03:39:40

Q Do you know any of these folks?

A No, I don't.

Q Okay. And this study was published in the Journal of Sexual Medicine; is that correct?

A Yes, it is. 03:39:48

Q Do you agree that the Journal of Sexual Medicine is a highly respected publication?

A No, I don't.

Q Why do you disagree?

A I had interactions with not the current editor, but the prior editor of the journal. Together with reviews and instructions to peer reviewers, he asked specifically that authors increase the number of papers citing that particular journal and manuscripts sent to that journal which would elevate that journal's -- it's called an impact factor. The number of citations to studies in it is a measure of how important the journal is. 03:40:08 03:40:28

So the prior editor was trying to gain the system. So at that point, I refused any further 03:40:45

contact with the -- with the journal itself or that editor.

As I said, there's a new editor. I have had some contact with -- with the new editor, who no longer participates in that policy, but I remain rather skeptical of the journal itself. 03:40:52

Q Have you ever submitted any of your studies to be published in the Journal of Sexual Medicine?

A I don't recall. If I did, it would have been one soon after the journal started. 03:41:18

Q Okay. And is this Journal of Sexual Medicine a peer-reviewed publication?

A Yes, it is.

Q And are you aware that the results of this study found increased psychological function after six months of puberty suppression in adolescents with gender dysphoria? 03:41:36

A I'm aware that that's what it reported.

Q Did you include that finding in your report?

A Yes, I did, together with the caveat that becau- -- that they were also receiving mental healthcare at the same time. 03:41:51

This -- this paper didn't have a medical care -- medical care only.

Q Okay. And are you aware of the 2014 03:42:07

de Vries, et al., study titled "Young Adult Psychological Outcome After Puberty Suppression and Gender Reassignment"?

A Yes, I am.

COUNSEL SWAMINATHAN: I'm going to introduce tab 14, which will be marked as Exhibit 56. 03:42:25

(Exhibit 56 was marked for identification by the court reporter and is attached hereto.)

THE WITNESS: I have it.

BY COUNSEL SWAMINATHAN: 03:42:50

Q Great. And so let's look at the authors. There's Annelou de Vries, Jenifer McGuire, Thomas Steensma, Eva Wagenaar, Theo Doreleijers and Peggy Cohen-Kettenis.

Do you see that? 03:43:11

A Yes, I do.

Q Are you familiar with any of these folks?

A By reputation only.

Q Who are you familiar with by reputation?

A De Vries, because of the number of studies that -- that they've been involved with, and Dr. Cohen-Kettenis with her -- through her association with Dr. Zucker. 03:43:21

Q Have you met either de Vries or Cohen-Kettenis before? 03:43:36

A No, I have not.
Q Have you communicated with them via e-mail?
A No, I have not.
Q Or by phone?
A No. 03:43:45
Q Okay. And so this study was accepted for publication on July 7th, 2014, and it's published in the Pediatrics journal that we just referred to earlier.
Are you aware that this study followed a 03:44:02
cohort of transgender young people in the Netherlands, from puberty suppression through surgical treatment?
A Yes, I am.
Q And, in fact, these are some of the same 03:44:12
authors who wrote the Dutch study that you described, in great length, in your report; right?
A This is indeed the Dutch team, and it was on the basis of these results that they began forming what we're now calling the Dutch model. 03:44:30
Q And are you aware that this study found that the cohort had global functioning that was equivalent to the Dutch population?
A Yes, I am.
Q And you included this study in your report; 03:44:44

right?
A Yes, I did.
Q And did you take similar issue with the fact that this study did not have a control of folks who received psychotherapy only? 03:44:57
A The issue wasn't that it lacked a group of psychotherapy only; the problem is that the study had no method of separating how much of its result was due to psychotherapy versus due to medical intervention. 03:45:27
Q And that's typically done using a control group, though; right?
A That's one of the ways to do that, yes.
Q What are some of the other ways to do that?
A It's an advanced statistical technique called "allocation of variance," essentially. 03:45:38
Q Okay.
A Or there's a better term. I'll get it. "Covariance analysis."
Q Covariance analysis. 03:45:57
And so is it fair to say that the positive findings of the Dutch study have indeed been replicated?
A No, not meaningfully.
Q What is the difference between having been 03:46:19

replicated and having been replicated meaningfully?
A Other studies that have attempted to replicate it have changed parts of the protocol in one way or another or changed the ways that they measure the outcomes in order to make direct comparison difficult. 03:46:40
Q So the de -- de Vries, as you pronounced it, 2014 study, in your opinion, did not replicate the positive findings of the Dutch study?
A De Vries, 2014, is the Dutch study. 03:46:57
Q This is -- so I believe we're talking about several Dutch studies at this -- at this point.
So you had testified earlier that, I believe, the Dutch study was replicated in 2020 as well; is that correct? 03:47:21
A Are you referring to the van der Miesen study?
Q I am, yes.
A No. The van der Miesen 2020 study, from the Dutch group, would not be fairly called a replication of their own 2011 and 2014 studies. 03:47:46
Q So why isn't it a fair replication?
A It's a different patient sample approaching the clinics now than in the years when -- when the first studies came out. 03:48:08

Q What would you say the primary difference in the patiel -- patient sample is?
A The psychological profiles, their ages, their sex ratios.
Q Any other differences? 03:48:22
A Those are the major ones.
Q Okay.
COUNSEL SWAMINATHAN: So I'm going to introduce tab 15, which has been marked as Exhibit 57. 03:48:37
(Exhibit 57 was marked for identification by the court reporter and is attached hereto.)
BY COUNSEL SWAMINATHAN:
Q Let me know when you're able to access it, please. 03:49:24
A Yes, I have it now.
Q Great. And so this is the 2011 Dhejne study; correct?
A It's Swedish.
Q How would you pronounce that? 03:49:39
A Oh, oh, oh, you mean the -- the author's name. I'm sorry. You said "Dane," and my brain registered Danish.
Q No.
A Actually, I don't know how to pronounce this 03:49:49

author's name.

Q I've heard "Dhejne" for "Dhejne," so I'm going to go with "Dhejne" today.

But do you see that this study was conducted by Cecilia Dhejne, Paul Lichtenstein, Marcus Boman, Anna Johansson, Niklas Långström and Mikael Landén? 03:50:01

Do you see that?

A Yes.

Q And it's titled "Long-Term Follow-Up of Transsexual Persons Undergoing Sex Reassignment Surgery: Cohort Study in Sweden." 03:50:13

Did I read that correctly?

A Yes.

Q You cite this study in your report; correct?

A Yes, I believe I do. Let me just refer to my own report with context. 03:50:26

Do you have the page number offhand.

Q I do. It's page 5 of your report.

A Thank you.

Yes, ready. 03:51:10

Q So one of the points for which you cite this study is to say that Swedish patients who underwent gender-affirming firming surgery had a 19.1 times greater suicide rate than the control group; right?

A Yes. 03:51:30

Q Okay. Beyond the Dhejne study, are you aware of any other authority for that claim?
A Not offhand, no.
Q Okay. And who is the control group for the Dhejne study? 03:51:45
A The Danish population, average.
Q And you understand that the control group consisted of patients without gender dysphoria; right?
A Yes. 03:51:58
Q Okay. So what this Dhejne study compared was the suicide rate for patients who underwent gender-affirming surgery against the general Swedish population; right?
A Correct. 03:52:12
Q Okay. And the suicide rate for patients who underwent gender-affirming surgery was not compared against patients who were transgender, but had no access to medical care; right?
A Correct. 03:52:27
Q Okay. So no one in the control group was transgender; right?
A There's no way to say that. I would hesitate to call the remain- -- the demographics of the remaining population a control group. They didn't 03:52:42

exactly participate at all except via government statistic.

Q And they were ten randomly selected control persons who were matched by sex and birth year; right? 03:52:57

A I would have to recheck the original study for the details, but that sounds about correct.

Q Okay. You know that there are studies that find that patients with gender dysphoria who don't undergo gender-affirming surgery have a higher risk 03:53:08 of suicide compared to the general population. Are you aware of that?

A Yes, I am.

Q Okay. If you could please turn to page 7 of this study. 03:53:22

A Yes.

Q And the font size is quite small, but if you look at the left side of the page and the third full paragraph in that left column, it starts with "For the purpose of evaluating." 03:53:45

Can you take a moment to read that paragraph, please?

A Yes.

Q So the authors recognize that persons with gender dysphoria before sex reassignment may differ 03:54:26

from control patients who do not have gender dysphoria; right?

A I'm sorry, say that again.

Q Sure. The authors of this study recognize that people with gender dysphoria before sex reassignment may differ from control patients who do not have gender dysphoria; right? 03:54:39

A That is correct.

Q They say "In other words" -- this is a quote directly from the study (as read): 03:54:55

"In other words, the results should not be interpreted such as sex reassignment per se increases morbidity and mortality."

Do you see that? 03:55:05

A Yes, I do.

Q You agree that this study does not support the conclusion that sex reassignment by itself increases the risk of suicide; right?

A That would be a bizarre conclusion, correct. 03:55:19

Q Okay. And this study does not support the conclusion that sex reassignment by itself increases risk of other morbidities; right?

A I'm sorry, ask that again.

Q Sure. This study does not support the 03:55:36

conclusion that sex reassignment by itself increases risks of other morbidities; right?

A By itself, no.

Q Okay. And the authors even go on to say "Things might have been even worse without sex reassignment." 03:55:54

Do you see that?

A Yes, I do.

Q Okay.

COUNSEL SWAMINATHAN: And I'm going to introduce tab 16, which has been marked as Exhibit 58. 03:56:05

(Exhibit 58 was marked for identification by the court reporter and is attached hereto.)

THE WITNESS: I have it. 03:56:40

BY COUNSEL SWAMINATHAN:

Q Great. And so I believe we referenced this study earlier in our conversation. This is a study titled "Mental Health of Transgender Children Who Are Supported in Their Identities," and the authors are Kristina Olson, Lily Durwood, Madeleine DeMeules and Katie McLaughlin. 03:56:52

Do you see that?

A Yes, I do.

Q Are you familiar with any of these authors? 03:57:02

A No, I am not.
Q Do you recognize this study?
A By title, I do. For content, I need to check my report again.
Q Okay. I'll represent to you that you do cite this study in your report, and if helpful, I can point you to the paragraph number. It's paragraph -- 03:57:18
A Okay.
Q -- paragraph 15 of your report. And I'll get the page number for you. Pages 5 to 6 of your report. 03:57:32
A Hold on.
Yeah, I have it.
Q Great. And so in paragraph 15 of your report, you state, quote, (as read): 03:57:59
"Olson's report turned out to be incorrect. The Olson data were reanalyzed and after correcting for statistical errors in the original analysis, the data instead showed that the gender dysphoric children under Olson's care did, in fact, exhibit significantly lower mental health." 03:58:08 03:58:20

And the cite you have for -- for that statement is "Schumm & Crawford, 2020: Schumm, et al., 2019."

Did I read that accurately?

A Yes, that's correct. 03:58:34

Q Okay. And so is it your understanding that the Olson data was reanalyzed by Schumm and Crawford?

A Yes.

Q Have you independently conducted your own statistical analysis of the Olson data? 03:58:47

A No, I have not.

Q Okay. Have you asked any other statistician's opinion on whether Olson's statistical analysis was wrong? 03:59:02

A No, I have not.

Q Okay. Do you know if Schumm's statistical analysis has ever been questioned in a court of law?

A Not that I know of, no.

Q Okay. 03:59:19

COUNSEL SWAMINATHAN: So I'm going to introduce tab 17, which will be marked as Exhibit 59.

(Exhibit 59 was marked for identification by the court reporter and is attached hereto.) 04:00:02

BY COUNSEL SWAMINATHAN:

Q Let me know when you're able to see it.

A I can see it.

Q Great. And so I'll represent to you that this is a copy of an opinion from the District Court of Appeal of Florida, Third District, and the title of the case is Florida Department of Children and Families, Appellant, versus Adoption of -- in re Matter of Adoption of X.X.G. and N.R.G., Appellees. 04:00:11

Do you see that? 04:00:29

A Yes, I do.

Q Are you familiar with this case?

A No, I am not.

Q You don't know what it's about; right?

A Correct. 04:00:44

Q Okay. I'll represent to you that in this case, Dr. Schumm conducted a methodological analysis of the works of psychologists on homosexual parenting. So this is a case about the adoption of children by a gay parent. And I'll -- I'll make 04:00:57 that representation to you, but also please feel free to review the document in further detail, if you -- if you need to. But if not, I would like to turn your attention to pages 7 and 8 of the PDF. Start on page 7: 04:01:12

A I'm there.
Q Great. And so if you could read from "We consider first the Department's experts." If you could read that paragraph and let me know when you are done. 04:01:46
A Just the one paragraph on that page?
Q Yes. Just on that page. I just want you to have the understanding that Dr. Schumm was one of the department's witnesses in this case.
And then if you turn to the next page, 04:02:06
page 8. If you can read the paragraph -- it's a lengthy paragraph -- on the left-hand side of the page, along with the final paragraph at the bottom, and let me know when you're finished with that, that would be great. 04:02:26
A Okay.
Q Okay. And so what you just read, it states the following (as read):
"Dr. Schumm admitted that he applies statistical standards that depart 04:03:34
from conventions in the field. In fact, Dr. Cochran and Dr. Lamb testified that Dr. Schumm's statistical re-analysis contained a number of fundamental errors. 04:03:43

Dr. Schumm ultimately concluded that based on his re-analysis of the data, there are statistically significant differences between children of gay and lesbian parents as compared to children of heterosexual parents. Dr. Schumm understands that much of the scientific community disagrees with his conclusions and concedes to the possibility that some gay parents may be beneficial to some children."

Did I read this correctly?

A Yes, as best I can see. 04:03:54 04:04:01

Q Had you previously been aware that Dr. Schumm admitted in a court of law that he applies statistical standards that depart from conventions in the field? 04:04:12

A I'm sorry, is that what I read?

Q You can see it says "Dr. Schumm admitted that he applies statistical standards that depart from conventions in the field," in the middle of page 8. 04:04:27

A Yes, I see it.

Q If you had known this information, would that have affected your thinking about whether Schumm was 04:04:45

a reliable source for the reanalysis of the Olson data?

A No, I don't think so.

Q Why not?

A Because of the lack of the response from the original team that he commented on. 04:04:59

Q What do you mean by that?

A Olson never replied to Schumm's correction, and Schumm's correction, in this instance, was published, unlike what's being described in the case you just put before me. 04:05:15

Q And are you aware that there was a correction issued for the 2016 Olson article?

A Yes, I am.

COUNSEL SWAMINATHAN: I'm going to introduce tab 18, which will be marked as Exhibit 60. 04:05:28

(Exhibit 60 was marked for identification by the court reporter and is attached hereto.)

BY COUNSEL SWAMINATHAN:

Q Let me know when you have the document up. 04:05:58

A I do.

Q Okay. So I'm going to represent to you that this is an errata of the Olson 2016 "Mental Health of Transgender Children Who Are Supported in Their Identities," and this errata was published in 04:06:08

August 2018, as you can see at the bottom of the page.

A Yes.

Q So if you read the second paragraph on that page, the only correcting to the article was a missing comma, not any changes to the statistics in the Olson analysis; correct? 04:06:26

A Correct.

Q And I'm going to ask you to look back at what was previously marked as Exhibit 44 -- sorry -- Exhibit 45, which is your report, again, and if you could please turn to page 6. 04:06:38

A Yes.

Q In paragraph 16 of your report, on page 6, you state, quote, (as read): 04:07:09

"I conducted an electronic search of the research literature to identify any responses from the Olson team regarding the Schumm and Crawford re-analysis of the Olson data and was not able to locate any. I contacted Professor Schumm by email on August 22, 2021 to verify that conclusion, to which he wrote there has been: 'No response [from 04:07:20 04:07:34

Olson].'"

End quote.

Did I read that correctly?

A Yes.

Q Did you ever reach out directly to Kristina Olson regarding the results of this study? 04:07:41

A No, I did not.

Q Why not?

A It wasn't pertinent to my analysis. Had she had a response, it should have been published. 04:07:58

Q Did you ever reach out to anyone else on the Olson team regarding the results of this study?

A No, I did not.

Q Okay. Are you aware of the 2021 Gibson, et al., study titled "Evaluation of Anxiety and Depression in a Community Sample of Transgender Youth"? 04:08:12

A Not by title. Did I cite that one?

Q I don't believe you have included this study in your report. 04:08:30

A Okay.

Q But as you said, you may have discovered it in your further research, but I will show it to you so that we are on the same page of what we're talking about. 04:08:42

COUNSEL SWAMINATHAN: So I'm going to introduce tab 19, which will be marked as Exhibit 61.

(Exhibit 61 was marked for identification by the court reporter and is attached hereto.) 04:08:53

BY COUNSEL SWAMINATHAN:

Q Also, while we're waiting for that exhibit to load, is there any reason that you felt the need to reach out to Professor Schumm, but not Kristina Olson, with respect to the Olson study? 04:09:03

A Only that given my known reputation, given that -- the great polarization in the field, I didn't anticipate a cordial or appropriate response from Olson. It didn't seem to be -- there didn't seem to be a point to me. 04:09:30

Q What is your known reputation that you referred to in the field?

A I'm known as highly critical of a lot of the claims that people are making.

Q And is that what leads to what you refer to as the great polarization? 04:09:41

A Leads to, no. I think it's an element of.

Q What are the other elements?

A Well, that the same thing happens to anybody who says anything critical about anybody's thinking 04:09:56

on either side of such questions.

Q How do you know that?

A I'm frequently a target of it. I'm frequently in contact with other targets of it. It has become one of the most frequently discussed issues, not -- in the media and among academics. 04:10:19

Q So what evidence do you have that you are frequently a target of this -- you know, the polarization that you speak of?

A On social media, the way that my views are misrepresented in -- I wouldn't say mainstream media, but in minority media, I'm frequently misrepresented in -- in -- in similar ways. 04:10:31

Q Okay. And so please let me know if Exhibit 61 has entered your file share. 04:10:56

A Yes, I see it.

Q Okay. Great.

So this is a study conducted by Gibson -- Dominic Gibson, Jessica Glazier and Kristina Olson.

Do you see that? 04:11:17

A Yes, I do.

Q And this was a 2021 study.

Do you see that?

At the bottom of the page, you can --

A Yes, I do. 04:11:31

Q Great. And so do you see that Kristina Olson is an author -- one of the authors of this study?
A Yes, I see.
Q And you told me that you had not seen this study before; correct? 04:11:48
A Correct.
Q So I want to give you a second to review the introduction and perhaps the -- the first page, as much --
A Okay. Give me a moment. 04:12:10
Q Absolutely.
A Yes.
Q Great. So as you can see, this study has a bigger sample size than the 2016 Olson study; correct? 04:14:12
A Yes.
Q And you said you were not aware of this more recent study at the time you authored your report; right?
A I would hesitate to say that I was unaware entirely, but at least when I was going through the literature, it did not fit what I thought was relevant, so I passed it by. 04:14:18
Q Why didn't you think this study was relevant?
A Oh, I thought -- as I said, I imagine in the 04:14:36

mindset then, I still didn't see how it was relevant -- still don't see exactly how it was relevant or would add anything above the studies I already cited.

Q So it's your testimony that the study didn't add any new findings or new opinions to the studies that you had already relied on in offering your report; right? 04:14:45

A I would have to read it in full in order to be able to say that for sure. When you asked had I seen it before, I can't say whether I actually said (sic) it before and rejected it or if I, in fact, hadn't seen it before, for whatever reason. 04:14:59

Q And, Dr. Cantor, do you agree that transgender or gender-dysphoric youth experience significantly higher levels of anxiety and depression than their cisgender peers? 04:15:19

A That's what the science seems to indicate, yes.

Q So if you look at page 3 of this study, understanding that you have not had the time to fully review it, at the top of the page, the paragraph starting "Nonetheless," this study found that many socially transitioned transgender or gender-dysphoric youth experienced levels of anxiety 04:15:32 04:15:56

and depression in the normative range and equal to or only slightly higher than their sibling -- siblings and cisgender peers.

Do you see that?

A Yes, I do. 04:16:09

Q So are you aware of any studies showing that the existence of a Y chromosome provides an athletic advantage if a person does not go through endogenous male puberty?

MR. BARHAM: Objection as to form and scope. 04:16:25

MR. TRYON: Objection.

THE WITNESS: I'm sorry, could you say that again?

BY COUNSEL SWAMINATHAN:

Q Sure. Are you aware of any studies showing 04:16:32 that the existence of a Y chromosome in an -- in an individual provides an athletic advantage if a person does not go through endogenous male puberty?

MR. TRYON: Objection.

THE WITNESS: I have seen such studies, but 04:16:58 because that question was outside of the scope of what was -- of the questions posed to me, I didn't study them closely.

BY COUNSEL SWAMINATHAN:

Q Can you name some of those studies that 04:17:08

you've seen?

A No, not offhand.

Q Okay. Are you aware of any studies showing that the existence of genitalia associated with the male sex assigned at birth provides an athletic advantage? 04:17:22

MR. BARHAM: Objection as to form, scope and terminology.

MR. TRYON: Same objection.

THE WITNESS: The studies that I saw didn't break down sex into the various components or evidence that indicates sex. 04:17:33

BY COUNSEL SWAMINATHAN:

Q So it fair to say that you haven't seen a study showing that the existence of genitalia associated with the male sex assigned at birth specifically provides an athletic advantage? 04:17:44

A No --

MR. TRYON: Same objection.

THE WITNESS: No, that's not exactly the same thing. The studies typically compare boys versus girls. They didn't compare any of the components that led them to know or believe that the boys were boys and the girls were girls. They divided boys and girls, but they didn't analyze differences 04:17:56 04:18:10

specifically according to chromosomes or genitalia.
BY COUNSEL SWAMINATHAN:
Q Can you recall the names of any of those studies that you're referring to?
A No. I didn't study them as closely since they weren't part of the questions posed to me. 04:18:21
Q Okay.
COUNSEL SWAMINATHAN: I'm going to show you tab 21, which will be marked as Exhibit 62.
(Exhibit 62 was marked for identification by the court reporter and is attached hereto.) 04:18:32
THE WITNESS: I hit the wrong button.
MR. BARHAM: Is this a good break time?
COUNSEL SWAMINATHAN: Sure.
Do you need a break, Dr. Cantor? 04:19:22
Can we go off the record?
No problem.
THE VIDEOGRAPHER: Yes. We are going off the record at 4:19 p.m., and this is the end of Media Unit No. 5. 04:19:32
(Recess.)
THE VIDEOGRAPHER: Okay. We are back on the record, 4:31 p.m., and this is the beginning of Media Unit No. 6.
Go ahead, please. 04:31:03

COUNSEL SWAMINATHAN: Great.

BY COUNSEL SWAMINATHAN:

Q So, Dr. Cantor, I believe just before the break I was introducing tab 21, which is marked as Exhibit 62, into the Exhibit Share. Please let me know if you've been able to access it. 04:31:10

A Yes, I can see it.

Q Great. And have you seen this one page before?

A Yes. I wrote it. 04:31:43

Q Okay. And so JamesCantor.org is your website; right?

A Yes, it is.

Q Great. And why did you include this bill of transsexual rights on your website? 04:31:54

A Typically addressing the other pole of this highly polarized debate.

Q So the first bill of rights states that "People who are transsexual have the right to respect." 04:32:10

Do you agree with this statement?

A Yes, I do.

Q Great. And under the statement, it reads (as read):

"As societies and institutions 04:32:22

become increasingly aware of their transsexual members and participants, they become increasingly confronted by the needs to assimilate and accommodate what they used to ignore. Taking on these tasks from a position of basic respect will go a long way in establishing inclusive policies and healthy environments." 04:32:30 04:32:41

Did I read that accurately?

A Yes.

Q What inclusive policies are you referring to here on your website?

A I wasn't referring to any particular policy. 04:32:53

Q So when you say "Taking on these tasks from a position of basic respect will go a long way in establishing inclusive policies," what did you mean inclusive -- what did you mean when you wrote "inclusive policies"? 04:33:11

A Policies that would help transsexuals feel included in the rest of society.

Q Got it. And what did you understand -- or what do you understand the phrase "healthy environments" to mean? 04:33:22

A I wasn't trying to make a -- I wasn't trying to be specific, certainly not when I wrote this, which, I think, now was more than ten years ago. I was referring in general to how caustic environments were -- were becoming for everybody in those days. 04:33:41

Unfortunately, environments have become all the more, as they say, polarized.

Q Do you still agree with this statement as it reads on your website?

A I -- I agree with the statement, but, of course, we're in a very different context now. Society, I mean, is in a very different context now. 04:33:52

Q What's different about the context now as compared to when you authored this portion of your website? 04:34:14

A Oh, goodness. Most of the child transition issues have now become mainstream issues, and people are making extreme statements and cherry-picking and overstating the reality on both sides.

Q So I pulled this document, as you can see at the corner of the page, on March 17th, 2022, at 7:14 a.m. I was up early that day. 04:34:34

Is there a reason that you haven't updated your website in the last ten years?

A Oh, I just became involved in other projects. 04:34:52

It also became easier to communicate with the public in other venues. Again, ten years ago, we barely had any -- we barely had any social media. I'm not even sure we had Twitter then. So now there are just other venues by which to communicate these types of ideas. 04:35:11

Q Got it. Okay.

And so the second bill of rights states (as read):

"People considering transition have the right to be free from undue pressure to transition -- to de-transition, or not to transition. 04:35:18

Do you agree that people considering transition have the right to be free from undue pressure to not transition? 04:35:28

A Yes.

Q And under this statement, it reads (as read):

"Some aspects of transition, such as medical interventions, affect only the person undergoing the process, and some aspects of transition directly affect other people in their lives. People considering and undergoing transition have the right 04:35:44 04:35:55

to make their choices on the basis of these only, and not for any political, religious, or societal statement that it might be perceived to be making." 04:36:06

Did I read that correctly?

A Yes.

Q Do you agree that medical interventions and transitioning affect only the person undergoing the process? 04:36:17

A That would depend on the medical intervention itself. That's not a -- medical interventions aren't one thing.

Q Got it. So it's a -- as your words say, "Some aspects of transition, such as medical interventions, affect only the person undergoing the process..." 04:36:34

What did you mean by that?

A I was allowing for the possibility, such as, for example, cosmetic -- purely cosmetic changes are for the person themselves, but someone who is going to be -- replace wearing false breasts with breast implants, to the outside world, it will look the same, but it will feel very different to the person. 04:36:46

Q So apologies, you said that medical 04:37:03

intervention such as cosmetic changes? So is -- is a cosmetic change like wearing a, you know, fake breast-augmenting device a medical intervention?

A I didn't mean to and still don't mean to be that precise so much as to point out to readers that -- that there exists interventions which may have absolutely nothing to do with -- with anybody other than the transsexual person themselves. I didn't mean to try to enumerate or express an opinion about any particular one of them. 04:37:21 04:37:40

Q But you agree that those interventions can be medical, correct, as --

A Yes.

Q Okay. And you then go on to state that (as read): 04:37:47

"People considering and undergoing transition have the right to make their choices on the basis of these only, and not for any political, religious, or societal statement..." 04:38:00

Do you agree that it should be the transgender person's choice whether to go through medical treatment?

A Phrase that again, please.

Q Do you agree that it should be the 04:38:16

transgender or gender-dysphoric person's choice whether or not to go through medical treatment?

A Broadly speaking, yes. There can, however, and there do legitimately -- there will legitimately exist exceptions to that. 04:38:39

Q Okay. But broadly speaking, yes?

A In general, it is that person to -- it's up to that person to decide whether to do it. But, of course, if there's a medical reason not to do it that the person is ignoring, it is indeed up to the 04:38:48 actual medical staff to ensure that those procedures are not engaged in, even if it is the wishes of the patient.

Q Okay. And if you turn to the next page, page 2 of 3 of your bill of transsexual rights, 04:39:05 number 5 states (as read):

"People in the process of transition have the right to health care that respects the gender in which they live, including to be addressed by 04:39:14 pronouns and other language that acknowledges that gender."

Did I read that correctly?

A I'm sorry, which number are you reading from?

Q Number 5. 04:39:34

A Ah.

MR. TRYON: Counsel, I'm going to object to questions, continued questions, on this. It's outside the scope.

COUNSEL SWAMINATHAN: Thank you, Counsel. Your objection is noted. 04:39:43

THE WITNESS: I'm sorry, I just reread it.

And, I'm sorry, what was your question again?

BY COUNSEL SWAMINATHAN:

Q I hadn't asked one yet, but I will -- 04:39:54

A Oh.

Q -- ask it now.

Do you agree that people in the process of transition have the right to be addressed by pronouns and other language that acknowledges the gender in which they live? 04:39:59

MR. BARHAM: Objection as to form and scope.

THE WITNESS: In the context in which I wrote it, yes. In today's context, where -- where the right is -- "exaggerated" isn't the right word, but being abused or used for disingenuous purposes would be a reasonable limit to that which really did not meaningfully exist when I first -- first wrote this. 04:40:26

BY COUNSEL SWAMINATHAN:

Q So do you agree, generally, that people in 04:40:47

the process of transition have the right to be addressed by pronouns and other language that acknowledges the gender in which they live, aside from these ulterior instances that you just referenced? 04:41:03

MR. BARHAM: Objection as to form and scope.

MR. TRYON: Same objection.

THE WITNESS: Again, in general, yes. But transition -- the word "transition" and the process of transition now is used and meant very differently 04:41:17 from how it was a decade ago.

BY COUNSEL SWAMINATHAN:

Q How is it used differently?

A It's used more broadly, it's used prematurely, and it's used by people who are 04:41:29 completely outside any healthcare context.

Q Is it always used more broadly and more prematurely now?

A I don't really understand the question.

Q Is it always the case that the language that 04:41:51 you're taking issue with today is due to the fact that it's being used prematurely in individuals who are gender dysphoric?

MR. TRYON: Objection to the form.

THE WITNESS: I'm sorry, I'm still not quite 04:42:09

understanding the question.

COUNSEL SWAMINATHAN: Court Reporter, can you please read back Dr. Cantor's answer before, where he expresses the understanding issue?

(Record read.)

THE REPORTER: The one before that, do you want me to --

COUNSEL SWAMINATHAN: That's good.

THE REPORTER: Okay.

BY COUNSEL SWAMINATHAN:

Q So, Dr. Cantor, I was just saying, do you believe that it's always the case that the word is used more broadly and more prematurely?

A There are people who still use it properly, yes. 04:42:58

Q Okay. So you were a member of the Society for the Scientific Study of Sexuality; correct?

A Yes, that's correct.

Q What is the purpose of the society?

A Their stated purpose is to forward and promote the conduct and dissemination of sex research. 04:43:15

Q How did you get involved in that society?

A Oh, I joined when I was a student, as, in those days, it was -- it was a well-known large 04:43:36

organization, and it had -- it was relatively easy to get into. One, essentially, could get into it just by signing up.

Q Were there any fees associated with the society? 04:43:51

A Yes, there were.

Q Were they annual membership fees?

A Yes, they were.

Q Are you able to give me an approximation of what those fees were to be a member of the society? 04:44:02

A I don't really recall. They weren't substantial. And, of course, for students, even lower, when I first joined.

Q And how long have you been a member of this society? 04:44:21

A I would have to look it up. It was roughly 15 to 20 years before I resigned.

Q Okay. And what did your membership involve?

A Oh, at that point, really just membership and discussions going -- well, actually, technically, too, I suppose. One was participation, largely in their -- in their Listserv discussions with -- with other sex researchers. And the other, I was on the editorial board of their journal, the Journal of Sex Research. 04:44:49 04:45:07

Q And so am I understanding it correctly that you had to be a member in order to access the Listserv for the Society for the Scientific Study of Sexuality?

A Yes, the Listserv was meant for members. 04:45:16

Q Okay. And you said that you resigned from the society; is that correct?

A That is correct.

Q When did you resign?

A I would have to look up the date. It was 04:45:29 roughly two or three years ago now.

Q Okay.

COUNSEL SWAMINATHAN: I'm going to introduce tab 22, which has been marked as Exhibit 30 -- or 63. 04:45:59

(Exhibit 63 was marked for identification by the court reporter and is attached hereto.)

BY COUNSEL SWAMINATHAN:

Q Please let me know when you're able to see it. 04:46:01

A Got it.

Q Great. And so this is a blog post in Sexology Today!; correct?

A Yes, it is.

Q And remind me again, what -- what is 04:46:34

Sexology Today!?

A It's my blog.

Q It's your blog. Okay.

And this blog post was published on August 10th, 2020; correct? 04:46:45

A Yes, that's correct.

Q And I'm not going to assume, but since it's your blog, I assume you authored this blog post; right?

A Yes. 04:46:59

Q Okay. And so I see here that you had a 27-year association with the Society for the Scientific Study of Sexuality.

Does that ring a bell?

A Yes. Longer than I remember. 04:47:09

Q And I see here that the society had removed you from the online forum; is that right?

A That's right.

Q It says (as read):

"I then received an unsigned email informing me that I had been suspended from the listserv." 04:47:24

Did I read that correctly?

A I'm not seeing that line, but it sounds familiar. 04:47:34

Q Apologies. It's toward the middle of the page. I think the fourth paragraph down.
A Yes.
Q Okay. Why were you removed from -- or why were you suspended from the Listserv? 04:47:49
A That's a good question. There's the reason they gave me, and there's the reason that everybody suspects, but nobody will say out loud.
Q Can you describe that a bit more?
A They believe -- or they told me that what I said they deemed to be disrespect- -- disrespectful. 04:48:05
Q What did you say that they deemed to be disrespectful?
A I sincerely don't remember.
Q Did -- to your recollection, did what you said -- did what you say deal with issues relating to transgender people or gender-dysphoric people? 04:48:30
A Yes. We were debating something about the science or findings that were reported in the science and whether it matched up with whatever it was somebody else was saying. That led to a -- and that led to a debate. I don't remember without, you know, going back through my old e-mails exactly what it -- what it was. 04:48:51
Q Got it. Can you turn to the next page of the 04:49:06

exhibit, please?

A Got it.

Q Okay. And there's a footnote 1 at the bottom of the page. Can you please review that footnote?

A Yes. 04:49:29

Q So this is an e-mail that you received from the board of directors?

A Yes, it is.

Q Is the paragraph under the first sentence, the one beginning with "Nasty, discourteous, unkind, 04:49:43 uncivil, attacking, inappropriate, unprofessional, harassing, threatening, hateful, racist, sexist, homophobic, erotophobic, derogatory, or objectionable remarks or jokes that might be offensive to other people, abusive, defamatory, 04:50:01 libelous, pornographic, obscene, invasive of another's privacy, or otherwise torturous or un- -- torturous or unlawful messages will NOT be deemed appropriate. Courtesy is highly valued" -- is what I just read one of the Listserv's guidelines? 04:50:21

A Yes, I believe it is.

Q And did the Society for the Scientific Study of Sexuality believe that you violated one of these guidelines?

A There's no way to know what the society 04:50:32

thought. The board of directors voted that I did, but the enormous debate and the other resignations from the society at the -- at the same time suggested that was not the opinion of the society; it was just -- whichever relevant members of the board. 04:50:51

Q Does this e-mail reflesh -- refresh your recollection of what opinion you expressed that caused them to suspend your membership from the Listserv? 04:51:07

A No, it doesn't. I didn't express -- I never expressed anything on that Listserv that I hadn't expressed in many other venues, including with other professionals, with other sex researchers.

Q And so can you please look at the next page, at footnote 3? 04:51:20

And I believe footnote 3 spans three pages, from 3 of 9 to 5 of 9, of the exhibit.

And this looks like it's an e-mail from you to the Society of Scientific Study of Sexuality members dated July 20th, 2020, at 4:48 p.m.; is that correct? 04:51:47

A That time is correct. But, no, I did not write that.

Q This is not your e-mail? 04:52:02

A Footnote -- in footnote 3, no, it is not.
Q Whose e-mail is this?
A Zoe Peterson, then-president of quad S.
Q Okay. And --
A I believe she signed it at -- yes, that's her signature at the bottom of it. 04:52:16
Q Great. And so this e-mail was written by Zoe Peterson in response to your resignation from the society and your suspension from the Listserv?
A I hesitate to say what she wrote -- I hesitate to say that she wrote it in response to me. I think she wrote it in response to the enormous discussion on the list that happened, saying that the society disagreed with what the board did in banning me from the Listserv. 04:52:33 04:52:50
Q I see. Okay.
And so this e-mail did go out after you were banned from the Listserv; right?
A Correct. Some of the other members continued to forward to me relevant e-mails about the debate that was going on which I then couldn't see. 04:53:00
Q Okay. And if you look at page 4 of the exhibit, at the bottom of the page.
A Yes.
Q There's a paragraph starting with "Finally, 04:53:17

and most importantly, to our transgender, non-binary, and gender nonconforming members who raised this issue and who have expressed that they have felt -- they have long felt hurt, disrespected, marginalized, and unprotected on our listserv and within our organization, I hear you and I thank you for sharing your experiences and reactions with such honesty and courage."

Do you see that? 04:53:33

A Yes, I do. 04:53:46

Q Do you know why Zoe Peterson included that in her e-mail?

A I assume that she was trying to demonstrate that people who were resigning should stop resigning and that she was on what she considered to be the politically correct avenue. 04:54:02

Q So when she says "Finally, and most importantly, to our transgender, non-binary, and gender nonconforming members who raised this issue," what issue is she talking about? 04:54:19

A That's a very good question.

Q Do you know the answer to that question?

A No, I don't.

Q Do you have any understanding that may inform what the issue that she is referring to may be? 04:54:34

A No. My experience is that people are misrepresenting issues and exaggerating them in order to come out with whatever political outcome they want. It is exactly because this is so vague that I can't come to any other conclusion but that this is another one of those. 04:54:51

Q So is it your testimony that this response from Zoe Peterson was not in reaction to your suspension from the Listserv?

A That's not exactly -- 04:55:11

MR. BARHAM: Objection as to form.

THE WITNESS: That's not exactly true either. We had a long chain of events, each leading to the next, leading to the next, leading to the next. So there's an association, but not a direct association. And I have no reason to think that she was writing to me. And she's a politician, president of the organization. I also can't easily discount that she's writing it for purely political purposes and the content -- I -- I -- I can't know how much she genuinely believes the content. 04:55:27 04:55:41

BY COUNSEL SWAMINATHAN:

Q So can you tell me more generally what the chain of issues was about?

A No. I honestly can't recall. I'm in many, 04:55:55

many debates on many, many different Listservs over the years, and I can't any longer recall which particular issue sparked this particular debate.

Q And you said that Zoe Peterson is a politician because she's the president of the Society for the Scientific Study of Sexuality. Why did you -- 04:56:13

A She --

Q -- say that?

A She's writing as a politician, in her political capacity. 04:56:15

Q What is her political capacity as president for the Society for the Scientific Study of Sexuality?

A I don't understand that question outside of -- you answered it exactly within the question. 04:56:33

Q I guess I'm just trying to understand what makes Zoe Peterson a politician beyond her title as president of the society.

A That she is in charge of ensuring that the board of directors has sufficient respect in order to run the organization. They were losing an enormous amount of respect over their treatment of me, and she was trying to shore up what she could. 04:56:45

Q How did you know that they were losing an 04:57:01

enormous amount of respect as a result of your ban from the Listserv and your resignation?

A Oh, dozens and dozens and dozens of people were e-mailing me directly immediately afterwards. They were saying things to the list. Even though I couldn't see the list, they were cc'ing me on their responses so I could see it as they were sending it, as people -- 04:57:17

Q You said --

A -- people who resigned. 04:57:26

Q Apologies, I interrupted your answer. Please continue.

A As people were resigning from the organization, they were e-mailing me to let me know that they were resigning from the organization. 04:57:36

Q You say dozens and dozens and dozens, does that mean about 36 people?

A Oh, again, I couldn't count. Somewhere on the order of under 50 would -- seems about -- feels about right. 04:57:51

Q Did any members disagree with you in the Society for the Scientific Study of Sexuality?

A That I recall, three or four people who were post- -- if that many -- who were posting during the debate itself. 04:58:13

Q Do you remember the names of those individuals?
A No, I don't.
Q And how many members were are the society, in total? 04:58:23
A That's a good question. Only a relatively small number of members are on the Listserv, only a small number of those who are on the Listserv ever participate in the Listserv, but I don't know the numbers of each of those categories. 04:58:40
Q How many members would you say actively participate on the Listserv?
A I'd guess about a hundred.
Q Okay. And so of those hundred, you say only three or four of them would agree with your 04:59:02 retracted access to the Listserv; is that correct?
A Well, no.
MR. TRYON: Objection.
THE WITNESS: We weren't disagreeing over my access to the Listserv; we were disagreeing over 04:59:18 whatever scientific issue it was that we were disagreeing over.
BY COUNSEL SWAMINATHAN:
Q Were there folks who were in support of your resignation and your removal from the Listserv? 04:59:29

A The only ones I heard about were the people that Zoe Peterson referred to. I never knew their names. I don't know who reported me to whom, under what circumstances, the number of people.

Q Okay. And so if we -- so sitting here today, you're -- you're not aware of what the issue was that caused? 04:59:53

A I don't recall, no.

Q Okay. And remind me again -- so you said Sexology Today! is your blog; right? 05:00:08

A That's correct.

Q Do you control all the content of Sexology Today!?

A Yes, I do. Except sometimes people post comments. 05:00:23

Q So the actual blog posts are all your writing, but the comments came from other people; is that correct?

A Yes, that's correct.

Q Okay. About how many blog posts have you offered on Sexology Today!? 05:00:34

A Oh, 20ish, maybe.

Q And when did you start your website?

A Maybe 15 years ago.

Q And so why did you feel the need to write 05:00:56

this open letter of resignation from the Society for the Scientific Study of Sexuality on your blog post?

A Oh, because they were failing at their -- at their own mission. I was promoting science. Again, I don't remember which particular issue within it, but it was science -- it was what was being shown in the science despite whether anybody else liked what was being shown in the science. By blocking me and what I was saying, they were blocking the progress of science -- of science itself and the purpose of the organization. 05:01:14 05:01:31

Q And I understand that you can't remember the incident that led to your resignation and your banning from the Listserv, but do you believe that you made any statements that would have been perceived as offensive to any members of the society? 05:01:45

A I can't automatically collapse together what is offensive and what is called offensive. I sincerely don't believe and I don't think that any objective observer would label anything that I had ever said as offensive, but that's very different from whether somebody would call it offensive in order to keep me from saying it because they didn't like its implications. 05:02:09 05:02:24

Q I understand. So it's possible that they either didn't like your implications of what you said or they were actually taking offense with what you had said; is that correct? Those -- those are two plausible reactions? 05:02:38

MR. TRYON: Objection to the form of the question.

THE WITNESS: Yes, both of those are at least theoretically possible.

BY COUNSEL SWAMINATHAN: 05:02:51

Q Okay. And so, you know, we were talking earlier about what you understand gender-affirming care to mean versus how I use the phrase.

So it your opinion that the word "transition" can only be applied in the healthcare setting? 05:03:08

A It depends on the context. It is relatively recent that social transition has come to be called transition at all. So if one is reading older posts, older papers, older words, "transition" usually would refer to somebody who has embarked in 05:03:31 a recognized program and is going through steps. When -- people use the word "transition" today much, much more broadly.

Q Okay. And so as you sit here today, is it your understanding that the words -- the word 05:03:51

"transition" should only be applied in the healthcare setting?

MR. TRYON: Objection.

MR. BARHAM: Objection --

MR. TRYON: Objection. 05:04:02

MR. BARHAM: Objection as to form.

THE WITNESS: I can't say that I have any opinion about how it should be used. The only important criterion to me is that a term, any term, is used consistently and concretely and 05:04:18 objectively -- and as objectively as possible.

If "transition" is going to continue to mean something very, very broad, then we are, once again, going to need a term to refer to the more specific situations, as long as we're involved in those 05:04:40 specific situations.

BY COUNSEL SWAMINATHAN:

Q And, Dr. Cantor, what is your understanding of a competitive sport?

MR. BARHAM: Objection as to form and scope. 05:04:54

MR. TRYON: I also object.

THE WITNESS: I would have to say that I really have no understanding of "competitive sport" other than a layperson's.

///

BY COUNSEL SWAMINATHAN:

Q Do you have any understanding of what a physical advantage is in a sport?

MR. TRYON: Objection.

MR. BARHAM: Objection to form and scope. 05:05:19

THE WITNESS: Again, I know the particular terms in the same way that any -- that the lay public would, but when questions -- when questions are posed or an issue is -- arises where there is a quantitative or numeric answer to it, I now have a 05:05:35 level of expertise for analyzing those statistics for answering the question that other people don't.

BY COUNSEL SWAMINATHAN:

Q Has anyone ever posed that question to you before me today? 05:05:50

A Not in a formal context, no.

Q Would you be able to tell me what your understanding is of a physical advantage in a competitive sport, as you sit here today?

MR. TRYON: Objection; scope and form. 05:06:05

MR. BARHAM: Same.

THE WITNESS: Too var- -- any variable that has a causal relationship with the outcome of how that sport is -- is evaluated.

///

BY COUNSEL SWAMINATHAN:

Q And do you agree that there are some competitive sports teams where physical size is an advantage?

A That would certainly seem so, yes. 05:06:29

Q Okay.

COUNSEL SWAMINATHAN: I'm going to introduce tab 23, which will -- which was previously marked as Exhibit 49. And the article is another blog post from Sexology Today! titled "When is a 'TERF' not a TERF?" 05:06:54

THE WITNESS: Got it.

BY COUNSEL SWAMINATHAN:

Q Great. And you authored this article in July of 2020; correct? 05:07:14

A Correct.

Q And in this article, you write -- and I'll turn your attention to the middle of the post. It says (as read):

"I must first challenge the ironically binary premise that 'exclusion' is all or none. It's only in the current climate of extremism that no moderate views get discussed. Here is a range of some 05:07:27 05:07:40

areas in which sex/gender require protection:"

And you list employment, housing, public accommodation, with ellipses, locker rooms/showers, with nudity, and in parentheses, sauna, hottub, ellipses, close parentheses, locker room/washrooms, sex segregated. And the final item you list is competitive sports team, where physical size is an advantage. 05:07:57

Did I read that correctly? 05:08:18

A Yes.

Q Great. And so in this blog post, you say that sex/gender require protection in competitive sports teams where physical size is an advantage; is that correct? 05:08:39

A I offered it as more of an example of -- of an extreme on a range, but it's hard to think of something that would be even more extreme than that, yes.

Q Is it your belief that cross-country is a sport where physical size is an advantage? 05:08:48

MR. TRYON: Objection; scope.

THE WITNESS: I don't know. I would have to -- I haven't read that part of the literature.

///

BY COUNSEL SWAMINATHAN:

Q Have you seen any evidence that shows that physical sides provide -- physical size provides an advantage in cross-country?

MR. TRYON: Objection; scope. 05:09:15

MR. BARHAM: Objection.

THE WITNESS: No, I haven't read those studies.

BY COUNSEL SWAMINATHAN:

Q Okay. Sitting here today, do you have any opinion whether or not the plaintiff in this case, B.P.J., should be allowed to run on the girls' cross-country team? 05:09:19

MR. BARHAM: Objection as to scope and form.

MR. TRYON: Same objection. 05:09:36

THE WITNESS: I have no opinion in the actual outcome.

COUNSEL SWAMINATHAN: Okay. I think this is a good point for a break. I'm just going to confer with my co-counsel and see if we have anything else left to discuss with Dr. Cantor. 05:09:44

But does regrouping at 5:120 work -- sorry -- 5:20 work for everyone, a ten-minute break?

MR. BARHAM: Sure.

COUNSEL SWAMINATHAN: Go off the record. 05:10:00

THE VIDEOGRAPHER: Yep. We're going off the record. The time is 5:10 p.m., and this is the end of Media Unit No. 6.

(Recess.)

THE VIDEOGRAPHER: All right. We are back on the record at 5:26 p.m., and this is the beginning of Media Unit No. 7. 05:26:05

Go ahead, please.

BY COUNSEL SWAMINATHAN:

Q Dr. Cantor, I'm going to ask you to take a look back at your 2022 expert report, page 3. 05:26:15

A I'm sorry, what page again?

Q Page 3.

A Got it.

Q Great. And before we conclude today, I just to confirm that you are offering no opinions beyond the principal opinions that you on this page of the report and the paragraph at the bottom of the page. Is that accurate? 05:26:41

A Yes, it is. 05:26:56

Q Great.

COUNSEL SWAMINATHAN: Thank you so much for your time, Dr. Cantor.

I have no further questions right now. I'll tender the witness, but reserve my right to ask 05:27:03

questions should defense counsel ask questions.

So thank you so much.

EXAMINATION

BY MR. BARHAM: 05:27:07

Q I do have a few quick questions for you, Dr. Cantor.

I want to refer to your expert report and page 32 of your CV. Unfortunately, I don't know which page that is in the deck. 05:27:30

THE WITNESS: It's the last page of it, is it?

BY MR. BARHAM:

Q Correct.

A Goodness, next life, I get a shorter career. 05:27:57

Here we go.

Q Earlier today, when we were discussing your expert testimony, were you referring -- did you have this page in front of you at the time?

A No, I did not. 05:28:10

Q On here, there is a 2019 case in probate and family court, a custody hearing in Boston, Massachusetts.

Do you see that line on page 32?

A Yes, I do. 05:28:27

Q Could you describe the general issue involving your expert testimony in that case?

A Yes. Two women, a lesbian couple, were divorcing. They had joint custody of their child whom they were fighting over. The child had gender dysphoria. Now it's a female. One parent believed that the child should transition; the other parent did not. 05:28:38

Q Earlier today, we were also discussing the instances in which you have provided care for transgender individuals. 05:28:57

Is it the case that you have only provided care for transgender individuals in your current clinic?

A No. I was also providing care while I was at CAMH. 05:29:15

COUNSEL SWAMINATHAN: Can I just interrupt you for one quick second, Dr. Cantor?

Travis, I'm having trouble hearing you.

MR. BARHAM: Oh, I apologize. 05:29:26

COUNSEL SWAMINATHAN: If you could get closer to the mic, I would greatly appreciate that.

And sorry, again, to disrupt.

MR. BARHAM: Court Reporter -- is the court reporter having similar issues, or have we been able

to get all those questions into the transcript?

THE REPORTER: I've been able to get them all. It is a little bit difficult to hear you, though.

MR. BARHAM: I apologize. I slid too far over to my binder.

THE REPORTER: Thank you.

MR. BARHAM: I will address that.

THE REPORTER: Thank you.

BY MR. BARHAM: 05:29:46

Q Dr. Cantor, we also were earlier discussing the different types of gender dysphoria, adult onset, adolescent onset and childhood onset.

If we're dealing with -- if you're confronted with an individual in, say, his early -- his or her 05:30:04 early 20s who is experiencing gender dysphoria, which category would that individual likely fall into? What -- what categories would be possible?

A Both categories are possible. Early 20s, the adult onset would be more likely, but we can't be 05:30:31 quite as sure today as we could, say, 10, 15 years ago. But they're -- until relatively recently, the children who came in were children, prepubescent, and the adults who came in were generally middle-aged. We didn't get anybody coming in during 05:30:47

their teens or 20s. And so the nicknames for these -- for these two groups simply became child onset and adult onset.

As years have gone on and more people started presenting, there's now a little bit more overlap in between. 05:31:02

So when age can't be used in order to provide very obvious categorization -- if somebody comes in clinically, we would start ask -- asking other questions that -- that would tell us what group they belong to, such as their sexual interest patterns, whether they were attracted to men, women, both and so on. 05:31:16

Q And when you said a moment ago that both categories would be possible, what are the two categories that you had in mind? 05:31:31

A It's possible that the --

COUNSEL SWAMINATHAN: Objection to the form.

THE WITNESS: It's possible that the person would be an adult-onset case, but coming into a clinic relatively early, especially now that trans issues are talked about so much more. Or as a childhood-onset case who didn't come in for the medical or other -- other care until atypically late. 05:31:40 05:31:57

MR. BARHAM: All right. I believe those are all the questions I need to ask.

Mr. Tryon, do you need to supplement?

MR. TRYON: Maybe I could ask just one question, Mr. -- Dr. Cantor. 05:32:13

EXAMINATION

BY MR. TRYON:

Q So in the event that you were to determine that someone in that age category, who was a college 05:32:18 student, were suffering from adult-onset dysphoria, would then adult-onset dysphoria become relevant in connection with the statute which we have in place here, which we are discussing here?

COUNSEL SWAMINATHAN: Objection to form. 05:32:41

THE WITNESS: Yes, it would become relevant.

MR. TRYON: I have no other questions.

MS. DUPHILY: Should we go off the record?

COUNSEL SWAMINATHAN: Sounds great.

THE VIDEOGRAPHER: All right. 05:33:02

MR. BARHAM: Does this conclude the deposition, or are we taking a break?

THE VIDEOGRAPHER: This --

COUNSEL SWAMINATHAN: It concludes our questioning from plaintiff's side. 05:33:06

THE VIDEOGRAPHER: Everybody's had a chance; otherwise, we'll --

MS. GREEN: Actually -- this is Roberta Green on behalf of WVSSAC, and I would just like to note for the record that we have no questions. 05:33:17

THE VIDEOGRAPHER: Okay.

MR. CROPP: This is Jeffrey Cropp for the Harrison County Board of Education and Dora Stutler. We have no questions.

THE VIDEOGRAPHER: Okay. 05:33:24

MS. MORGAN: This is Kelly Morgan on behalf of the West Virginia Board of Education and Superintendent Burch. I don't have any questions.

Thank you.

THE VIDEOGRAPHER: Okay. I think that's everyone now. So with -- with that, I will take us off the record. 05:33:40

Okay. We are off the record at 5:33 p.m., and this ends today's testimony given by Dr. Cantor.

The total number of media used was seven and will be retained by Veritext Legal Solutions. 05:33:54

(TIME NOTED: 5:33 p.m.)

I, JAMES M. CANTOR, do hereby declare under penalty of perjury that I have read the foregoing transcript; that I have made any corrections as appear noted, in ink, initialed by me, or attached hereto; that my testimony as contained herein, as corrected, is true and correct.

EXECUTED this _____ day of _____, 20____, at _____, _____.

(City) (State)

_____

JAMES M. CANTOR

VOLUME I

I, the undersigned, a Certified Shorthand Reporter of the State of California, do hereby certify:

That the foregoing proceedings were taken before me at the time and place herein set forth; that any witnesses in the foregoing proceedings, prior to testifying, were placed under oath; that a record of the proceedings was made by me using machine shorthand which was thereafter transcribed under my direction; further, that the foregoing is an accurate transcription thereof.

I further certify that I am neither financially interested in the action nor a relative or employee of any attorney of any of the parties.

IN WITNESS WHEREOF, I have this date subscribed my name.

Dated: MARCH 28, 2022

ALEXIS KAGAY

CSR NO. 13795

TRAVIS C. BARHAM, ESQ.

tbarham@adflegal.org

MARCH 28, 2022

RE: BPJ V. WEST VIRGINIA STATE BOARD OF EDUCATION

MARCH 21, 2022, JAMES M. CANTOR, JOB NO. 5122845

The above-referenced transcript has been completed by Veritext Legal Solutions and review of the transcript is being handled as follows:

__ Per CA State Code (CCP 2025.520 (a)-(e)) - Contact Veritext to schedule a time to review the original transcript at a Veritext office.

__ Per CA State Code (CCP 2025.520 (a)-(e)) - Locked .PDF Transcript - The witness should review the transcript and make any necessary corrections on the errata pages included below, notating the page and line number of the corrections. The witness should then sign and date the errata and penalty of perjury pages and return the completed pages to all appearing counsel within the period of time determined at the deposition or provided by the Code of Civil Procedure.

__ Waiving the CA Code of Civil Procedure per Stipulation of Counsel - Original transcript to be released for signature as determined at the deposition.

__ Signature Waived - Reading & Signature was waived at the time of the deposition.

_X_ Federal R&S Requested (FRCP 30(e)(1)(B)) - Locked .PDF Transcript - The witness should review the transcript and make any necessary corrections on the errata pages included below, notating the page and line number of the corrections. The witness should then sign and date the errata and penalty of perjury pages and return the completed pages to all appearing counsel within the period of time determined at the deposition or provided by the Federal Rules.

__ Federal R&S Not Requested - Reading & Signature was not requested before the completion of the deposition.

BPJ V. WEST VIRGINIA STATE BOARD OF EDUCATION

JAMES M. CANTOR (#5122845)

E R R A T A S H E E T

PAGE_____ LINE_____ CHANGE_____

_____

REASON_____

PAGE_____ LINE_____ CHANGE_____

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REASON_____

PAGE_____ LINE_____ CHANGE_____

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REASON_____

PAGE_____ LINE_____ CHANGE_____

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REASON_____

PAGE_____ LINE_____ CHANGE_____

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REASON_____

PAGE_____ LINE_____ CHANGE_____

_____

REASON_____

_____ _____

WITNESS Date

I, GREGORY BROWN, Ph.D., do hereby declare under penalty of perjury that I have read the foregoing transcript; that I have made any corrections as appear noted, in ink, initialed by me, or attached hereto; that my testimony as contained herein, as corrected, is true and correct.

EXECUTED this 9 day of May, 2022, at Kearney (City), Nebraska (State).

GREGORY BROWN, Ph.D.

Volume I

GREGORY BROWN, Ph.D.

browngа@unk.edu

APRIL 6, 2022

RE: B.P.J. v. WEST VIRGINIA STATE BOARD OF EDUCATION

MARCH 25, 2022, GREGORY BROWN, Ph.D., 5122856

The above-referenced transcript has been completed by Veritext Legal Solutions and review of the transcript is being handled as follows:

__ Per CA State Code (CCP 2025.520 (a)-(e)) - Contact Veritext to schedule a time to review the original transcript at a Veritext office.

__ Per CA State Code (CCP 2025.520 (a)-(e)) - Locked .PDF Transcript - The witness should review the transcript and make any necessary corrections on the errata pages included below, notating the page and line number of the corrections. The witness should then sign and date the errata and penalty of perjury pages and return the completed pages to all appearing counsel within the period of time determined at the deposition or provided by the Code of Civil Procedure.

__ Waiving the CA Code of Civil Procedure per Stipulation of Counsel - Original transcript to be released for signature as determined at the deposition.

__ Signature Waived - Reading & Signature was waived at the time of the deposition.

_x_ Federal R&S Requested (FRCP 30(e)(1)(B)) - Locked .PDF Transcript - The witness should review the transcript and make any necessary corrections on the errata pages included below, notating the page and line number of the corrections. The witness should then sign and date the errata and penalty of perjury pages and return the completed pages to all appearing counsel within the period of time determined at the deposition or provided by the Federal Rules.

__ Federal R&S Not Requested - Reading & Signature was not requested before the completion of the deposition.

B.P.J. v. WEST VIRGINIA STATE BOARD OF EDUCATION

GREGORY BROWN, Ph.D. (#5122856)

E R R A T A S H E E T

PAGE 29 LINE 23 CHANGE The word "interest" should be "interested"

REASON This more accurately reflects what was said

PAGE 85 LINE 13 & 16 CHANGE McManis should be spelled McManus

REASON Correct Spelling

PAGE 151 LINE 10 CHANGE Change "a third" to "two thirds"

REASON This more accurately reflects what was said

PAGE 157 LINE 7 CHANGE change to "...yes, as to the first part of the question. And as to the second part I would say it's fair to say that I don't cite Klaver in percent body fat

REASON Clarifying my answers to a two part questions

PAGE 163 LINE 19 CHANGE Change text to "...group. And I recently published in Advances in..."

REASON This more accurately reflects what was said

PAGE 163 LINE 8 CHANGE The word "peacock" should be "PECOP"

REASON PECOP is the correct title

WITNESS May 4, 2022
Date

B.P.J. v. WEST VIRGINIA STATE BOARD OF EDUCATION

GREGORY BROWN, Ph.D. (#5122856)

E R R A T A S H E E T

PAGE 191 LINE 13 CHANGE change "Higgard" to Higerd"

REASON Correct Spelling

PAGE 245 LINE 8 CHANGE change "somehow" to "someone"

REASON this more accurately reflects what was said

PAGE 273 LINE 23 CHANGE change "states" to "stated"

REASON this more accurately reflects what was said

PAGE _____ LINE _____ CHANGE _____

REASON _____

PAGE _____ LINE _____ CHANGE _____

REASON _____

PAGE _____ LINE _____ CHANGE _____

REASON _____

Gregory A. Brown — May 9, 2022

WITNESS Date

WEST VIRGINIA LEGISLATURE

2021 REGULAR SESSION

ENROLLED

Committee Substitute

for

House Bill 3293

BY DELEGATES HANNA, BRIDGES, CLARK, ELLINGTON, HORST, JENNINGS, LONGANACRE, MAZZOCCHI, TULLY, PHILLIPS AND BURKHAMMER

[Passed April 9, 2021; in effect ninety days from passage.]

WEST VIRGINIA LEGISLATURE

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House Bill 3293

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HORST, JENNINGS, LONGANACRE, MAZZOCCHI, TULLY,

PHILLIPS AND BURKHAMMER

[Passed April 9, 2021; in effect ninety days from

passage.]

Enr CS for HB 3293

AN ACT to amend the Code of West Virginia, 1931, as amended, by adding thereto a new section, designated §18-2-25d, relating to designation of athletic teams or sports sponsored by any public secondary school or state institution of higher education according to biological sex; providing legislative findings; defining "biological sex", "female", and "male"; providing for designation of athletic teams as "males, men, or boys", "females, women, or girls", or "coed or mixed"; prohibiting biological males from participating on athletic teams or sports designated for biological females where competitive skill or contact is involved; clarifying that eligibility of any student to participate on athletic teams or sports designated for biological males is not restricted; providing cause of action for student aggrieved by violation of this section; requiring identity of minor student related to such action to remain anonymous; requiring promulgation of rules by the State Board of Education; and requiring proposal of legislative rules by the Higher Education Policy Commission and Council for Community and Technical College Education.

Be it enacted by the Legislature of West Virginia:

ARTICLE 2. STATE BOARD OF EDUCATION.

§18-2-25d. Clarifying participation for sports events to be based on biological sex of the athlete at birth.

(a) The Legislature hereby finds:

(1) There are inherent differences between biological males and biological females, and that these differences are cause for celebration, as determined by the Supreme Court of the United States in *United States v. Virginia* (1996);

(2) These inherent differences are not a valid justification for sex-based classifications that make overbroad generalizations or perpetuate the legal, social, and economic inferiority of either sex. Rather, these inherent differences are a valid justification for sex-based classifications where they realistically reflect the fact that the sexes are not similarly situated in certain circumstances as recognized by the Supreme Court of the United States in *Michael M. v. Sono*

Superior Court (1981) and the Supreme Court of Appeals of West Virginia in *Israel v. Secondary Schools Act. Com'n* (1989);

(3) In the context of sports involving competitive skill or contact, biological males and biological females are not in fact similarly situated. Biological males would displace females to a

Association of Intercollegiate Athletics (NAIA), or National Junior College Athletic Association (NJCAA), shall be expressly designated as one of the following based on biological sex:

(A) Males, men, or boys;

(B) Females, women, or girls; or

(C) Coed or mixed.

(2) Athletic teams or sports designated for females, women, or girls shall not be open to students of the male sex where selection for such teams is based upon competitive skill or the activity involved is a contact sport.

(3) Nothing in this section shall be construed to restrict the eligibility of any student to participate in any interscholastic, intercollegiate, or intramural athletic teams or sports designated as "males," "men," or "boys" or designated as "coed" or "mixed": *Provided,* That selection for a team may still be based on those who try out and possess the requisite skill to make the team.

(d) Cause of Action. —

(1) Any student aggrieved by a violation of this section may bring an action against a county board of education or state institution of higher education alleged to be responsible for the alleged violation. The aggrieved student may seek injunctive relief and actual damages, as well as reasonable attorney's fee and court costs, if the student substantially prevails.

(2) In any private action brought pursuant to this section, the identity of a minor student shall remain private and anonymous.

(e) The State Board of Education shall promulgate rules, including emergency rules, pursuant to §29A-3B-1 *et. seq*. of this code to implement the provisions of this section. The Higher Education Policy Commission and the Council for Community and Technical College Education shall promulgate emergency rules and propose rules for legislative approval pursuant to §29A-3A-1 *et. seq*. of this code to implement the provisions of this section.

Enr CS for HB 3293

The Joint Committee on Enrolled Bills hereby certifies that the foregoing bill is correctly enrolled.

.....
Chairman, House Committee

.....
Chairman, Senate Committee

Originating in the House.

In effect ninety days from passage.

.....
Clerk of the House of Delegates

.....
Clerk of the Senate

.....
Speaker of the House of Delegates

.....
President of the Senate

The within is approved this the 28th

day of April 2021.

.....
Governor

PRESENTED TO THE GOVERNOR

APR 22 2021

Time 1:53 pm

WEST VIRGINIA DIVISION OF HEALTH
VITAL REGISTRATION
CHARLESTON, WV 25339-1012

CERTIFICATE OF LIVE BIRTH

BIRTH NUMBER 2010 [redacted]

ID: CAJAC20100512135630

CHILD

1. CHILD'S NAME (First, Middle, Last): [redacted] [redacted] P[redacted]
2. DATE OF BIRTH (Month, Day, Year): [redacted] / 2010
3. TIME OF BIRTH: 10:10 Mil
4. SEX: Male
5. CITY, TOWN, OR LOCATION OF BIRTH: Morgantown
6. COUNTY OF BIRTH: Monongalia
7. PLACE OF BIRTH: Hospital
8. FACILITY NAME (If not institution, give street and number): WVU Hospitals, Inc.

CERTIFIER/ ATTENDANT

9. I certify that this child was born alive at the place and time and on the date stated. Signature ▶
10. DATE SIGNED (Month, Day, Year): [redacted] / 2010
11. ATTENDANT'S NAME AND TITLE (If other than certifier) (If yes, print): Wanda Hembree, MD
12. CERTIFIER'S NAME AND TITLE (type/print): Jean Colombo, BIRTH REGISTRAR
13. ATTENDANT'S MAILING ADDRESS (Street and Number or Rural Route No. City or Town, State, Zip Code): Wvu Hospitals, Inc. Morgantown, WV 26506

MOTHER

14. MOTHER'S NAME (First, Middle, Last): Heather Denise Jackson
14b. MAIDEN SURNAME: Jackson
15. DATE OF BIRTH (Month, Day, Year): [redacted] / 1968
16. BIRTH PLACE (State or Foreign Country): [redacted]
17a. RESIDENCE - STATE: WV
17b. COUNTY: Harrison
17c. CITY, TOWN OR LOCATION: Lost Creek
17d. STREET AND NUMBER: [redacted]
17e. INSIDE CITY LIMITS (Yes/No): No
18. MOTHER'S MAILING ADDRESS (If same as residence enter zip code only): [redacted]

FATHER

19. FATHER'S NAME (First, Middle, Last): Wesley Scott [redacted]
20. DATE OF BIRTH (Month, Day, Year): [redacted] / 1962
21. BIRTH PLACE (State or Foreign Country): [redacted]

INFORMANT

22. I certify that the personal information provided on this certificate is correct to the best of my knowledge and belief. Heather Jackson
23. REGISTRAR'S SIGNATURE ▶ Pamela J Fox
24. DATE FILED BY REGISTRAR (Month, Day, Year): [redacted] 2010

STATE COPY

Armistead Supp. App. 0840

SARGENT'S COURT REPORTING SERVICE, INC. 210 Main Street Johnstown, PA 15901 814-536-8908 www.sargents.com

ERRATA SHEET

AFFIDAVIT
State of ~~Pennsylvania~~ Illinois
County of Cook

I, Aron C. Janssen, MD, certify under oath or affirmation that I have read the transcript of my testimony dated 4/4/2022 and that the transcript of my testimony is accurate with the following corrections:

Page	Line	Error	Correction	Reason
49	20	"identity"	"idea"	Incorrect word
109-10	24-1	"that is being positive"	Remove words	Incorrect insertion
153	6, 18	"team"	"teen"	Incorrect word
190	5	"cause"	"pause"	Incorrect word
280	21	"nine people"	"twenty-two people"	Incorrect number
33	14	"reported"	"report"	incorrect word
85	17	"Ulson"	"Olson"	incorrect word
147	20	"precise"	"imprecise"	incorrect word
149	5	"provision"	"revision"	incorrect word
166	8	"performance"	"informants"	incorrect word
310	19	"ceiling"	"floor"	incorrect word
324	20	"gender disorder"	:gender identity disorder"	missing word
333	19	"attestable"	"a testable"	misspelling

Are there additional corrections on a following page? X NO __ YES

Signature of Deponent/Affiant

Sworn to and subscribed before me, a Notary Public, on this

9th day of May, 20 22.

Notary Public

OFFICIAL SEAL
ALEXANDER RODRIGUEZ
NOTARY PUBLIC, STATE OF ILLINOIS
My Commission Expires JUN.07, 2023

SARGENT'S COURT REPORTING SERVICE, INC. 210 Main Street Johnstown, PA 15901 814-536-8908 www.sargents.com

ERRATA SHEET

AFFIDAVIT
State of Pennsylvania
County of _____

I, Mary Fry, PhD , certify under oath or affirmation that I have read the transcript of my testimony dated 3/29/2022 and that the transcript of my testimony is accurate with the following corrections:

Page	Line	Error	Correction	Reason
18	15	transathlete	trans athlete	transcription error
21	9	that what was	that was	transcription error
31	15	considering them	considering that	transcription error
35	14	male and female	male or female	transcription error
36	13	I think term	I think the term	transcription error
36	24	there is people	there are people	transcription error
37	3	it is is not	it is not	transcription error
39	4	than	then	transcription error
42	20	by the fact	by in fact	transcription error
49	21	there was big	there were big	transcription error
51	22	there is huge	there are huge	transcription error
52	16	specifically	specific	transcription error
61	22	task in	task and	transcription error
63	20	youth support	youth sport	transcription error
64	23	score psychology	sports psychology	transcription error
69	22	I think there is	I think there are	transcription error

Are there additional corrections on a following page? __ NO X YES

Signature of Deponent/Affiant Mary Fry

Sworn to and subscribed before me, a Notary Public, on this

28th day of April, 20 22.

Brittany Shawntey Goodman
Notary Public

BRITTANY SHAWNTEY GOODMAN
ELECTRONIC NOTARY PUBLIC
REG # 7825803
EXPIRES 7/31/2023
COMMONWEALTH OF VIRGINIA

SARGENT'S COURT REPORTING SERVICE, INC. 210 Main Street Johnstown, PA 15901 814-536-8908 www.sargents.com

Additional Corrections to the Testimony of Mary Fry, PhD

Page	Line	Error	Correction	Reason
72	23	there is isolated	there are isolated	transcription error
78	5	people come	people did not come	transcription error
81	13	chance to complete	chance to compete	transcription error
89	8	so what if is	so what if it's	transcription error
103	8	International View	International Review	transcription error
120	5	that that's what's	that's what's	transcription error
131	15	tells people	tells people to	transcription error
134	8	promote is the	promote as the	transcription error
154	6	care about performance	care about is performance	transcription error
174	22	transitioning to know transitioning	transitioning to not transitioning	transcription error
176	7	PBJ	BPJ	transcription error
181	13	why would you say	why wouldn't you say	transcription error
189	18	transcend gender	transgender	transcription error
198	7	educational education	educational institution	transcription error
217	17	going to be	going to beat	transcription error
222	4	emersed	immersed	transcription error
243	1	No people	Some people	transcription error
243	17	for the that	for that	transcription error
257	13	that that	that	transcription error

Are there additional corrections on a following page? __ NO ___x___ YES

Deponent's / Affiant's Name: Mary Fry Initials: MF

Page	Line	Error	Correction	Reason
40	6	there's two cross overs	that there are cross overs	transcription error
51	18	say	see	transcription error
57	2	about about	about	transcription error
57	3	say they're	say is they're	transcription error
57	15	I take	I attend	transcription error
58	24	in any female student	adding data with female athletes	transcription error
62	7	because research	because this research	transcription error
63	3	samples athletes	samples of athletes	transcription error
63	6	at least	it leads	transcription error
65	5	late	later	transcription error
66	5	Just someone	I'm just someone	transcription error
70	11	are	were	transcription error
70	14	either caring task involving	either a caring and task-involving	transcription error
71	18	six, seven and eight graders	sixth, seventh, and eight graders	transcription error
75	20	to say	I would say	transcription error
75	23	reap off	reap all	transcription error
76	2	mix of	mix within	transcription error
76	3,4	the team	athletic teams	transcription error
77	9	Medical	Mental	transcription error
78	4, 5	have, for example, people comme and say	I have not, for example, had people come up ar	transcription error
81	4	confidence	competence	transcription error
81	17	hard	hard,	transcription error
82	14	one one	thinking	transcription error
85	24	with the best individual	is an individual sport	transcription error
89	8	is	I'm	transcription error
89	17	lower	lower in ego orientation	transcription error
89	19	win	win,	transcription error
91	2	their	they have an	transcription error
97	6	60 61	6-0, 6-1	transcription error
97	22	your	her	transcription error
111	6	ranking	rankings	transcription error

Are there additional corrections on the following page: No __ Yes _X_

Deponent's / Affiant's Name: ____Mary Fry_____ Initials: _MF__

116	24	stakes	stage	transcription error
117	24	think	know	transcription error
118	2	that NCAA	that the NCAA	transcription error
120	22	focused on just this	focused on, just that this	transcription error
122	2	sports team	being on a sports team	transcription error
123	13	sport exercise	sport and exercise	transcription error
125	13	there	their	transcription error
126	19	specific measurable	specific and measurable	transcription error
127	12	academia from, I'm	from academia, and I'm	transcription error
128	3, 4	work. Early	work early	transcription error
128	24	Somebody didn't	Somebody who didn't	transcription error
129	2	know, what do we think is happening here.	know, "What do we think is happening here?"	transcription error
131	4	there is a reason to try your hardest	now there is a reason to not try your hardest	transcription error
131	15	tells	helps	transcription error
133	7	on 1997	in 1997	transcription error
133	10	those are my my dissertation studies	that was my dissertation study	transcription error
136	8	caring task-involving	caring and task-involving	transcription error
137	12	are running	are not running	transcription error
138	18	terms	skills	transcription error
144	9	is task	is for task	transcription error
145	20	morbid	normative	transcription error
145	9	far things	far as	transcription error
145	20	in orientation	in ego orientation	transcription error
148	6	Small	Smoll	transcription error
148	12	Small	Smoll	transcription error
148	13	crosses documents	?he proposition crosses documents	transcription error
148	15	150 references probably. Tried	150 references probably, but we tried	transcription error
154	3	perceptions on an	perceptions of an	transcription error
154	14	traits	trait	transcription error
156	15, 16	but what I'm feeling about it is	?ut the feeling I prioritize is that helping people	transcription error
175	10	to not hold a category	to hold a category	transcription error
178	22	than	and	transcription error

Are there additional corrections on the following page: No __ Yes _X_

Deponent's / Affiant's Name: ____Mary Fry_____ Initials: _MF__

182	6	an indifference	a difference	transcription error
189	18	transcend gender	is not just transgender	transcription error
192	15	They	I	transcription error
192	22	write	rate	transcription error
197	6	evaluate	value	transcription error
201	23	in use for a	every	transcription error
210	2	are the best postion	are in the best position	transcription error
220	23	be it	to both	transcription error
237	22	evaluate	demonstrate	transcription error

Are there additional corrections on the following page: No _X_ Yes __

Deponent's / Affiant's Name: ____Mary Fry_____ Initials: _MF__

ERRATA SHEET

AFFIDAVIT
State of West Virginia
County of Harrison

I, BPJ, certify under oath or affirmation that I have read the transcript of my testimony dated 1/21/2022 and that the transcript of my testimony is accurate with the following corrections:

Page	Line	Error	Correction	Reason
25	8	I refer myself	I refer to myself	Typographical error
45	20	decisions what happens	decisions of what happens	Typographical error
51	4	mute to	mute too	Typographical error
72	8	B, C D?	B, C, D?	Typographical error
78	17	get metals in those?	get medals in those?	Typographical error
95	3	before that can became	before that can become	Typographical error
98	5	you half an	you have an	Typographical error
109	24	meaning about it.	mean about it	Typographical error
115	4	11-year0old	11-year-old	Typographical error
134	19	treated your	treated you	Typographical error

Are there additional corrections on a following page? X NO YES

Signature of Deponent/Affiant B. P. Jr

Sworn to and subscribed before me, a Notary Public, on this

OFFICIAL SEAL
STATE OF WEST VIRGINIA
NOTARY PUBLIC
Zaki Michaels
PO Box 3952, Charleston, WV 25339
My Commission Expires 01/03/2027

24th day of February, 2022

Notary Public - Zaki Michaels

Armistead Supp. App. 0847

IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF WEST VIRGINIA
CHARLESTON DIVISION

B.P.J., by her next friend and mother, HEATHER JACKSON,

Plaintiff,

v.

WEST VIRGINIA STATE BOARD OF EDUCATION, **HARRISON COUNTY BOARD OF EDUCATION**, *et al.*,

Defendants,

and

LAINEY ARMISTEAD,

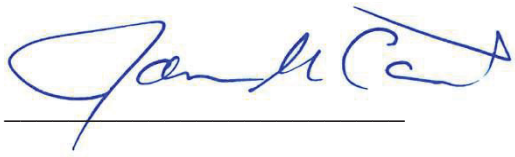
Defendant-Intervenor.

Civil Action No: 2:21-cv-00316

THE HONORABLE
JOSEPH R. GOODWIN

DECLARATION OF JAMES M. CANTOR, PHD.

I, Dr. James Cantor, pursuant to 28 U.S. Code § 1746, declare under penalty of perjury under the laws of the United States of America that the facts contained in my Expert Report of James M. Cantor, Ph.D., in the Case of *B.P.J. v. West Virginia State Board of Education*, dated February 23, 2022, attached hereto, are true and correct to the best of my knowledge and belief, and that the opinions expressed therein represent my own expert opinions.



Executed February 23, 2022

Dr. James M. Cantor, PhD.

Expert Report of

James M. Cantor, PhD.

In the case of *B.P.J. vs. West Virginia State Board of Education*.

February 23, 2022

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I. Background & Credentials

1. I am a clinical psychologist and Director of the Toronto Sexuality Centre in Canada. For my education and training, I received my Bachelor of Science degree from Rensselaer Polytechnic Institute, where I studied mathematics, physics, and computer science. I received my Master of Arts degree in psychology from Boston University, where I studied neuropsychology. I earned my Doctoral degree in psychology from McGill University, which included successfully defending my doctoral dissertation studying the effects of psychiatric medication and neurochemical changes on sexual behavior, and included a clinical internship assessing and treating people with a wide range of sexual and gender identity issues.

2. Over my academic career, my posts have included Psychologist and Senior Scientist at the Centre for Addiction and Mental Health (CAMH) and Head of Research for CAMH's Sexual Behaviour Clinic, Associate Professor of Psychiatry on the University of Toronto Faculty of Medicine, and Editor-in-Chief of the peer reviewed journal, *Sexual Abuse*. That journal is one of the top-impact, peer-reviewed journals in sexual behavior science and is the official journal of the Association for the Treatment of Sexual Abusers. In that appointment, I was charged to be the final arbiter for impartially deciding which contributions from other scientists in my field merited publication. I believe that appointment indicates not only my extensive experience evaluating scientific claims and methods, but also the faith put in me by the other scientists in my field. I have also served on the Editorial Boards of the *Journal of Sex Research*, the *Archives of Sexual Behavior*, and *Journal of Sexual Aggression*. Thus, although I cannot speak for other scientists, I regularly interact with and am routinely exposed to the views and opinions of most of the scientists active in our field today, within the United States and throughout the world.

3. My scientific expertise spans the biological and non-biological development of human sexuality, the classification of sexual interest patterns, the assessment and

treatment of atypical sexualities, and the application of statistics and research methodology in sex research. I am the author of over 50 peer-reviewed articles in my field, spanning the development of sexual orientation, gender identity, hypersexuality, and atypical sexualities collectively referred to as *paraphilias*. I am the author of the past three editions of the gender identity and atypical sexualities chapter of the *Oxford Textbook of Psychopathology*. These works are now routinely cited in the field and are included in numerous other textbooks of sex research.

4. I began providing clinical services to people with gender dysphoria in 1998. I trained under Dr. Ray Blanchard of CAMH and have participated in the assessment of treatment of over one hundred individuals at various stages of considering and enacting both transition and detransition, including its legal, social, and medical (both cross-hormonal and surgical) aspects. My clinical experience includes the assessment and treatment of several thousand individuals experiencing other atypical sexuality issues. I am regularly called upon to provide objective assessment of the science of human sexuality by the courts (prosecution and defense), professional media, and mental health care providers.

5. I have served as an expert witness in a total of 14 cases, which are listed in my *curriculum vitae*, attached here as Appendix 1, which includes a list of cases in which I have recently testified.

6. A substantial proportion of the existing research on gender dysphoria comes from two clinics, one in Canada and one in the Netherlands. The CAMH gender clinic (previously, Clarke Institute of Psychiatry) was in operation for several decades, and its research was directed by Dr. Kenneth Zucker. I was employed by CAMH between 1998 and 2018. I was a member of the hospital's adult forensic program. However, I was in regular contact with members of the CAMH child psychiatry program (of which Dr. Zucker was a member), and we collaborated on multiple projects.

7. For my work in this case, I am being compensated at the hourly rate of $400 per hour. My compensation does not change based on the conclusions and opinions that I provide here or later in this case or on the outcome of this lawsuit.

II. Introduction

8. The principal opinions that I offer and explain in detail in this report are:

a. Biological sex is a clear, scientifically valid, and well-defined category. The existence of disorders of sexual development in an extremely small proportion of individuals does not change this.

b. Neither early-onset (childhood) gender dysphoria nor adolescent-onset gender dysphoria can be assumed to reflect a fixed aspect of a person's psychological make-up or self-perception.

c. No study has demonstrated that "affirming" the transgender identity of a child or adolescent produces better mental health outcomes or reduced suicidality relative to psychotherapy and mental health support.

d. On the contrary, the contemporary studies have failed to find improved mental health in teens and young adults after administration of puberty blockers and/or cross-sex hormones.

e. e) Affirmation of a transgender identity in minors who suffer from early-onset or adolescent-onset gender dysphoria is not an accepted "standard of care."

In addition, I have been asked to provide an expert opinion on how relevant professional organizations have addressed these questions and whether any of them have taken any meritorious position that would undermine West Virginia's Protect Women's Sports Act (H.B. 3292) ("Act"). As I explain in detail in this report, it is my opinion that Plaintiffs' expert reports display a wide variety of flaws that call their conclusions into question and that no professional organization has articulated a meritorious position that calls into question the basis for the Act.

9. To prepare the present report, I reviewed the following resources related to this litigation:

a. West Virginia's Protect Women's Sports Act, H.B. 3293.

b. The Amended Complaint in this litigation.

c. Ms. Armistead's Declaration, Doc. 95-1.

d. Declaration and Expert Report of Deanna Adkins, MD.

e. Expert Report and Declaration of Joshua D. Safer, MD, FACP, FACE.

III. Clarifying Terms

10. Most scientific discussions begin with the relevant vocabulary and definitions of terms. In the highly polarized and politicized debates surrounding transgender issues, that is less feasible: Different authors have used terms in differing, overlapping ways. Activists and the public (especially on social media) will use the same terms, but to mean different things, and some have actively misapplied terms so that original documents appear to assert something they do not.

11. "Gender expression" is one such term. For another example, the word "child" is used in some contexts to refer specifically to children before puberty; in some contexts, to refer to children before adolescence (thus including ages of puberty); in still other contexts, to refer to people under the legal age of consent, which is age sixteen in the Netherlands (where much of the research was conducted) or age eighteen in much of North America. Thus, care should be taken in both using and interpreting the word "child" in this field.

12. Because the present document is meant to compare the claims made by others, it is the definitions used by those specific authors in those specific contexts which are relevant. Thus, definitions to my own uses of terms are provided where appropriate, but primarily explicate how terms were defined and used in their original contexts.

IV. Evidence Cited by Plaintiffs' Expert Reports

13. Dr. Adkins claimed a person's gender identity cannot be voluntarily changed. In actual clinical practice, that is rarely the relevant issue. The far more typical situation is youth who are *mistaken* about their gender identity. These youth are misinterpreting their experiences to indicate they are transgender, or they are exaggerating their descriptions of their experiences in service of attention-seeking or other psychological needs. Dr. Adkins' claim is not merely lacking any science to support it; the claim itself defies scientific thinking. In science, it is not possible to know that gender identity cannot be changed: We can know only that we lack evidence of such a procedure. In the scientific method, it remains eternally possible for evidence of such a treatment to emerge, and unlike sexual orientation's long history with conversion therapy, there have not been systematic attempts to change gender identity.

14. Dr. Adkins claimed that untreated gender dysphoria can result in several mental health issues, including suicidality. The relevant research on suicidality is summarized in its own section to follow. Nonetheless, Dr. Adkins' claim is a misleading half-truth: Missing is that people with gender dysphoria continue to experience those mental health symptoms even after they do transition, including a 19 times greater risk of death from suicide.[1] This is why clinical guidelines repeatedly indicate that mental health issues should be resolved *before* any transition, as indicated in multiple sets of clinical guidelines, summarized in their own section to follow. As emphasized even by authorities Dr. Adkins cites herself: Transition should not be relied upon itself to improve mental health status.

15. Adkins' support for the claim that untreated gender dysphoria lessens mental health consisted of two articles: Olson, *et al.* (2016) and Spack (2012). Such is a terrible misrepresentation of the state of the scientific literature. Although Olson,

[1] Dhejne, *et al.*, 2011.

et al., did indeed report that gender dysphoric children showed no mental health differences from the non-transgender control groups, Olson's report turned out to be incorrect. The Olson data were reanalyzed, and after correcting for statistical errors in the original analysis, the data instead showed that the gender dysphoric children under Olson's care *did,* in fact, exhibit significantly lower mental health.[2]

16. I conducted an electronic search of the research literature to identify any responses from the Olson team regarding the Schumm and Crawford re-analysis of the Olson data and was not able to locate any. I contacted Professor Schumm by email on August 22, 2021 to verify that conclusion, to which he wrote there has been: "No response [from Olson]."[3]

17. Adkins also misrepresented the views of Dr. Norman Spack. The article Adkins cited—Spack, 2012—repeatedly emphasized that children with gender dysphoria exhibit very many symptoms of mental illnesses. Spack asserted unambiguously that "Gender dysphoric children who do not receive *counseling* have a high risk of behavioural and emotional problems and psychiatric diagnoses."[4] The wording of Dr. Adkins' report ("gender dysphoria . . . if left untreated") misrepresents Spack so as to suggest Spack was advocating for medical transition to treat the gender dysphoria rather than counseling to treat suicidality and any other mental health issues. Moreover still, missing from Adkins' report was Spack's conclusion that "[m]ental health intervention should persist for the long term, even after surgery, *as patients continue to be at mental health risk, including for suicide.* While the causes of suicide are multifactorial, the possibility cannot be ruled out that some patients unrealistically believe that surgery(ies) solves their psychological distress."[5] Whereas

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2 Schumm & Crawford, 2020; Schumm, *et al.*, 2019.
3 Schumm, email communication, Aug. 22, 2021 (on file with author).
4 Spack, *et al.,* 2012, at 422, italics added.
5 Spack, *et al.,* 2013, at 484, italics added

Adkins (selectively) cited Spack to support her insinuation that transition relieves distress, Spack instead explicitly warned against drawing exactly that conclusion.

18. Next, Adkins claimed to have achieved levels of success in her professional clinical practice unlike those reported by anyone anywhere else in the world: "All of my patients have suffered from persistent gender dysphoria, which has been alleviated through clinical appropriate treatment."[6] It is difficult to evaluate such a bold self-assessment of success. No clinic has published success rates even approximating this. By contrast, the peer-reviewed research literature repeatedly indicates that clients misrepresent themselves to their care-providers, engaging in "image management" so as to appear as having better mental health than they actually do.[7] In the absence of objective evidence, it is not possible to differentiate Adkins' claims of success from the simpler explanation that she and her patients are telling each other what they want and expect to hear.

19. Adkins referred to the clinical practice guidelines (CPG's) of three professional societies: the American Association of Pediatrics (AAP), the World Professional Association for Transgender Health (WPATH), and the Endocrine Society. This provides only an incomplete and inaccurate portrayal of the field. I am aware of six rather than three professional societies providing clinical guidelines for the care of gender dysphoric children. They are detailed more fully in their own section of this report. Nonetheless, with the broad exception of the AAP, their statements repeatedly noted:

- Desistance of gender dysphoria occurs in the majority of prepubescent children.
- Mental health issues need to be assessed as potentially contributing factors and need to be addressed before transition.
- Puberty-blocking medication is an experimental, not a routine, treatment.

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6 Adkins Report at 5.
7 Anzani, *et al.*, 2020; Lehmann, *et al.*, 2021.

- Social transition is not generally recommended until after puberty.

Although some other associations have published broad statements of moral support for sexual minorities and against discrimination, they did not include any specific standards or guidelines regarding medical- or transition-related care.

20. Although Adkins referred to them as "widely accepted," the WPATH and the Endocrine Society guidelines have both been subjected to standardized evaluation, the Appraisal of Guidelines for Research and Evaluation ("AGREE II") method, as part of an appraisal of all published CPGs regarding sex and gender minority healthcare.[8] Utilizing community stakeholders to set domain priorities for the evaluation, the assessment concluded that the guidelines regarding HIV and its prevention were of high quality, but that "[t]ransition-related CPGs tended to lack methodological rigour and rely on patchier, lower-quality primary research."[9] Neither the Endocrine Society's or WPATH's guidelines were recommended for use. Indeed, the WPATH guidelines received unanimous ratings of "Do not recommend."[10]

21. Immediately following the publication of the AAP policy, I conducted a point-by-point fact-check of the claims it asserted and the references it cited in support. I submitted that to the *Journal of Sex & Marital Therapy*, a well-known research journal of my field, where it underwent blind peer review and was published. I append that article as part of this report. *See* Appendix 2. A great deal of published attention ensued; however, the AAP has yet to respond to the errors I demonstrated its policy contained. Writing for *The Economist* about the use of puberty blockers, Helen Joyce asked AAP directly, "Has the AAP responded to Dr Cantor? If not, have you any response now?" The AAP Media Relations Manager, Lisa Black, responded: "We do not have anyone available for comment."

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[8] Dahlen, *et al.,* 2021.
[9] Dahlen, *et al.*, 2021, at 6.
[10] Dahlen, *et al.,* 2021, at 7.

22. Finally, the clinical guidelines from all these associations have become largely outdated. As detailed in the *Studies of Transition Outcomes* section of this report, there was some reason, circa 2010, to expect positive outcomes among children who transition, owing to optimistic findings reported from the Netherlands.[11] Early positive findings, however, have been retracted after statistical errors were identified,[12] or shown to be more attributable to mental health counseling rather than to medical transition.[13] The professional societies' statements were produced during that earlier phase.

23. In contrast with these U.S.-based associations, public healthcare systems throughout the world have instead been withdrawing their earlier support for childhood transition, responding to the increasingly recognized risks associated with hormonal interventions and the now clear lack of evidence that medical transition was benefitting most children, as opposed to the mental health counseling accompanying transition. These have included Sweden[14, 15], Finland[16, 17], and the United Kingdom[18], and the Royal Australian and New Zealand College of Psychiatrists.[19]

24. Adkins repeatedly claimed success on the basis of what her patients tell her. In the absence of any systematic method, however, it is not possible to evaluate to what extent such a conclusion reflects human recall bias, cases of negative outcomes dropping out of treatment thus becoming invisible to Adkins, the aforementioned impression management efforts of clients, psychotherapy that they were receiving at the same time, or simple maturation during which the patients

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11 de Vries, et al., 2011.
12 Kalin, 2020.
13 c.f., Carmichael, *et al.,* 2021; Biggs, 2019; Biggs, 2020.
14 Swedish Agency of Health Technology Assessment and Assessment of Social Services, 2019.
15 Nainggolan, 2021.
16 Finland Ministry of Social Affairs and Health, Council for Choices in Health Care, 2020, June 11.
17 Finland Ministry of Social Affairs and Health, Council for Choices in Health Care, 2020, June 16.
18 United Kingdom National Health Service (NHS), 2021, March 11.
19 McCall, 2021.

would have experienced improved mental health regardless of transition. Indeed, the very purpose of engaging in systematic, peer-reviewed research instead of relating anecdotal recollections is to rule out exactly these biases.

25. Adkins referred to disorders of sexual development (DSDs) and intersex variations to claim that the very notion of there being two sexes is inherently flawed (*i.e.*, challenging "singular biological sex"). Although they both potentially involve medical alteration of genitalia, these are not comparable issues. DSDs and intersex conditions develop before birth, and objective medical testing is capable of confirming diagnoses. Her claims not only misrepresent the research literature on DSDs, but also failed to engage the relevant scientific concept, "construct validity." Adkins claimed DSD prevalences of 1 in 1000 live births and 1 in 300 people in the world (Adkins Report at 11), leaving unclear how there could be a larger proportion of such people living in the world than are born in the first place. The scientific literature, however, shows that DSDs are much rarer than this[20] and that the very large majority of DSDs are the hypospadias—mislocations of the urethra on the penis.[21] Because of the biological processes involved in causing them, hypospadias are classified as disorders of sexual development. That some boys are born with mislocated urethra is falsely taken by Adkins to demonstrate that 'there are more than just boys and girls'.

26. Overall, Adkins' argument was that, because there exist exceptions among features which distinguish male from female, the distinction itself is entirely moot. Although she did not use the term, Adkins is claiming that the existence of these exceptions demonstrates that sex lacks "construct validity." Her argument does not, however, follow from how construct validity is determined in science—very many scientific classification systems include exceptions. Scientific constructs are not

[20] Sax, 2002.
[21] Bancroft, 2009.

determined by any one of the components it reflects, in this case being each of the sex chromosomes, sex hormones, sexually dimorphic genitalia, etc. Rather, such constructs are represented by the generalizable interrelationships among its multiple components. Notwithstanding exceptions in an individual component in an individual case, the interrelationships among the network of components remains intact. The existence of people born with a clubfoot or undeveloped leg does not challenge the classification of humans as a bipedal species.

27. Similarly to Dr. Adkins, Dr. Safer claimed that "gender identity is durable and cannot be changed by medical intervention," providing no evidence or reference to the research literature. It is not at all apparent upon what basis such a statement about durability can be made, however. It has been the unanimous conclusion of every follow-up study of gender dysphoric children ever conducted, not only that gender identity does change, but also that it changes in the large majority of cases, as documented below. This is, of course, very different from what is reported by transgender adults—they are the very people for whom gender dysphoria did endure. Regarding responses to clinical intervention, I am not aware of, and Safer did not cite any research reports of medical interventions attempting to change gender identity, regardless of outcome. It is not clear whether Safer intended this comment to apply also to psychological/non-medical interventions.

V. Evidence Missing from Plaintiffs' Expert Reports

28. One of the most widespread public misunderstandings about transsexualism and people with gender dysphoria is that all cases of gender dysphoria represent the same phenomenon; however, the clinical science has long and consistently demonstrated that gender dysphoric children (cases of *early-onset* gender dysphoria) do not represent the same phenomenon as adult gender dysphoria

(cases of *late-onset* gender dysphoria),[22] merely attending clinics at younger ages. That is, gender dysphoric children are not simply younger versions of gender dysphoric adults. They differ in every known regard, from sexual interest patterns, to responses to treatments. A third presentation has recently become increasingly observed among people presenting to gender clinics: These cases appear to have an onset in adolescence in the absence of any childhood history of gender dysphoria. Such cases have been called adolescent-onset or "rapid-onset" gender dysphoria (ROGD).

29. In the context of school athletics, the adult-onset phenomenon would not seem relevant; however, very many public misunderstandings and expert misstatements come from misattributing evidence or personal experience from one of these types to the other. For example, there exist only very few cases of transition regret among adult transitioners, whereas the research has unanimously shown that the majority of children with gender dysphoria desist—that is, cease to experience such dysphoria by or during puberty. A brief summary of the adult-onset phenomenon is included, to facilitate distinguishing features which are unique to childhood gender dysphoria.

A. Adult-Onset Gender Dysphoria

30. People with adult-onset gender dysphoria typically attend clinics requesting transition services in mid-adulthood, usually in their 30s or 40s. Such individuals are nearly exclusively male.[23] They typically report being sexually attracted to women and sometimes to both men and women. Some cases profess asexuality, but very few indicate any sexual interest in or behavior involving men.[24] Cases of adult-onset gender dysphoria are typically associated with a sexual interest pattern (medically, a *paraphilia*) involving themselves in female form.[25]

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22 Blanchard, 1985.
23 Blanchard, 1990, 1991.
24 Blanchard, 1988.
25 Blanchard 1989a, 1989b, 1991.

1. Outcome Studies of Transition in Adult-Onset Gender Dysphoria

31. Clinical research facilities studying gender dysphoria have repeatedly reported low rates of regret (less than 3%) among adult-onset patients who underwent complete transition (*i.e.*, social, plus hormonal, plus surgical transition). This has been widely reported by clinics in Canada,[26] Sweden,[27] and the Netherlands.[28]

32. Importantly, each of the Canadian, Swedish, and Dutch clinics for adults with gender dysphoria all performed "gate-keeping" procedures, disqualifying from medical services people with mental health or other contraindications. One would not expect the same results to emerge in the absence of such gate-keeping or when gate-keepers apply only minimal standards or cursory assessment.

2. Mental Health Issues in Adult-Onset Gender Dysphoria

33. The research evidence on mental health issues in gender dysphoria indicates it to be different between adult-onset versus adolescent-onset versus prepubescent-onset types. The co-occurrence of mental illness with gender dysphoria in adults is widely recognized and widely documented.[29] A research team in 2016 published a comprehensive and systematic review of all studies examining rates of mental health issues in transgender adults.[30] There were 38 studies in total. The review indicated that many studies were methodologically weak, but nonetheless concluded (1) that rates of mental health issues among people are highly elevated both before and after transition, (2) but that rates were less elevated among those who completed transition. Analyses were not conducted in a way so as to compare the elevation in mental health issues observed among people newly attending clinics to improvement after transition. Also, several studies showed more than 40% of patients

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26 Blanchard, *et al.*, 1989.
27 Dhejneberg, *et al.*, 2014.
28 Wiepjes, *et al.*, 2018.
29 *See, e.g.*, Hepp, *et al.*, 2005.
30 Dhejne, *et al.*, 2016.

becoming "lost to follow-up." With attrition rates that high, it is unclear to what extent the information from the available participants genuinely reflects the whole sample. The very high "lost to follow-up" rate leaves open the possibility of considerably more negative results overall.

34. An important caution applies to interpreting these results: These very high proportions of mental health issues come from people who are attending a clinic for the first time and are undergoing assessment. Clinics serving a "gate-keeper" role divert candidates with mental health issues away from medical intervention. The side-effect of removing these people from the samples of transitioners is that if a researcher compared the average mental health of individuals coming into the clinic with the average mental health of individuals going through medical transition, then the post-transition group would appear to show a substantial improvement, even though transition had *no effect at all*: The removal of people with poorer mental health created the statistical illusion of improvement among the remaining people.

35. The long-standing and consistent finding that gender dysphoric adults have high rates of mental health issues both before and after transition and the finding that those mental health issues cause the gender dysphoria (the epiphenomenon) rather than the other way around indicate a critical point: To the extent that gender dysphoric children resemble adults, we should not expect mental health to improve as a result of transition. Mental health issues should be resolved before any transition.

B. Childhood Onset (Pre-Puberty) Gender Dysphoria

1. Prospective Studies of Childhood-Onset Gender Dysphoria Show that Most Children Desist in the "Natural Course" by Puberty

36. The large majority of childhood onset cases of gender dysphoria occur in biological males, with clinics reporting 2–6 biological male children to each female.[31]

37. Prepubescent children (and their parents) have been approaching mental health professionals for help with their unhappiness with their sex and belief they would be happier living as the other for many decades. Projects following-up and reporting on such cases began being published in the 1970s, with subsequent generations of research employing increasingly sophisticated methods studying the outcomes of increasingly large samples. In total, there have now been a total of 11 such outcomes studies. *See* the appendix to Appendix 2 (listing these studies).

38. In sum, despite coming from a variety of countries, conducted by a variety of labs, using a variety of methods, all spanning four decades, every study without exception has come to the identical conclusion: Among prepubescent children who feel gender dysphoric, the majority cease to want to be the other gender over the course of puberty—ranging from 61–88% desistance across the large, prospective studies. Such cases are often referred to as "desisters," whereas children who continue to feel gender dysphoria are often called "persisters."

39. Notably, in most cases, these children were receiving professional psychosocial support across the study period aimed not at affirming cross-gender identification, but at resolving stressors and issues potentially interfering with desistance. While beneficial to these children and their families, the inclusion of therapy in the study protocol represents a complication for the interpretation of the results: That is, it is not possible to know to what extent the observed outcomes (predominant desistance, with a small but consistent occurrence of persistence) were

[31] Cohen-Kettenis, *et al.*, 2003; Steensma, *et al.,* 2018; Wood, *et al.*, 2013.

influenced by the psychosocial support, or would have emerged regardless. It can be concluded only that prepubescent children who suffer gender dysphoria and receive psychosocial support focused on issues other than "affirmation" of cross-gender identification do in fact desist in suffering from gender dysphoria, at high rates, over the course of puberty.

40. While the absolute number of those who present as prepubescent children with gender dysphoria and "persist" through adolescence is very small in relation to the total population, persistence in some subjects was observed in each of these studies. Thus, the clinician cannot take either outcome for granted.

41. It is because of this long-established and invariably consistent research finding that desistance is probable, but not inevitable, that the "watchful waiting" method became the standard approach for assisting gender dysphoric children. The balance of potential risks to potential benefits is very different for groups likely to desist versus groups unlikely to desist: If a child is very likely to persist, then taking on the risks of medical transition might be more worthwhile than if that child is very likely to desist in transgender feelings.

42. The consistent observation of high rates of desistance among pre-pubertal children who present with gender dysphoria demonstrates a pivotally important—yet often overlooked—feature: because gender dysphoria so often desists on its own, clinical researchers cannot assume that therapeutic intervention cannot facilitate or speed desistance for at least some patients. Such is an empirical question, and there has not yet been any such study.

43. It is also important to note that research has not yet identified any reliable procedure for discerning which children who present with gender dysphoria will persist, as against the majority who will desist, absent transition and "affirmation." Such a method would be valuable, as the more accurately that potential persisters can be distinguished from desisters, the better the risks and benefits of options can

be weighted. Such "risk prediction" and behavioral "test construction" are standard components of applied statistics in the behavioral sciences. Multiple research teams have reported that, on average, groups of persisters are somewhat more gender non-conforming than desisters, but not so different as to usefully predict the course of a particular child.[32]

44. In contrast, a single research team, led by Dr. Kristina Olson, claimed the opposite, asserting to have developed a method of distinguishing persisters from desisters, using a single composite score representing a combination of children's "peer preference, toy preference, clothing preference, gender similarity, and gender identity."[33] That team reported a statistical association (mathematically equivalent to a correlation) between that composite score and the probability of persistence. As they described their result, "Our model predicted that a child with a gender-nonconformity score of .50 would have roughly a .30 probability . . . of socially transitioning. By contrast, a child with gender-nonconformity score of .75 would have roughly a .48 probability."[34] Although the authors declared that "social transitions may be predictable from gender identification and preferences,"[35] their actual results suggest the opposite: The gender-nonconforming group who went on to transition (socially) had a mean composite score of .73 (which is less than .75), and the gender-nonconforming group who did not transition had a mean composite score of .61, also less than .75.[36] Both of those are lower than the value of .75, so both of those would be more likely than not to desist, rather than to proceed to transition. Thus, Olson's model does not distinguish likely from unlikely to transition; rather, it distinguishes unlikely from even less likely to transition.

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32 Singh, *et al.* (2021); Steensma *et al.*, 2013.
33 Rae, *et al.*, 2019, at 671.
34 Rae, *et al.*, 2019, at 673.
35 Rae, *et al.*, 2019, at 669.
36 Rae, *et al.*, 2019, Supplemental Material at 6, Table S1, bottom line.

45. Although it remains possible for some future finding to yield a method to identify with sufficient accuracy which gender dysphoric children will persist, there does not exist such a method at the present time. Moreover, in the absence of long-term follow-up, it cannot be known what proportions come to regret having transitioned and then *de*transition. Because only a minority of gender dysphoric children persist in feeling gender dysphoric in the first place, "transition-on-demand" increases the probably of unnecessary transition and unnecessary medical risks.

2. "Watchful Waiting" and "The Dutch Approach"

46. It was this state of the science—that the majority of prepubescent children will desist in their feelings of gender dysphoria and that we lack an accurate method of identifying which children will persist—that led to the development of a clinical approach, often called "The Dutch Approach" (referring to The Netherlands clinic where it was developed) including "Watchful Waiting" periods. Internationally, the Dutch Approach is currently the most widely respected and utilized method for treatment of children who present with gender dysphoria.

47. The purpose of these methods was to compromise the conflicting needs among: clients' desires upon assessment, the long-established and repeated observation that those preferences will change in the majority of (but not all) childhood cases, and that cosmetic aspects of medical transition are perceived to be better when they occur earlier rather than later.

48. The Dutch Approach (also called the "Dutch Protocol") was developed over many years by the Netherlands' child gender identity clinic, incorporating the accumulating findings from their own research as well as those reported by other clinics working with gender dysphoric children. They summarized and explicated the approach in their peer-reviewed report, *Clinical management of gender dysphoria in children and adolescents: The Dutch Approach* (de Vries & Cohen-Kettenis, 2012).

The components of the Dutch Approach are:

- no social transition at all considered before age 12 (watchful waiting period),
- no puberty blockers considered before age 12,
- cross-sex hormones considered only after age 16, and
- resolution of mental health issues before any transition.

49. For youth under age 12, "the general recommendation is watchful waiting and carefully observing how gender dysphoria develops in the first stages of puberty."[37]

50. The age cut-offs of the Dutch Approach authors were not based on any research demonstrating their superiority over other potential age cut-off's. Rather, they were chosen to correspond to ages of consent to medical procedures under Dutch law. But whatever their original rationale, the data from this clinic simply contains no information about safety or efficacy of these measures at younger ages.

51. The authors of the Dutch Approach repeatedly and consistently emphasize the need for extensive mental health assessment, including clinical interviews, formal psychological testing with validated psychometric instruments, and multiple sessions with the child and the child's parents.

52. Within the Dutch approach, there is no social transition before age twelve. That is, social affirmation of the new gender may not begin until age 12—as desistance is less likely to occur past that age. "Watchful Waiting" refers to a child's developmental period up to that age. Watchful waiting does not mean do nothing but passively observe the child. Such children and families typically present with substantial distress involving both gender and non-gender issues. It is during the watchful waiting period that a child (and other family members as appropriate) would undergo therapy, resolving other issues which may be exacerbating psychological stress or dysphoria. As noted by the Dutch clinic, "[T]he adolescents in this study received extensive family or other social support . . . [and they] were all regularly

[37] de Vries & Cohen-Kettenis, 2012, at 301.

seen by one of the clinic's psychologists or psychiatrists."[38] One is actively treating the person, while carefully "watching" the dysphoria.

53. The inclusion of psychotherapy and support during the watchful waiting period is, clinically, a great benefit to the gender dysphoric children and their parents. The inclusion of psychotherapy and support poses a scientific complication, however: It becomes difficult to know to what extent the outcomes of these cases might be related to receiving psychotherapy received versus being "spontaneous" desistance, which would have occurred on its own anyway. This situation is referred to in science as a "confound."

3. Studies of Transition Outcomes: Overview

54. Very many strong claims have appeared in the media and on social media asserting that transition results in improved mental health or, contradictorily, in decreased mental health. In the highly politicized context of gender and transgender research, many authors have cited only the findings which appear to support one side, cherry-picking from the complete set of research reports. Seemingly contradictory findings are common in science with on-going research projects. When considered together, however, the full set of relevant reports show that a coherent pattern and conclusion has emerged over time, as detailed in the following sections. Initial optimism was suggested by reports of improvements in mental health.[39] Upon continued analysis, these seeming successes turned out to be illusory, however: The Bränström and Pachankis (2019) finding has been retracted.[40] The greater mental health among transitioners reported by Costa, *et al.* (2015) was noted to be because the control group consisted of cases excluded from hormone eligibility exactly because they showed poor mental health to begin with.[41] The improvements reported by the

[38] de Vries, *et al.*, 2011, at 2280-81.
[39] Bränström & Pachankis 2019; Costa, *et al.*, 2015; de Vries, *et al.*, 2011; de Vries, *et al.*, 2014.
[40] Kalin, 2020.
[41] Biggs, 2019.

de Vries studies from the Dutch Clinic themselves appear genuine; however, because that clinic also provides psychotherapy to all cases receiving puberty-blockers, it remains entirely plausible that the psychotherapy and not the puberty blockers caused the improvements.[42] New studies continued to appear an accelerating rate, repeatedly reporting deteriorations or lacks of improvement in mental health[43] or lack of improvement beyond psychotherapy alone,[44] and other studies continue to report on only the combined effect of both psychotherapy and hormone treatment together.[45]

a. Outcomes of The Dutch Approach (studies from before 2017): Mix of positive, negative, and neutral outcomes

55. The research confirms that some, but not all, adolescents improve on some, but not all, indicators of mental health and that those indicators are inconsistent across studies. Thus, the balance of potential benefits to potential risks differs across cases, and thus suggests different courses of treatment across cases.

56. The Dutch clinical research team followed up 70 youth undergoing puberty suppression at their clinic.[46] The youth improved on several variables upon follow-up as compared to pre-suppression measurement, including depressive symptoms and general functioning. No changes were detected in feelings of anxiety or anger or in gender dysphoria as a result of puberty suppression; however, natal females using puberty suppression suffered *increased* body dissatisfaction both with their secondary sex characteristics and with nonsexual characteristics.[47]

57. As the report authors noted, while it is possible that the improvement on some variables was due to the puberty-blockers, it is also possible that the improvement was due to the mental health support, and it is possible that the

42 Biggs, 2020.
43 Carmichael, *et al.*, 2021; Hisle-Gorman, *et al.*, 2021; Kaltiala, *et al.*, 2020.
44 Achille, *et al.*, 2020.
45 Kuper, *et al.*, 2020; van der Miesen, *et al.*, 2020, at 703.
46 de Vries, *et al.* 2011.
47 Biggs, 2020.

improvement occurred only on its own with natural maturation. So any conclusion that puberty blockers improved the mental health of the treated children is not justified by the data. Because this study did not include a control group (another group of adolescents matching the first group, but *not* receiving medical or social support), these possibilities cannot be distinguished from each other, representing a confound. The authors of the study were explicit in noting this themselves: "All these factors may have contributed to the psychological well-being of these gender dysphoric adolescents."[48]

58. The authors were careful not to overstate the implications of their results, "We *cautiously* conclude that puberty suppression *may be* a valuable *element* in clinical management of adolescent gender dysphoria."[49]

59. Costa, *et al.* (2015) reported on preliminary outcomes from the Tavistock and Portman NHS Foundation Trust clinic in the UK. They compared the psychological functioning of one group of youth receiving psychological support with a second group receiving both psychological support as well as puberty blocking medication. Both groups improved in psychological functioning over the course of the study, but no statistically significant differences between the groups was detected at any point.[50] As those authors concluded, "Psychological support and puberty suppression were both associated with an improved global psychosocial functioning in GD adolescence. Both these interventions may be considered effective in the clinical management of psychosocial functioning difficulties in GD adolescence."[51] Because psychological support does not pose the physical health risks that hormonal interventions or surgery does (such as loss of reproductive function), one cannot justify taking on the greater risks of social transition, puberty blockers or surgery

48 de Vries, *et al.* 2011, at 2281.
49 de Vries, *et al.* 2011, at 2282, italics added.
50 Costa, *et al.*, at 2212 Table 2.
51 Costa, *et al.*, at 2206.

without evidence of such treatment producing superior results. Such evidence does not exist.

b. Clinicians and advocates have invoked the Dutch Approach while departing from its protocols in important ways.

60. The reports of partial success contained in de Vries, *et al.* 2011 called for additional research, both to confirm those results and to search for ways to maximize beneficial results and minimize negative outcomes. Instead, many other clinics and clinicians proceeded on the basis of the positives only, broadened the range of people beyond those represented in the research findings, and removed the protections applied in the procedures that led to those outcomes. Many clinics and individual clinicians have reduced the minimum age for transition to 10 instead of 12. While the Dutch Protocol involves interdisciplinary teams of clinicians, many clinics now rely on a single assessor, in some cases one without adequate professional training in childhood and adolescent mental health. Comprehensive, longitudinal assessments (*e.g.*, one and a half *years*[52]) became approvals after one or two assessment sessions. Validated, objective measures of youths' psychological functioning were replaced with clinicians' subjective (and first) opinions, often reflecting only the clients' own self-report. Systematic recordings of outcomes, so as to allow for detection and correction of clinical deficiencies, were eliminated.

61. Notably, Dr. Thomas Steensma, central researcher of the Dutch clinic, has decried other clinics for "blindly adopting our research" despite the indications that those results may not actually apply: "We don't know whether studies we have done in the past are still applicable to today. Many more children are registering, and also a different type."[53] Steensma opined that "every doctor or psychologist who is involved in transgender care should feel the obligation to do a good pre- and post-test." But few if any are doing so.

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[52] de Vries, *et al.*, 2011.
[53] Tetelepta, 2021.

c. Studies by other clinicians in other countries have failed to reliably replicate the positive components of the results reported by the Dutch clinicians in de Vries et al. 2011.

62. The indications of potential benefit from puberty suppression in at least some cases has led some clinicians to attempt to replicate the positive aspects of those findings. These efforts have not succeeded.

63. The Tavistock and Portman clinic in the U.K. recently released its findings, attempting to replicate the outcomes reported by the Dutch clinic.[54] Study participants were ages 12–15 (Tanner stages 3 for natal males, Tanner 2 for natal females) and were repeatedly tested before beginning puberty-blocking medications and then every six months thereafter. Cases exhibiting serious mental illnesses (*e.g.*, psychosis, bipolar disorder, anorexia nervosa, severe body-dysmorphic disorder unrelated to gender dysphoria) were excluded. Relative to the time point before beginning puberty suppression, there were *no* significant changes in any psychological measure, from either the patients' or their parents' perspective.

64. A multidisciplinary team from Dallas published a prospective follow-up study which included 25 youths as they began puberty suppression.[55] (The other 123 study participants were undergoing cross-sex hormone treatment.) Interventions were administered according to "Endocrine Society Clinical Practice Guidelines."[56] Their analyses found *no statistically significant changes* in the group undergoing puberty suppression on any of the nine measures of wellbeing measured, spanning tests of body satisfaction, depressive symptoms, or anxiety symptoms.[57] (Although the authors reported detecting some improvements, these were only found when the large group undergoing cross-sex hormone treatment were added in.) Although the Dutch

54 Carmichael, *et al.*, 2021.
55 Kuper, *et al.*, 2020, at 5.
56 Kuper, *et al.*, 2020, at 3, referring to Hembree, *et al.*, 2017.
57 Kuper, *et al.*, 2020, at Table 2.

Approach includes age 12 as a minimum for puberty suppression treatment, this team provided such treatment beginning at age 9.8 years (full range: 9.8–14.9 years).[58]

65. Achille, *et al.* (2020) at Stony Brook Children's Hospital in New York treated a sample of 95 youth with gender dysphoria, providing follow-up data on 50 of them. (The report did not indicate how these 50 were selected from the 95.) As well as receiving puberty blocking medications, "Most subjects were followed by mental health professionals. Those that were not were encouraged to see a mental health professional."[59] The puberty blockers themselves "were introduced in accordance with the Endocrine Society and the WPATH guidelines."[60] Upon follow-up, some incremental improvements were noted; however, after statistically adjusting for psychiatric medication and engagement in counselling, "*most predictors did not reach statistical significance*."[61] That is, puberty blockers did not improve mental health any more than did mental health care on its own.

66. In a recent update, the Dutch clinic reported continuing to find improvement in transgender adolescents' psychological functioning, reaching age-typical levels, "after the start of specialized transgender care involving puberty suppression."[62] Unfortunately, because the transgender care method of that clinic involves both psychosocial support and puberty suppression, it cannot be known which of those (or their combination) is driving the improvement. Also, the authors indicate that the changing demographic and other features among gender dysphoric youth might have caused the treated group to differ from the control group in unknown ways. As the study authors themselves noted, "The present study can, therefore, not provide

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58 Kuper, *et al.*, 2020, at 4.
59 Achille, *et al.*, 2020, at 2.
60 Achille, *et al.*, 2020, at 2.
61 Achille, *et al.*, 2020, at 3 (italics added).
62 van der Miesen, *et al.*, 2020, at 699.

evidence about the direct benefits of puberty suppression over time and long-term mental health outcomes."[63]

67. It has not yet been determined why the successful outcomes reported by the Dutch child gender clinic a decade ago failed to emerge when applied by others more recently. It is possible that:

(1) The Dutch Approach itself does *not* work and that their originally successful results were a fluke;

(2) The Dutch Approach *does* work, but only in the Netherlands, with local cultural, genetic, or other unrecognized factors that do not generalize to other countries;

(3) The Dutch Approach itself *does* work, but other clinics and individual clinicians are removing safeguards and adding short-cuts to the approach, and those changes are hampering success.

(4) The Dutch Approach *does* work, but the cause of the improvement is the psychosocial support, rather than any medical intervention, which other clinics are *not* providing.

68. The failure of other clinics to repeat the already very qualified success of the Dutch clinic demonstrates the need for still greater caution before endorsing transition and the greater need to resolve potential mental health obstacles before doing so.

4. Mental Health Issues in Childhood-Onset Gender Dysphoria

69. As shown by the outcomes studies, there is no statistically significant evidence that transition reduces the presence of mental illness among transitioners. As shown repeatedly by clinical guidelines from multiple professional associations, mental health issues are expected or required to be resolved *before* undergoing transition. The reasoning behind these conclusions is that children may be expressing gender dysphoria, not because they are experiencing what gender dysphoric adults report, but because they mistake what their experiences indicate or to what they might lead. For example, a child experiencing depression from social

[63] van der Miesen, *et al.*, 2020, at 703.

isolation might develop hope—and the unrealistic expectation—that transition will help them fit in, this time as and with the other sex.

70. If a child undergoes transition, discovering only then that their mental health or social situations will not in fact change, the medical risks and side-effects (such as sterilization) will have been borne for no reason. If, however, a child resolves the mental health issues first with the gender dysphoria resolving with it (which the research literature shows to be the case in the large majority), then the child need not undergo transition at all, but yet still retains the opportunity to do so later.

71. Elevated rates of multiple mental health issues among gender dysphoric children are reported throughout the research literature. A formal analysis of children (ages 4–11) undergoing assessment at the Dutch child gender clinic showed 52% fulfilled criteria for a DSM axis-I disorder.[64] A comparison of the children attending the Canadian versus Dutch child gender dysphoria clinic showed only few differences between them, but a large proportion in both groups were diagnosable with clinically significant mental health issues. Results of standard assessment instruments (Child Behavior Check List, or CBCL) demonstrated that the average score was in the clinical rather than healthy range, among children in both clinics.[65] When expressed as percentages, among 6–11-year-olds, 61.7% of the Canadian and 62.1% of the Dutch sample were in the clinical range.

72. A systematic, comprehensive review of all studies of Autism Spectrum Disorders (ASDs) and Attention-Deficit Hyperactivity Disorder (ADHD) among children diagnosed with gender dysphoria was recently conducted. It was able to identify a total of 22 studies examining the prevalence of ASD or ADHD I youth with gender dysphoria. Studies reviewing medical records of children and adolescents referred to gender clinics showed 5–26% to have been diagnosed with ASD.[66]

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64 Wallien, *et al.*, 2007.
65 Cohen-Kettenis, *et al.*, 2003, at 46.
66 Thrower, *et al.*, 2020.

Moreover, those authors gave specific caution on the "considerable overlap between symptoms of ASD and symptoms of gender variance, exemplified by the subthreshold group which may display symptoms which could be interpreted as either ASD or gender variance. Overlap between symptoms of ASD and symptoms of GD may well confound results."[67] When two or more issues are present at the same time (in this case, gender dysphoria present at the same time as ADHD or ASD), researchers cannot distinguish when a result is associated with or caused by the issue of interest (gender dysphoria itself) or one of the side issues, called *confounds* (ADHD or ASD, in the present case).[68] The rate of ADHD among children with GD was 8.3–11%. Conversely, in data from children (ages 6–18) with Autism Spectrum Disorders (ASDs) show they are more than seven times more likely to have parent-reported "gender variance."[69]

C. Adolescent-Onset Gender Dysphoria

1. Features of Adolescent-Onset Gender Dysphoria

73. A third profile has begun to present to clinicians or socially, characteristically distinct from the previously identified ones.[70] Unlike adult-onset gender dysphoria (and also unlike childhood-onset, *see supra* Part IV.B.2), this group is predominately biologically female. This group first presents in adolescence, but lacks the history of cross-gender behavior in childhood like the childhood-onset cases have. It is this feature which led to the term Rapid Onset Gender Dysphoria (ROGD).[71] The majority of cases appear to occur within clusters of peers and in association with increased social media use[72] and especially among people with autism or other neurodevelopmental or mental health issues.[73]

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67 Thrower, *et al.*, 2020, at 703.
68 Cohen-Kettenis *et al.,* 2003, at 51; Skelly *et al.,* 2012.
69 Janssen, *et al.*, 2016.
70 Kaltiala-Heino, *et al.*, 2015; Littman, 2018.
71 Littman, 2018.
72 Littman, 2018.
73 Kaltiala-Heino, *et al.*, 2015; Littman, 2018; Warrier, *et al.*, 2020.

74. It cannot be easily determined whether the self-reported gender dysphoria is a result of other underlying issues or if those mental health issues are the result of the stresses of being a stigmatized minority, as some writers are quick to assume.[74] *See infra* Part VI.E (discussing the minority stress hypothesis). Importantly, and unlike other presentations of gender dysphoria, people with rapid-onset gender dysphoria often (47.2%) experienced *declines* rather than improvements in mental health when they publicly acknowledged their gender status.[75] Although long-term outcomes have not yet been reported, these distinctions argue against generalizing findings from the other types of gender dysphoria to this one. That is, in the absence of evidence, researchers cannot assume that the pattern found in childhood-onset or adult-onset gender dysphoria also applies to rapid-onset (aka adolescent-onset) gender dysphoria. That is, the group differences already observed argue against the conclusion that any given feature would be present, in general, throughout all types of gender dysphoria.

2. Prospective Studies of Social Transition and Puberty Blockers in Adolescence

75. There do not yet exist prospective outcomes studies either for social transition or for medical interventions for people whose gender dysphoria began in adolescence. That is, instead of taking a sample of individuals and following them forward over time (thus permitting researchers to account for people dropping out of the study, people misremembering the order of events, etc.), all studies have thus far been *retrospective*. It is not possible for such studies to identify what factors caused what outcomes. No study has yet been organized in such a way as to allow for an analysis of the adolescent-onset group, as distinct from childhood-onset or adult-onset cases. Many of the newer clinics (not the original clinics systematically tracking and reporting on their case results) fail to distinguish between people who had childhood-

74 Boivin, *et al*., 2020.
75 Biggs, 2020; Littman, 2018.

onset gender dysphoria and have aged into adolescence and people whose onset was not until adolescence. Similarly, there are clinics failing to distinguish people who had adolescent-onset gender dysphoria and aged into adulthood from adult-onset gender dysphoria. Studies selecting groups according to their current age instead of their ages of onset can produce only confounded results, representing unclear mixes according to how many of each type of case wound up in the final sample.

3. Mental Illness in Adolescent-Onset Gender Dysphoria

76. In 2019, a Special Section of the *Archives of Sexual Behavior* was published: "Clinical Approaches to Adolescents with Gender Dysphoria." It included this brief yet thorough summary of rates of mental health issues among adolescents expressing gender dysphoria by Dr. Aron Janssen of the Department of Child and Adolescent Psychiatry of New York University:[76] The literature varies in the range of percentages of adolescents with co-occurring disorders. The range for depressive symptoms ranges was 6–42%,[77] with suicide attempts ranging 10 to 45%.[78] Self-injurious thoughts and behaviors range 14–39%.[79] Anxiety disorders and disruptive behavior difficulties including Attention Deficit/Hyperactivity Disorder are also prevalent.[80] Gender dysphoria also overlaps with Autism Spectrum Disorder.[81]

77. Of particular concern in the context of adolescent onset gender dysphoria is *Borderline Personality Disorder* (BPD). The DSM criteria for BPD are:

> A pervasive pattern of instability of interpersonal relationships, self-image, and affects, and marked impulsivity beginning by early adulthood and present in a variety of contexts, as indicated by five (or more) of the following:
>
> 1. Frantic efforts to avoid real or imagined abandonment. (Note: Do not include suicidal or self-mutilating behaviour covered in Criterion 5.)

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76 Janssen, *et al.*, 2019.
77 Holt, *et al.*, 2016; Skagerberg, *et al.*, 2013; Wallien, *et al.*, 2007.
78 Reisner, *et al.,* 2015.
79 Holt, *et al.*, 2016; Skagerberg, *et al.*, 2013.
80 de Vries, *et al.*, 2011; Mustanski, *et al.*, 2010; Wallien, *et al.*, 2007.
81 de Vries, *et al.*, 2010; Jacobs, *et al.*, 2014; Janssen, *et al.*, 2016; May, *et al.*, 2016; Strang, *et al.*, 2014, 2016.

2. A pattern of unstable and intense interpersonal relationship characterized by alternating between extremes of idealization and devaluation.
3. *Identity disturbance: markedly and persistently unstable self-image or sense of self.*
4. Impulsivity in at least two areas that are potentially self-damaging (e.g., spending, sex, substance abuse, reckless driving, binge eating). (Note: Do not include suicidal or self-mutilating behavior covered in Criterion 5.)
5. *Recurrent suicidal behaviour, gestures, or threats, or self-mutilating behavior.*
6. Affective instability due to a marked reactivity of mood (e.g., intense episodic dysphoria, irritability, or anxiety usually lasting a few hours and only rarely more than a few days).
7. Chronic feelings of emptiness.
8. Inappropriate, intense anger or difficulty controlling anger (e.g., frequent displays of temper, constant anger, recurrent physical fights).
9. Transient, stress-related paranoid ideation or severe dissociative symptoms.

(Italics added.)

78. It is increasingly hypothesized that very many cases appearing to be adolescent-onset gender dysphoria are actually cases of BPD.[82] That is, some people may be misinterpreting their experiences to represent a gender identity issue, when it instead represents the "identity disturbance" noted in symptom Criterion 3. Like adolescent-onset gender dysphoria, BPD begins to manifest in adolescence, is substantially more common among biological females than males, and occurs in 2–3% of the population, rather than 1-in-5,000 people (*i.e.*, 0.02%). Thus, if even only a portion of people with BPD had an 'identity disturbance' that focused on gender identity and were mistaken for transgender, they could easily overwhelm the number of genuine cases of gender dysphoria.

79. A primary cause for concern is symptom Criterion 5: recurrent suicidality. Regarding the provision of mental health care, this is a crucial distinction: A person with BPD going undiagnosed will not receive the appropriate treatments (the

[82] *E.g.*, Zucker, 2019.

currently most effective of which is Dialectical Behavior Therapy). A person with a cross-gender identity would be expected to feel relief from medical transition, but someone with BPD would not: The problem was not about *gender* identity, but about having an *unstable* identity. Moreover, after a failure of medical transition to provide relief, one would predict for these people increased levels of hopelessness and increased risk of suicidality. One would predict also that misdiagnoses would occur more often if one reflexively dismissed or discounted symptoms of BPD as responses to "minority stress." *See infra* Part VI.D (discussing minority stress).

80. Regarding research, there have now been several attempts to document rates of suicidality among gender dysphoric adolescents. *See infra* Part VI.C. The scientific concern presented by BPD is that it poses a potential confound: samples of gender dysphoric adolescents could appear to have elevated rates of suicidality, not because of the gender dysphoria (or transphobia in society), but because of the number of people with BPD in the sample.

VI. Alleged Scientific Claims Assessed

A. Conversion Therapy

81. Activists and social media increasingly, but erroneously, apply the term "conversion therapy" moving farther and farther from what the research has reported. "Conversion therapy" (or "reparative therapy" and other names) was the attempt to change a person's sexual orientation; however, with the public more frequently accustomed to "LGB" being expanded to "LGBTQ+", the claims relevant only to sexual orientation are being misapplied to gender identity. The research has repeatedly demonstrated that once one explicitly acknowledges being gay or lesbian, this is only rarely mistaken. That is entirely unlike gender identity, wherein the great majority of children who declare cross-gender identity cease to do so by puberty, as shown unanimously by every follow-up study ever published. As the field grows increasingly polarized, any therapy failing to provide affirmation-on-demand is

mislabeled "conversion therapy."[83] Indeed, even actions of non-therapists, unrelated to any therapy have been labelled conversion therapy, including the very prohibition of biological males competing on female teams.[84]

B. Claims that All Childhood Outcome Studies Are Wrong

82. As already indicated, the follow-up studies of gender dysphoric children are unanimous in their conclusion that gender dysphoria desists in the large majority of cases. Nonetheless, some authors assert that the entire set of prospective outcomes studies on prepubescent children is wrong; that desistance is not, in fact, the usual outcome for gender dysphoric children; and that results from various retrospective studies are the more accurate picture.[85] As indicated in the responses published from authors of several prospective outcomes studies (and as summarized below), the detractors' arguments are invalid.[86]

83. There have been accusations that some of the prospective outcome studies are old. This criticism would be valid only if newer studies showed different results from the older studies; however, the findings of desistance are the same, indicating that age of the studies is not, in fact, a factor.

84. There have been accusations that some studies failed to use a DSM diagnosis, and should therefore be rejected. That would be a valid criticism only if studies using the DSM showed different results from studies not using the DSM. Because both kinds of studies showed the same results, one may conclude that DSM status was not a factor, even if using a DSM diagnosis would have been a preferred method.

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[83] D'Angelo, R., Syrulnik, E., Ayad, S., Marchiano, L., Kenny, D. T., & Clarke, P. (2021). One size does not fit all: In support of psychotherapy for gender dysphoria. *Archives of Sexual Behavior, 50,* 7–16.

[84] Turban, J. (2021, March 16). Trans girls belong on girls' sports teams. *Scientific American.* www.scientificamerican.com/article/trans-girls-belong-on-girls-sports-teams/

[85] Temple Newhook, *et al*., 2018; Winters, *et al*., 2018.

[86] Steensma, *et al*., 2018a; Zucker, *et al*. 2018.

85. There have been criticisms that some studies are too small to provide a reliable result. It is indeed true that if larger studies showed different results from the smaller studies, we would tend to favor the results of the larger studies. Because the smaller studies came to the same conclusion as the larger studies, however, the criticism is, once again, entirely moot.

86. There have been accusations that studies did not use the current DSM-5 as their method of diagnosing gender dysphoric children. This criticism would be valid only if there existed any studies using the DSM-5 against which to compare the existing studies. The DSM-5 is still too recent for there yet to have been long-term follow-up studies. It can be seen, however, that the outcome studies are the same across the DSM-III, DSM-III-R, DSM-IV, and DSM-IV-TR.

87. In science, there cannot be any such thing as a perfect study. Especially in medical research, where we cannot manipulate people in ways that would clear up difficult questions, all studies will have a fault. In science, we do not, however, reject every study with any identifiable short-coming—rather, we gather a diversity of observations, made with their diversity of compromises to safety and ethics (and time and cost, etc.), and tentatively accept the most parsimonious (simplest) explanation of the full set, weighting each study according to their individual strengths and weaknesses.

C. Assessing Claims of Suicidality

88. In the absence of scientific evidence associating improvement with transition among youth, demands for transition are increasingly accompanied by hyperbolic warnings of suicide should there be delay or obstacle to affirmation-on-demand. Social media circulate claims of extreme suicidality accompanied by declarations that "I'd rather have a trans daughter than a dead son." Such claims convey only grossly misleading misrepresentations of the research literature, however.

89. Despite that the media treat them as near synonyms, suicide and suicidality are distinct phenomena. They represent different behaviors with different motivations, with different mental health issues, and with differing clinical needs. *Suicide* refers to completed suicides and the sincere intent to die. It is substantially associated with impulsivity, using more lethal means, and being a biological male.[87] *Suicidality* refers to parasuicidal behaviors, including suicidal ideation, threats, and gestures. These typically represent cries for help rather than an intent to die and are more common among biological females. Suicidal threats can indicate any of many problems or represent emotional blackmail, as typified in "If you leave me, I will kill myself." Professing suicidality is also used for attention- seeking or for the support or sympathy it evokes from others, indicating distress much more frequently than an intent to die.

90. The scientific study of suicide is inextricably linked to that of mental illness. For example, as noted in the preceding, suicidality is a well-documented symptom of Borderline Personality Disorder (as are chronic identity issues), and personality disorders are highly elevated among transgender populations, especially adolescent-onset. Thus, the elevations of suicidality among gender dysphoric adolescents may not be a result of anything related to transition (or lack of transition), but to the overlap with mental illness of which suicidality is a substantial part. Conversely, improvements in suicidality reported in some studies may not be the result of anything related to transition, but rather to the concurrent general mental health support which is reported by the clinical reported prospective outcomes. Studies that include more than one factor at the same time without accounting for each other represent a "confound," and it cannot be known which factor (or both) is the one causing the effects observed. That is, when a study provides both mental health

[87] Freeman, *et al.,* 2017.

services and medical transition services at the same time, it cannot be known which (or both) is what caused any changes.

91. A primary criterion for readiness for transition used by the clinics demonstrating successful transition is the absence or resolution of other mental health concerns, such as suicidality. In the popular media, however, indications of mental health concerns are instead often dismissed as an expectable result caused by Sexual Minority Stress (SMS). It is generally implied that such symptoms will resolve upon transition and integration into an affirming environment. Dr. Adkins makes it explicit in her report that the purpose of "the medical treatment for gender dysphoria is to eliminate the clinically significant distress." (Adkins, p. 5.)

92. Despite that relevant professional association statements repeatedly call for mental health issues, including suicidality, to be resolved before transition (see *infra* Section VI), threats of suicide are instead oftentimes used as the very justification for labelling transition a 'medical necessity'. However plausible it might seem that failing to affirm transition causes suicidality, the epidemiological evidence indicates that hypothesis to be incorrect: Suicide rates remains elevated even after complete transition, as shown by a comprehensive review of 19 studies of suicidality in gender dysphoria.[88]

93. Of particular relevance in the present context is suicidality as a well-documented symptom of Borderline Personality Disorder (BPD) and that very many cases appearing to be adolescent-onset gender dysphoria actually represent cases of BPD. [See full DSM-5 criteria already listed herein.] That is, some people may be misinterpreting their experiencing of the broader "identity disturbance" of symptom Criterion 3 to represent a gender identity issue specifically. Like adolescent-onset gender dysphoria, BPD begins to manifest in adolescence and occurs in 2–3% of the

[88] McNeil, et al., 2017.

population, rather than 1-in-5,000 people. (Thus, if even only a portion of people with BPD experienced an identity disturbance that focused on gender identity and were mistaken for transgender, they could easily overwhelm the number of genuine cases of gender dysphoria.)

94. Rates of completed suicide are elevated among post-transition transsexuals, but are nonetheless rare,[89] and BPD is repeatedly documented to be greatly elevated among sexual minorities[90]. Overall, rates of suicidal ideation and suicidal attempts appear to be related—not to transition status—but to the social support received: The research evidence shows that support decreases suicidality, but that transition itself does not. Indeed, in some situations, social support was associated with increased suicide attempts, suggesting the reported suicidality may represent attempts to evoke more support.[91]

D. Assessing Demands for Social Transition and Affirmation-Only or Affirmation-on-Demand Treatment in Pre-Pubertal Children.

95. Colloquially, affirmation refers broadly to any actions that treat the person as belonging to a new gender. In different contexts, that could apply to social actions (use of a new name and pronouns), legal actions (changes to birth certificates), or medical actions (hormonal and surgical interventions). That is, social transition, legal transition, and medical transition (and subparts thereof) need not, and rarely do, occur at the same time. In practice, there are cases in which a child has socially only partially transitioned, such as presenting as one gender at home and another at school or presenting as one gender with one custodial parent and another gender with the other parent.

96. Referring to "affirmation" as a treatment approach is ambiguous: Although often used in public discourse to take advantage of the positive connotations of the

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89 Wiepjes, *et al.,* 2020.
90 Reuter, *et al.,* 2016; Rodriguez-Seiljas, *et al.,* 2021; Zanarni, *et al.,* 2021.
91 Bauer, *et al.*, 2015; Canetto, et al., 2021.

term, it obfuscates what exactly is being affirmed. This often leads to confusion, such as quoting a study of the benefits and risks of social affirmation in a discussion of medical affirmation, where the appearance of the isolated word "affirmation" refers to entirely different actions.

97. It is also an error to divide treatment approaches into affirmative versus non-affirmative. As noted already, the widely adopted Dutch Approach (and the guidelines of the multiple professional associations based on it) cannot be said to be either: It is a staged set of interventions, wherein social transition (and puberty blocking) may not begin until age 12 and cross-sex hormonal and other medical interventions, later.

98. Formal clinical approaches to helping children expressing gender dysphoria employ a gate-keeper model, with decision trees to help clinicians decide when and if the potential benefits of affirmation of the new gender would outweigh the potential risks of doing so. Because the gate-keepers and decision-trees generally include the possibility of affirmation in at least some cases, it is misleading to refer to any one approach as "the affirmation approach." The most extreme decision-tree would be accurately called affirmation-*on-demand,* involving little or no opportunity for children to explore at all whether the distress they feel is due to some other, less obvious, factor, whereas more moderate gate-keeping would endorse transition only in select situations, when the likelihood of regretting transition is minimized.

99. Many outcomes studies have been published examining the results of gate-keeper models, but no such studies have been published regarding affirmation-on-demand with children. Although there have been claims that affirmation-on-demand causes mental health or other improvement, these have been the result only of "retrospective" rather than "prospective" studies. That is, such studies did not take a sample of children and follow them up over time, to see how many dropped out altogether, how many transitioned successfully, and how many transitioned and

regretted it or detransitioned. Rather, such studies took a sample of successfully transitioned adults and asked them retrospective questions about their past. In such studies, it is not possible to know how many other people dropped out or regretted transition, and it is not possible to infer causality from any of the correlations detected, despite authors implying and inferring causality.

100. Olson and colleagues employed exactly such a retrospective study. They offered their survey to children in the TransYouth Project—people who have socially transitioned, their families, and any contacts they had, by word of mouth. This method is referred to as "convenience sampling," and differs from genuinely representative samples in applying to means of ensuring study participants accurately represent the population being studied. There were three groups of children for comparison: (i) children who had already socially transitioned, (ii) their siblings, and (iii) children in a university database of families interested in participating in child development research. As noted by the study authors, "For the first time, this article reports on socially transitioned gender children's mental health as reported by the children."[92] Reports from parents were also recorded.[93] In contrast, no reports or ratings were provided by any mental health care professional or researcher at all. That is, although adding self-assessments to the professional assessments might indeed provide novel insights, this project did not add self-assessment to professional assessment. Rather, it replaced professional assessment with self-assessment. Moreover, as already noted, Olson's data did not show what the Olson team claimed.[94] The dataset was subsequently re-analyzed, and "[T]o the contrary, the transgender children, even when supported by their parents, had significantly lower average scores on anxiety and self-worth. "[95]

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92 Durwood, *et al.*, 2017, at 121 (italics added).
93 *See* Olson, *et al.*, 2016.
94 Schumm, *et al.,* 2019.
95 Schumm & Crawford, 2020, p. 9

101. It is well established in the field of psychology that participant self-assessment can be severely unreliable for multiple reasons. For example, one well-known phenomenon in psychological research is known as "socially desirable responding"—the tendency of subjects to give answers that they believe will make themselves look good, rather than accurate answers. Specifically, subjects' reports that they are enjoying good mental health and functioning well could reflect the subjects' desire to be *perceived* as healthy and as having made good choices, rather than reflecting their actual mental health.

102. In their analyses, the study reported finding no significant differences between the transgender children, their non-transgender siblings, or the community controls. As the authors noted, "[t]hese findings are in striking contrast to previous work with gender-nonconforming children who had not socially transitioned, which found very high rates of depression and anxiety."[96] The authors are correct to note that their result contrasts with the previous research, but they do not discuss that this could reflect a problem with the novel research design they used: The subjective self-reports of the children and their parents' reports may not be reflecting reality objectively, as careful professional researchers would. Because the study did not employ any method to detect and control for participants indulging in "socially desirable responding" or acting under other biasing motivations, this possibility cannot be assessed or ruled out.

103. Because this was a single-time study relying on self-reporting, rather than a before-and-after transition study relying on professional evaluation, it is not possible to know if the children reported as well-functioning are in fact well-functioning, nor if so whether they are well-functioning because they were permitted to transition, or whether instead the fact is that they were already well-functioning

[96] Durwood, *et al.*, 2017, at 116.

and therefore permitted to transition. Finally, because the TransYouth project lacks a prospective design, it cannot be known how many cases attempted transition, reacted poorly, and then detransitioned, thus never having entered into the study in the first place.

E. Assessing the "Minority Stress Hypothesis"

104. The elevated levels of mental health problems among lesbian, gay, and bisexual populations is a well-documented phenomenon, and the idea that it is caused by living within a socially hostile environment is called the *Minority Stress Hypothesis*.[97] The association is not entirely straight-forward, however. For example, although lesbian, gay, and bisexual populations are more vulnerable to suicide ideation overall, the evidence specifically on adult lesbian and bisexual women is unclear. Meyer did not include transgender populations in originating the hypothesis, and it remains a legitimate question to what extent and in what ways it might apply to gender identity.

105. Minority stress is associated, in large part, with being a visible minority. There is little evidence that transgender populations show the patterns suggested by the hypothesis. For example, the minority stress hypothesis would predict differences according to how visibly a person is discernable as a member of the minority, which often changes greatly upon transition. Biological males who are very effeminate stand out throughout childhood, but in some cases can successfully blend in as adult females; whereas the adult-onset transitioners blend in very much as heterosexual cis-gendered males during their youth and begin visibly to stand out in adulthood, only for the first time.

106. Also suggesting minority stress cannot be the full story is that the mental health symptoms associated with minority stress do not entirely correspond with

[97] Meyer, 2003.

those associated with gender dysphoria. The primary symptoms associated with minority stress are depressive symptoms, substance use, and suicidal ideation.[98] The symptoms associated with gender dysphoria indeed include depressive symptoms and suicidal ideation, but also include anxiety symptoms, Autism Spectrum Disorders, and personality disorders.

VII. Assessing Statements from Professional Associations

A. Understanding the Value of Statements from Professional Associations

107. The value of position statements from professional associations should be neither over- nor under-estimated. In the ideal, an organization of licensed health care professionals would convene a panel of experts who would systematically collect all the available evidence about an issue, synthesizing it into recommendations or enforceable standards for clinical care, according to the quality of the evidence for each alternative. For politically neutral issues, with relevant expertise contained among association members, this ideal can be readily achievable. For controversial issues with no clear consensus, the optimal statement would summarize each perspective and explicate the strengths and weaknesses of each, providing relatively reserved recommendations and suggestions for future research that might resolve the continuing questions. Several obstacles can hinder that goal, however. Committees within professional organizations are typically volunteer activities, subject to the same internal politics of all human social structures. That is, committee members are not necessarily committees of experts on a topic—they are often committees of generalists handling a wide variety of issues or members of an interest group who feel strongly about political implications of an issue, instead of scientists engaged in the objective study of the topic.

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98 Meyer, 2003.

108. Thus, documents from professional associations may represent required standards, the violation of which may merit sanctions, or may represent only recommendations or guidelines. A document may represent the views of an association's full membership or only of the committee's members (or majorities thereof). Documents may be based on systematic, comprehensive reviews of the available research or selected portions of the research. In sum, the weight best placed on any association's statement is the amount by which that association employed evidence versus other considerations in its process.

B. Misrepresentations of statements of professional associations.

109. In the presently highly politicized context, official statements of professional associations have been widely misrepresented. In preparing the present report, I searched the professional research literature for documentation of statements from these bodies and from my own files, for which I have been collecting such information for many years. I was able to identify statements from six such organizations. Although not strictly a medical association, the World Professional Association for Transgender Health (WPATH) also distributed a set of guidelines in wide use and on which other organizations' guidelines are based.

110. Notably, despite that all these medical associations reiterate the need for mental health issues to be resolved before engaging in medical transition, only the AACAP members have medical training in mental health. The other medical specialties include clinical participation with this population, but their assistance in transition generally assumes the mental health aspects have already been assessed and treated beforehand.

1. World Professional Association for Transgender Health (WPATH)

111. The WPATH standards as they relate to prepubescent children begin with the acknowledgement of the known rates of desistance among gender dysphoric children:

> [I]n follow-up studies of prepubertal children (mainly boys) who were referred to clinics for assessment of gender dysphoria, the dysphoria persisted into adulthood for only 6–23% of children (Cohen-Kettenis, 2001; Zucker & Bradley, 1995). Boys in these studies were more likely to identify as gay in adulthood than as transgender (Green, 1987; Money & Russo, 1979; Zucker & Bradley, 1995; Zuger, 1984). Newer studies, also including girls, showed a 12–27% persistence rate of gender dysphoria into adulthood (Drummond, Bradley, Peterson-Badali, & Zucker, 2008; Wallien & Cohen-Kettenis, 2008).[99]

112. That is, "In most children, gender dysphoria will disappear before, or early in, puberty."[100]

113. Although WPATH does not refer to puberty blocking medications as "experimental," the document indicates the non-routine, or at least inconsistent availability of the treatment:

> Among adolescents who are referred to gender identity clinics, the number considered eligible for early medical treatment—starting with GnRH analogues to suppress puberty in the first Tanner stages—differs among countries and centers. Not all clinics offer puberty suppression. If such treatment is offered, the pubertal stage at which adolescents are allowed to start varies from Tanner stage 2 to stage 4 (Delemarre, van de Waal & Cohen-Kettenis, 2006; Zucker et al., [2012]).[101]

114. WPATH neither endorses nor proscribes social transitions before puberty, instead recognizing the diversity among families' decisions:

> Social transitions in early childhood do occur within some families with early success. This is a controversial issue, and divergent views are held by health professionals. The current evidence base is insufficient to predict the long-term outcomes of completing a gender role transition during early childhood.[102]

115. It does caution, however, "Relevant in this respect are the previously described relatively low persistence rates of childhood gender dysphoria."[103]

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99 Coleman, *et al.*, 2012, at 172.
100 Coleman, *et al.*, 2012, at 173.
101 Coleman, *et al.*, 2012, at 173.
102 Coleman, *et al.*, 2012, at 176.
103 Coleman, *et al.*, 2012, at 176 (quoting Drummond, *et al.*, 2008; Wallien & Cohen-Kettenis, 2008).

2. Endocrine Society (ES)

116. The 150,000-member Endocrine Society appointed a nine-member task force, plus a methodologist and a medical writer, who commissioned two systematic reviews of the research literature and, in 2017, published an update of their 2009 recommendations, based on the best available evidence identified. The guideline was co-sponsored by the American Association of Clinical Endocrinologists, American Society of Andrology, European Society for Paediatric Endocrinology, European Society of Endocrinology, Pediatric Endocrine Society (PES), and the World Professional Association for Transgender Health (WPATH).

117. The document acknowledged the frequency of desistance among gender dysphoric children:

> Prospective follow-up studies show that childhood GD/gender incongruence does not invariably persist into adolescence and adulthood (so-called "desisters"). Combining all outcome studies to date, the GD/gender incongruence of a minority of prepubertal children appears to persist in adolescence. . . . In adolescence, a significant number of these desisters identify as homosexual or bisexual.[104]

118. The statement similarly acknowledges inability to predict desistance or persistence, "With current knowledge, we cannot predict the psychosexual outcome for any specific child."[105]

119. Although outside their area of professional expertise, mental health issues were also addressed by the Endocrine Society, repeating the need to handle such issues before engaging in transition, "In cases in which severe psychopathology, circumstances, or both seriously interfere with the diagnostic work or make satisfactory treatment unlikely, clinicians should assist the adolescent in managing these other issues."[106] This ordering—to address mental health issues before embarking on transition—avoids relying on the unproven belief that transition will solve such issues.

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[104] Hembree, *et al.*, 2017, at 3876.
[105] Hembree, *et al.*, 2017, at 3876.
[106] Hembree, *et al.*, 2017, at 3877.

120. The Endocrine Society did not endorse any affirmation-only approach. The guidelines were neutral with regard to social transitions before puberty, instead advising that such decisions be made only under clinical supervision: "We advise that decisions regarding the social transition of prepubertal youth are made with the assistance of a mental health professional or similarly experienced professional."[107]

121. The Endocrine Society guidelines make explicit that, after gathering information from adolescent clients seeking medical interventions and their parents, the clinician "provides correct information to prevent unrealistically high expectations [and] assesses whether medical interventions may result in unfavorable psychological and social outcomes."[108]

3. Pediatric Endocrine Society and Endocrine Society (ES/PES)

122. In 2020, the 1500-member Pediatric Endocrine Society partnered with the Endocrine Society to create and endorse a brief, two-page position statement.[109] Although strongly worded, the document provided no specific guidelines, instead deferring to the Endocrine Society guidelines.[110]

123. It is not clear to what extent this endorsement is meaningful, however. According to the PES, the Endocrine Society "recommendations include evidence that treatment of gender dysphoria/gender incongruence is medically necessary and should be covered by insurance."[111] However, the Endocrine Society makes neither statement. Although the two-page PES document mentioned insurance coverage four times, the only mention of health insurance by the Endocrine Society was: "If GnRH analog treatment is not available (insurance denial, prohibitive cost, or other reasons), postpubertal, transgender female adolescents may be treated with an

[107] Hembree, *et al.*, 2017, at 3872.
[108] Hembree, *et al.*, 2017, at 3877.
[109] PES, online; Pediatric Endocrine Society & Endocrine Society, Dec. 2020.
[110] Pediatric Endocrine Society & Endocrine Society, Dec. 2020, at 1; Hembree, *et al.*, 2017.
[111] Pediatric Endocrine Society & Endocrine Society, Dec. 2020, at 1.

antiandrogen that directly suppresses androgen synthesis or action."[112] Despite the PES asserting it as "medically necessary," the Endocrine Society stopped short of that. Its only use of that phrase was instead limiting: "We recommend that a patient pursue genital gender-affirming surgery only after the MHP and the clinician responsible for endocrine transition therapy both agree that surgery is medically necessary and would benefit the patient's overall health and/or well-being."[113]

4. American Academy of Child & Adolescent Psychiatry (AACAP)

124. The 2012 statement of the American Academy of Child & Adolescent Psychiatry (AACAP) is not an affirmation-only policy. It notes:

> Just as family rejection is associated with problems such as depression, suicidality, and substance abuse in gay youth, the proposed benefits of treatment to eliminate gender discordance in youth must be carefully weighed against such possible deleterious effects. . . . In general, it is desirable to help adolescents who may be experiencing gender distress and dysphoria to defer sex reassignment until adulthood, or at least until the wish to change sex is unequivocal, consistent, and made with appropriate consent.[114]

125. The AACAP's language repeats the description of the use of puberty blockers only as an exception: "For situations in which deferral of sex reassignment decisions until adulthood is *not clinically feasible*, one approach that has been described in case series is sex hormone suppression under endocrinological management with psychiatric consultation using gonadotropin-releasing hormone analogues."[115]

126. The AACAP statement acknowledges the long-term outcomes literature for gender dysphoric children: "In follow-up studies of prepubertal boys with gender discordance—including many without any mental health treatment—the cross gender wishes usually fade over time and do not persist into adulthood,"[116] adding that "[c]linicians should be aware of current evidence on the natural course of gender

[112] Hembree, *et al*. 2017, at 3883.
[113] Hembree, *et al*., 2017 at 3872, 3894.
[114] Adelson & AACAP, 2012, at 969.
[115] Adelson & AACAP, 2012, at 969 (italics added).
[116] Adelson & AACAP, 2012, at 963.

discordance and associated psychopathology in children and adolescents in choosing the treatment goals and modality."[117]

127. The policy similarly includes a provision for resolving mental health issues: "Gender reassignment services are available in conjunction with mental health services focusing on exploration of gender identity, cross-sex treatment wishes, counseling during such treatment if any, and *treatment of associated mental health problems*."[118] The document also includes minority stress issues and the need to deal with mental health aspects of minority status (*e.g.*, bullying).[119]

128. Rather than endorse social transition for prepubertal children, the AACAP indicates: "There is similarly no data at present from controlled studies to guide clinical decisions regarding the risks and benefits of sending gender discordant children to school in their desired gender. Such decisions must be made based on clinical judgment, bearing in mind the potential risks and benefits of doing so."[120]

5. American College of Obstetricians & Gynecologists (ACOG)

129. The American College of Obstetricians & Gynecologists (ACOG) published a "Committee Opinion" expressing recommendations in 2017. The statement indicates it was developed by the ACOG's Committee on Adolescent Health Care, but does not indicate participation based on professional expertise or a systematic method of objectively assessing the existing research. It includes the disclaimer: "This document reflects emerging clinical and scientific advances as of the date issued and is subject to change. The information should not be construed as dictating an exclusive course of treatment or procedure to be followed."[121]

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[117] Adelson & AACAP, 2012, at 968.
[118] Adelson & AACAP, 2012, at 970 (italics added).
[119] Adelson & AACAP, 2012, at 969.
[120] Adelson & AACAP, 2012, at 969.
[121] ACOG, 2017, at 1.

130. Prepubertal children do not typically have clinical contact with gynecologists, and the ACOG recommendations include that the client additionally have a primary health care provider.[122]

131. The ACOG statement cites the statements made by other medical associations—European Society for Pediatric Endocrinology (ESPE),, PES, and the Endocrine Society—and by WPATH.[123] It does not cite any professional association of *mental* health care providers, however. The ACOG recommendations repeat the previously mentioned eligibility/readiness criteria of having no mental illness that would hamper diagnosis and no medical contraindications to treatment. It notes: "*Before* any treatment is undertaken, the patient must display eligibility and readiness (Table 1), meaning that the adolescent has been evaluated by a mental health professional, has no contraindications to therapy, and displays an understanding of the risks involved."[124]

132. The "Eligibility and Readiness Criteria" also include, "Diagnosis established for gender dysphoria, transgender, transsexualism."[125] This standard, requiring a formal diagnosis, forestalls affirmation-on-demand because self-declared self-identification is not sufficient for DSM diagnosis.

133. ACOG's remaining recommendations pertain only to post-transition, medically oriented concerns. Pre-pubertal social transition is not mentioned in the document, and the outcomes studies of gender dysphoric (prepubescent) children are not cited.

6. American College of Physicians (ACP)

134. The American College of Physicians published a position paper broadly expressing support for the treatment of LGBT patients and their families, including

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[122] ACOG, 2017, at 1.
[123] ACOG, 2017, at 1, 3.
[124] ACOG, 2017, at 1, 3 (citing the Endocrine Society guidelines) (italics added).
[125] ACOG, 2017, at 3 Table 1.

nondiscrimination, antiharassment, and defining "family" by emotional rather than biological or legal relationships in visitation policies, and the inclusion of transgender health care services in public and private health benefit plans.[126]

135. ACP did not provide guidelines or standards for child or adult gender transitions. The policy paper opposed attempting "reparative therapy;" however, the paper confabulated sexual orientation with gender identity in doing so. That is, on the one hand, ACP explicitly recognized that "[s]exual orientation and gender identity are inherently different."[127] It based this statement on the fact that "the American Psychological Association conducted a literature review of 83 studies on the efficacy of efforts to change *sexual orientation*."[128] The APA's document, entitled "Report of the American Psychological Task Force on appropriate therapeutic responses to *sexual orientation*" does not include or reference research on gender identity.[129] Despite citing no research about transgenderism, the ACP nonetheless included in its statement: "Available research does not support the use of reparative therapy as an effective method in the treatment of LGB*T* persons."[130] That is, the inclusion of "T" with "LGB" is based on something other than the existing evidence.

136. There is another statement,[131] which was funded by ACP and published in the Annals of Internal Medicine under its "*In the Clinic*" feature, noting that "'In the Clinic' does not necessarily represent official ACP clinical policy."[132] The document discusses medical transition procedures for adults rather than for children, except to note that "[n]o medical intervention is indicated for prepubescent youth,"[133] that a "mental health provider can assist the child and family with identifying an

126 Daniel & Butkus, 2015a, 2015b.
127 Daniel & Butkus, 2015b, at 2.
128 Daniel & Butkus, 2015b, at 8 (italics added).
129 APA, 2009 (italics added).
130 Daniel & Butkus, 2015b, at 8 (italics added).
131 Safer & Tangpricha, 2019.
132 Safer & Tangpricha, 2019, at ITC1.
133 Safer & Tangpricha, 2019, at ITC9.

appropriate time for a social transition,"[134] and that the "child should be assessed and managed for coexisting mood disorders during this period because risk for suicide is higher than in their cisgender peers."[135]

7. American Academy of Pediatrics (AAP)

137. The policy of the American Academy of Pediatrics (AAP) is unique among the major medical associations in being the only one to endorse an affirmation-on-demand policy, including social transition before puberty without any watchful waiting period. Although changes in recommendations can obviously be appropriate in response to new research evidence, the AAP provided none. Rather, the research studies AAP cited in support of its policy simply did not say what AAP claimed they did. In fact, the references that AAP cited as the basis of their policy instead outright contradicted that policy, repeatedly endorsing watchful waiting.[136] Moreover, of all the outcomes research published, the AAP policy cited *one*, and that without mentioning the outcome data it contained.[137].

8. The ESPE-LWPES GnRH Analogs Consensus Conference Group

138. Included in the interest of completeness, there was also a collaborative report in 2009, between the European Society for Pediatric Endocrinology (ESPE) and the Lawson Wilkins Pediatric Endocrine Society (LWPES).[138] Thirty experts were convened, evenly divided between North American and European labs and evenly divided male/female, who comprehensively rated the research literature on gonadotropin-release hormone analogs in children.

139. The effort concluded that "[u]se of gonadotropin-releasing hormone analogs for conditions other than central precocious puberty requires additional investigation

134 Safer & Tangpricha, 2019, at ITC9.
135 Safer & Tangpricha, 2019, at ITC9.
136 Cantor, 2020.
137 Cantor, 2020, at 1.
138 Carel et al., 2009.

and cannot be suggested routinely."[139] However, gender dysphoria was not explicitly mentioned as one of those other conditions.

[139] Carel et al. 2009, at 752.

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EXPERT REPORT OF JAMES M. CANTOR, PHD

APPENDIX 1

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EDUCATION

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Psychology • McGill University • Montréal, Canada

Master of Arts Sep., 1990–Jan., 1992
Psychology • Boston University • Boston, MA

Bachelor of Science Sep. 1984–Aug., 1988
Interdisciplinary Science • Rensselaer Polytechnic Institute • Troy, NY
Concentrations: Computer science, mathematics, physics

EMPLOYMENT HISTORY

Director Feb., 2017–Present
Toronto Sexuality Centre • Toronto, Canada

Senior Scientist (Inaugural Member) Aug., 2012–May, 2018
Campbell Family Mental Health Research Institute
Centre for Addiction and Mental Health • Toronto, Canada

Senior Scientist Jan., 2012–May, 2018
Complex Mental Illness Program
Centre for Addiction and Mental Health • Toronto, Canada

Head of Research Nov., 2010–Apr. 2014
Sexual Behaviours Clinic
Centre for Addiction and Mental Health • Toronto, Canada

Research Section Head Dec., 2009–Sep. 2012
Law & Mental Health Program
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Psychologist May, 2004–Dec., 2011
Law & Mental Health Program
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Clinical Psychology Intern Sep., 1998–Aug., 1999
Centre for Addiction and Mental Health • Toronto, Canada

Teaching Assistant Sep., 1993–May, 1998
Department of Psychology
McGill University • Montréal, Canada

Pre-Doctoral Practicum Sep., 1993–Jun., 1997
Sex and Couples Therapy Unit
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Pre-Doctoral Practicum May, 1994–Dec., 1994
Department of Psychiatry
Queen Elizabeth Hospital • Montréal, Canada

ACADEMIC APPOINTMENTS

Associate Professor Jul., 2010–May, 2019
Department of Psychiatry
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Graduate Program in Psychology
York University • Toronto, Canada

Associate Faculty (Hon) Oct., 2017–Dec., 2017
School of Behavioural, Cognitive & Social Science
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Assistant Professor Jun., 2005–Jun., 2010
Department of Psychiatry
University of Toronto Faculty of Medicine • Toronto, Canada

Adjunct Faculty Sep., 2004–Jun., 2010
Clinical Psychology Residency Program
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PUBLICATIONS

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[Invited article]. *ATSA Forum, 20*(4), 6–10.

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PUBLICATIONS

LETTERS AND COMMENTARIES

1. Cantor, J. M. (2015). Research methods, statistical analysis, and the phallometric test for hebephilia: Response to Fedoroff [Editorial Commentary]. *Journal of Sexual Medicine, 12,* 2499–2500. doi: 10.1111/jsm.13040
2. Cantor, J. M. (2015). In his own words: Response to Moser [Editorial Commentary]. *Journal of Sexual Medicine, 12,* 2502–2503. doi: 10.1111/jsm.13075
3. Cantor, J. M. (2015). Purported changes in pedophilia as statistical artefacts: Comment on Müller et al. (2014). *Archives of Sexual Behavior, 44,* 253–254. doi: 10.1007/s10508-014-0343-x
4. McPhail, I. V., & Cantor, J. M. (2015). Pedophilia, height, and the magnitude of the association: A research note. *Deviant Behavior, 36,* 288–292. doi: 10.1080/01639625.2014.935644
5. Soh, D. W., & Cantor, J. M. (2015). A peek inside a furry convention [Letter to the Editor]. *Archives of Sexual Behavior, 44,* 1–2. doi: 10.1007/s10508-014-0423-y
6. Cantor, J. M. (2012). Reply to Italiano's (2012) comment on Cantor (2011) [Letter to the Editor]. *Archives of Sexual Behavior, 41,* 1081–1082. doi: 10.1007/s10508-012-0011-y
7. Cantor, J. M. (2012). The errors of Karen Franklin's *Pretextuality* [Commentary]. *International Journal of Forensic Mental Health, 11,* 59–62. doi: 10.1080/14999013.2012.672945
8. Cantor, J. M., & Blanchard, R. (2012). White matter volumes in pedophiles, hebephiles, and teleiophiles [Letter to the Editor]. *Archives of Sexual Behavior, 41, 749–752.* doi: 10.1007/s10508-012-9954-2
9. Cantor, J. M. (2011). New MRI studies support the Blanchard typology of male-to-female transsexualism [Letter to the Editor]. *Archives of Sexual Behavior, 40*, 863–864. doi: 10.1007/s10508-011-9805-6
10. Zucker, K. J., Bradley, S. J., Own-Anderson, A., Kibblewhite, S. J., & Cantor, J. M. (2008). Is gender identity disorder in adolescents coming out of the closet? *Journal of Sex and Marital Therapy, 34,* 287–290.
11. Cantor, J. M. (2003, Summer). Review of the book *The Man Who Would Be Queen* by J. Michael Bailey. *Newsletter of Division 44 of the American Psychological Association, 19*(2), 6.
12. Cantor, J. M. (2003, Spring). What are the hot topics in LGBT research in psychology? *Newsletter of Division 44 of the American Psychological Association, 19*(1), 21–24.
13. Cantor, J. M. (2002, Fall). Male homosexuality, science, and pedophilia. *Newsletter of Division 44 of the American Psychological Association, 18*(3), 5–8.
14. Cantor, J. M. (2000). Review of the book *Sexual Addiction: An Integrated Approach. Journal of Sex and Marital Therapy, 26*, 107–109.

EDITORIALS

1. Cantor, J. M. (2012). Editorial. *Sexual Abuse: A Journal of Research and Treatment, 24*.

2. Cantor, J. M. (2011). Editorial note. *Sexual Abuse: A Journal of Research and Treatment, 23,* 414.
3. Barbaree, H. E., & Cantor, J. M. (2010). Performance indicates for *Sexual Abuse: A Journal of Research and Treatment* (SAJRT) [Editorial]. *Sexual Abuse: A Journal of Research and Treatment, 22,* 371–373.
4. Barbaree, H. E., & Cantor, J. M. (2009). *Sexual Abuse: A Journal of Research and Treatment* performance indicators for 2007 [Editorial]. *Sexual Abuse: A Journal of Research and Treatment, 21,* 3–5.
5. Zucker, K. J., & Cantor, J. M. (2009). Cruising: Impact factor data [Editorial]. *Archives of Sexual Research, 38,* 878–882.
6. Barbaree, H. E., & Cantor, J. M. (2008). Performance indicators for *Sexual Abuse: A Journal of Research and Treatment* [Editorial]. *Sexual Abuse: A Journal of Research and Treatment, 20,* 3–4.
7. Zucker, K. J., & Cantor, J. M. (2008). The *Archives* in the era of online first ahead of print[Editorial]. *Archives of Sexual Behavior, 37,* 512–516.
8. Zucker, K. J., & Cantor, J. M. (2006). The impact factor: The *Archives* breaks from the pack [Editorial]. *Archives of Sexual Behavior, 35,* 7–9.
9. Zucker, K. J., & Cantor, J. M. (2005). The impact factor: “Goin’ up” [Editorial]. *Archives of Sexual Behavior, 34,* 7–9.
10. Zucker, K., & Cantor, J. M. (2003). The numbers game: The impact factor and all that jazz [Editorial]. *Archives of Sexual Behavior, 32,* 3–5.

FUNDING HISTORY

Principal Investigators:	Doug VanderLaan, Meng-Chuan Lai
Co-Investigators:	James M. Cantor, Megha Mallar Chakravarty, Nancy Lobaugh, M. Palmert, M. Skorska
Title:	*Brain function and connectomics following sex hormone treatment in adolescents experience gender dysphoria*
Agency:	Canadian Institutes of Health Research (CIHR), Behavioural Sciences-B-2
Funds:	$650,250 / 5 years (July, 2018)
Principal Investigator:	Michael C. Seto
Co-Investigators:	Martin Lalumière , James M. Cantor
Title:	*Are connectivity differences unique to pedophilia?*
Agency:	University Medical Research Fund, Royal Ottawa Hospital
Funds:	$50,000 / 1 year (January, 2018)
Principal Investigator:	Lori Brotto
Co-Investigators:	Anthony Bogaert, James M. Cantor, Gerulf Rieger
Title:	*Investigations into the neural underpinnings and biological correlates of asexuality*
Agency:	Natural Sciences and Engineering Research Council (NSERC), Discovery Grants Program
Funds:	$195,000 / 5 years (April, 2017)
Principal Investigator:	Doug VanderLaan
Co-Investigators:	Jerald Bain, James M. Cantor, Megha Mallar Chakravarty, Sofia Chavez, Nancy Lobaugh, and Kenneth J. Zucker
Title:	*Effects of sex hormone treatment on brain development: A magnetic resonance imaging study of adolescents with gender dysphoria*
Agency:	Canadian Institutes of Health Research (CIHR), Transitional Open Grant Program
Funds:	$952,955 / 5 years (September, 2015)
Principal Investigator:	James M. Cantor
Co-Investigators:	Howard E. Barbaree, Ray Blanchard, Robert Dickey, Todd A. Girard, Phillip E. Klassen, and David J. Mikulis
Title:	*Neuroanatomic features specific to pedophilia*
Agency:	Canadian Institutes of Health Research (CIHR)
Funds:	$1,071,920 / 5 years (October, 2008)
Principal Investigator:	James M. Cantor
Title:	*A preliminary study of fMRI as a diagnostic test of pedophilia*
Agency:	Dean of Medicine New Faculty Grant Competition, Univ. of Toronto
Funds:	$10,000 (July, 2008)

Principal Investigator:	James M. Cantor
Co-Investigator:	Ray Blanchard
Title:	*Morphological and neuropsychological correlates of pedophilia*
Agency:	Canadian Institutes of Health Research (CIHR)
Funds:	$196,902 / 3 years (April, 2006)

KEYNOTE AND INVITED ADDRESSES

1. Cantor, J. M. (2021, September 28). *No topic too tough for this expert panel: A year in review.* Plenary Session for the 40th Annual Research and Treatment Conference, Association for the Treatment of Sexual Abusers.
2. Cantor, J. M. (2019, May 1). *Introduction and Q&A for 'I, Pedophile.'* StopSO 2nd Annual Conference, London, UK.
3. Cantor, J. M. (2018, August 29). *Neurobiology of pedophilia or paraphilia? Towards a 'Grand Unified Theory' of sexual interests.* Keynote address to the International Association for the Treatment of Sexual Offenders, Vilnius, Lithuania.
4. Cantor, J. M. (2018, August 29). *Pedophilia and the brain: Three questions asked and answered.* Preconference training presented to the International Association for the Treatment of Sexual Offenders, Vilnius, Lithuania.
5. Cantor, J. M. (2018, April 13). *The responses to* I, Pedophile *from We, the people.* Keynote address to the Minnesota Association for the Treatment of Sexual Abusers, Minneapolis, Minnesota.
6. Cantor, J. M. (2018, April 11). *Studying atypical sexualities: From vanilla to* I, Pedophile. Full day workshop at the Minnesota Association for the Treatment of Sexual Abusers, Minneapolis, Minnesota.
7. Cantor, J. M. (2018, January 20). *How much sex is enough for a happy life?* Invited lecture to the University of Toronto Division of Urology Men's Health Summit, Toronto, Canada.
8. Cantor, J. M. (2017, November 2). Pedophilia as a phenomenon of the brain: Update of evidence and the public response. Invited presentation to the 7th annual SBC education event, Centre for Addiction and Mental Health, Toronto, Canada.
9. Cantor, J. M. (2017, June 9). Pedophilia being in the brain: The evidence and the public's reaction. Invited presentation to *SEXposium at the ROM: The science of love and sex,* Toronto, Canada.
10. Cantor, J. M., & Campea, M. (2017, April 20). *"I, Pedophile" showing and discussion.* Invited presentation to the 42nd annual meeting of the Society for Sex Therapy and Research, Montréal, Canada.
11. Cantor, J. M. (2017, March 1). *Functional and structural neuroimaging of pedophilia: Consistencies across methods and modalities.* Invited lecture to the Brain Imaging Centre, Royal Ottawa Hospital, Ottawa, Canada.
12. Cantor, J. M. (2017, January 26). *Pedophilia being in the brain: The evidence and the public reaction.* Inaugural keynote address to the University of Toronto Sexuality Interest Network, Toronto, Ontario, Canada.
13. Cantor, J. M. (2016, October 14). *Discussion of CBC's "I, Pedophile."* Office of the Children's Lawyer Educational Session, Toronto, Ontario, Canada.
14. Cantor, J. M. (2016, September 15). *Evaluating the risk to reoffend: What we know and what we don't.* Invited lecture to the Association of Ontario Judges, Ontario Court of Justice Annual Family Law Program, Blue Mountains, Ontario, Canada. [Private link only: https://vimeo.com/239131108/3387c80652]
15. Cantor, J. M. (2016, April 8). *Pedophilia and the brain: Conclusions from the second generation of research.* Invited lecture at the 10th annual Risk and Recovery Forensic Conference, Hamilton, Ontario.

16. Cantor, J. M. (2016, April 7). *Hypersexuality without the hyperbole.* Keynote address to the 10th annual Risk and Recovery Forensic Conference, Hamilton, Ontario.
17. Cantor, J. M. (2015, November). *No one asks to be sexually attracted to children: Living in Daniel's World.* Grand Rounds, Centre for Addiction and Mental Health. Toronto, Canada.
18. Cantor, J. M. (2015, August). *Hypersexuality: Getting past whether "it" is or "it" isn't.* Invited address at the 41st annual meeting of the International Academy of Sex Research. Toronto, Canada.
19. Cantor, J. M. (2015, July). *A unified theory of typical and atypical sexual interest in men: Paraphilia, hypersexuality, asexuality, and vanilla as outcomes of a single, dual opponent process.* Invited presentation to the 2015 Puzzles of Sexual Orientation conference, Lethbridge, AL, Canada.
20. Cantor, J. M. (2015, June). *Hypersexuality.* Keynote Address to the Ontario Problem Gambling Provincial Forum. Toronto, Canada.
21. Cantor, J. M. (2015, May). *Assessment of pedophilia: Past, present, future.* Keynote Address to the International Symposium on Neural Mechanisms Underlying Pedophilia and Child Sexual Abuse (NeMUP). Berlin, Germany.
22. Cantor, J. M. (2015, March). *Prevention of sexual abuse by tackling the biggest stigma of them all: Making sex therapy available to pedophiles.* Keynote address to the 40th annual meeting of the Society for Sex Therapy and Research, Boston, MA.
23. Cantor, J. M. (2015, March. *Pedophilia: Predisposition or perversion?* Panel discussion at Columbia University School of Journalism. New York, NY.
24. Cantor, J. M. (2015, February). *Hypersexuality.* Research Day Grand Rounds presentation to Ontario Shores Centre for Mental Health Sciences, Whitby, Ontario, Canada.
25. Cantor, J. M. (2015, January). *Brain research and pedophilia: What it means for assessment, research, and policy.* Keynote address to the inaugural meeting of the Netherlands Association for the Treatment of Sexual Abusers, Utrecht, Netherlands.
26. Cantor, J. M. (2014, December). *Understanding pedophilia and the brain: Implications for safety and society.* Keynote address for The Jewish Community Confronts Violence and Abuse: Crisis Centre for Religious Women, Jerusalem, Israel.
27. Cantor, J. M. (2014, October). *Understanding pedophilia & the brain.* Invited full-day workshop for the Sex Offender Assessment Board of Pennsylvania, Harrisburg, PA.
28. Cantor, J. M. (2014, September). *Understanding neuroimaging of pedophilia: Current status and implications.* Invited lecture presented to the Mental Health and Addition Rounds, St. Joseph's Healthcare, Hamilton, Ontario, Canada.
29. Cantor, J. M. (2014, June). *An evening with Dr. James Cantor.* Invited lecture presented to the Ontario Medical Association, District 11 Doctors' Lounge Program, Toronto, Ontario, Canada.
30. Cantor, J. M. (2014, April). *Pedophilia and the brain.* Invited lecture presented to the University of Toronto Medical Students lunchtime lecture. Toronto, Ontario, Canada.
31. Cantor, J. M. (2014, February). *Pedophilia and the brain: Recap and update.* Workshop presented at the 2014 annual meeting of the Washington State Association for the Treatment of Sexual Abusers, Cle Elum, WA.
32. Cantor, J. M., Lafaille, S., Hannah, J., Kucyi, A., Soh, D., Girard, T. A., & Mikulis, D. M. (2014, February). *Functional connectivity in pedophilia.* Neuropsychiatry Rounds, Toronto Western Hospital, Toronto, Ontario, Canada.

33. Cantor, J. M. (2013, November). *Understanding pedophilia and the brain: The basics, the current status, and their implications.* Invited lecture to the Forensic Psychology Research Centre, Carleton University, Ottawa, Canada.
34. Cantor, J. M. (2013, November). *Mistaking puberty, mistaking hebephilia.* Keynote address presented to the 32nd annual meeting of the Association for the Treatment of Sexual Abusers, Chicago, IL.
35. Cantor, J. M. (2013, October). *Understanding pedophilia and the brain: A recap and update.* Invited workshop presented at the 32nd annual meeting of the Association for the Treatment of Sexual Abusers, Chicago, IL.
36. Cantor, J. M. (2013, October). *Compulsive-hyper-sex-addiction: I don't care what we all it, what can we* do*?* Invited address presented to the Board of Examiners of Sex Therapists and Counselors of Ontario, Toronto, Ontario, Canada.
37. Cantor, J. M. (2013, September). *Neuroimaging of pedophilia: Current status and implications.* McGill University Health Centre, Department of Psychiatry Grand Rounds presentation, Montréal, Québec, Canada.
38. Cantor, J. M. (2013, April). *Understanding pedophilia and the brain.* Invited workshop presented at the 2013 meeting of the Minnesota Association for the Treatment of Sexual Abusers, Minneapolis, MN.
39. Cantor, J. M. (2013, April). *The neurobiology of pedophilia and its implications for assessment, treatment, and public policy.* Invited lecture at the 38th annual meeting of the Society for Sex Therapy and Research, Baltimore, MD.
40. Cantor, J. M. (2013, April). *Sex offenders: Relating research to policy.* Invited roundtable presentation at the annual meeting of the Academy of Criminal Justice Sciences, Dallas, TX.
41. Cantor, J. M. (2013, March). *Pedophilia and brain research: From the basics to the state-of-the-art.* Invited workshop presented to the annual meeting of the Forensic Mental Health Association of California, Monterey, CA.
42. Cantor, J. M. (2013, January). *Pedophilia and child molestation.* Invited lecture presented to the Canadian Border Services Agency, Toronto, Ontario, Canada.
43. Cantor, J. M. (2012, November). *Understanding pedophilia and sexual offenders against children: Neuroimaging and its implications for public safety.* Invited guest lecture to University of New Mexico School of Medicine Health Sciences Center, Albuquerque, NM.
44. Cantor, J. M. (2012, November). *Pedophilia and brain research.* Invited guest lecture to the annual meeting of the Circles of Support and Accountability, Toronto, Ontario, Canada.
45. Cantor, J. M. (2012, January). *Current findings on pedophilia brain research.* Invited workshop at the San Diego International Conference on Child and Family Maltreatment, San Diego, CA.
46. Cantor, J. M. (2012, January). *Pedophilia and the risk to re-offend.* Invited lecture to the Ontario Court of Justice Judicial Development Institute, Toronto, Ontario, Canada.
47. Cantor, J. M. (2011, November). *Pedophilia and the brain: What it means for assessment, treatment, and policy.* Plenary Lecture presented at the Association for the Treatment of Sexual Abusers, Toronto, Ontario, Canada.
48. Cantor, J. M. (2011, July). *Towards understanding contradictory findings in the neuroimaging of pedophilic men.* Keynote address to 7th annual conference on Research in Forensic Psychiatry, Regensberg, Germany.

49. Cantor, J. M. (2011, March). *Understanding sexual offending and the brain: Brain basics to the state of the art.* Workshop presented at the winter conference of the Oregon Association for the Treatment of Sexual Abusers, Oregon City, OR.
50. Cantor, J. M. (2010, October). *Manuscript publishing for students.* Workshop presented at the 29th annual meeting of the Association for the Treatment of Sexual Abusers, Phoenix, AZ.
51. Cantor, J. M. (2010, August). *Is sexual orientation a paraphilia?* Invited lecture at the International Behavioral Development Symposium, Lethbridge, Alberta, Canada.
52. Cantor, J. M. (2010, March). *Understanding sexual offending and the brain: From the basics to the state of the art.* Workshop presented at the annual meeting of the Washington State Association for the Treatment of Sexual Abusers, Blaine, WA.
53. Cantor, J. M. (2009, January). *Brain structure and function of pedophilia men.* Neuropsychiatry Rounds, Toronto Western Hospital, Toronto, Ontario.
54. Cantor, J. M. (2008, April). *Is pedophilia caused by brain dysfunction?* Invited address to the University-wide Science Day Lecture Series, SUNY Oswego, Oswego, NY.
55. Cantor, J. M., Kabani, N., Christensen, B. K., Zipursky, R. B., Barbaree, H. E., Dickey, R., Klassen, P. E., Mikulis, D. J., Kuban, M. E., Blak, T., Richards, B. A., Hanratty, M. K., & Blanchard, R. (2006, September). *MRIs of pedophilic men.* Invited presentation at the 25th annual meeting of the Association for the Treatment of Sexual Abusers, Chicago.
56. Cantor, J. M., Blanchard, R., & Christensen, B. K. (2003, March). *Findings in and implications of neuropsychology and epidemiology of pedophilia.* Invited lecture at the 28th annual meeting of the Society for Sex Therapy and Research, Miami.
57. Cantor, J. M., Christensen, B. K., Klassen, P. E., Dickey, R., & Blanchard, R. (2001, July). *Neuropsychological functioning in pedophiles.* Invited lecture presented at the 27th annual meeting of the International Academy of Sex Research, Bromont, Canada.
58. Cantor, J. M., Blanchard, R., Christensen, B., Klassen, P., & Dickey, R. (2001, February). *First glance at IQ, memory functioning and handedness in sex offenders.* Lecture presented at the Forensic Lecture Series, Centre for Addiction and Mental Health, Toronto, Ontario, Canada.
59. Cantor, J. M. (1999, November). *Reversal of SSRI-induced male sexual dysfunction: Suggestions from an animal model.* Grand Rounds presentation at the Allan Memorial Institute, Royal Victoria Hospital, Montréal, Canada.

PAPER PRESENTATIONS AND SYMPOSIA

1. Cantor, J. M. (2020, April). "I'd rather have a trans kid than a dead kid": Critical assessment of reported rates of suicidality in trans kids. *Paper presented at the annual meeting of the Society for the Sex Therapy and Research.* Online in lieu of in person meeting.
2. Stephens, S., Lalumière, M., Seto, M. C., & Cantor, J. M. (2017, October). *The relationship between sexual responsiveness and sexual exclusivity in phallometric profiles.* Paper presented at the annual meeting of the Canadian Sex Research Forum, Fredericton, New Brunswick, Canada.
3. Stephens, S., Cantor, J. M., & Seto, M. C. (2017, March). *Can the SSPI-2 detect hebephilic sexual interest?* Paper presented at the annual meeting of the American-Psychology Law Society Annual Meeting, Seattle, WA.
4. Stephens, S., Seto, M. C., Goodwill, A. M., & Cantor, J. M. (2015, October). *Victim choice polymorphism and recidivism.* Symposium Presentation. Paper presented at the 34th annual meeting of the Association for the Treatment of Sexual Abusers, Montréal, Canada.
5. McPhail, I. V., Hermann, C. A., Fernane, S. Fernandez, Y., Cantor, J. M., & Nunes, K. L. (2014, October). *Sexual deviance in sexual offenders against children: A meta-analytic review of phallometric research.* Paper presented at the 33rd annual meeting of the Association for the Treatment of Sexual Abusers, San Diego, CA.
6. Stephens, S., Seto, M. C., Cantor, J. M., & Goodwill, A. M. (2014, October). *Is hebephilic sexual interest a criminogenic need?: A large scale recidivism study.* Paper presented at the 33rd annual meeting of the Association for the Treatment of Sexual Abusers, San Diego, CA.
7. Stephens, S., Seto, M. C., Cantor, J. M., & Lalumière, M. (2014, October). *Development and validation of the Revised Screening Scale for Pedophilic Interests (SSPI–2).* Paper presented at the 33rd annual meeting of the Association for the Treatment of Sexual Abusers, San Diego, CA.
8. Cantor, J. M., Lafaille, S., Hannah, J., Kucyi, A., Soh, D., Girard, T. A., & Mikulis, D. M. (2014, September). *Pedophilia and the brain: White matter differences detected with DTI.* Paper presented at the 13th annual meeting of the International Association for the Treatment of Sexual Abusers, Porto, Portugal.
9. Stephens, S., Seto, M., Cantor, J. M., Goodwill, A. M., & Kuban, M. (2014, March). *The role of hebephilic sexual interests in sexual victim choice.* Paper presented at the annual meeting of the American Psychology and Law Society, New Orleans, LA.
10. McPhail, I. V., Fernane, S. A., Hermann, C. A., Fernandez, Y. M., Nunes, K. L., & Cantor, J. M. (2013, November). *Sexual deviance and sexual recidivism in sexual offenders against children: A meta-analysis.* Paper presented at the 32nd annual meeting of the Association for the Treatment of Sexual Abusers, Chicago, IL.
11. Cantor, J. M. (2013, September). *Pedophilia and the brain: Current MRI research and its implications.* Paper presented at the 21st annual World Congress for Sexual Health, Porto Alegre, Brazil. [Featured among Best Abstracts, top 10 of 500.]
12. Cantor, J. M. (Chair). (2012, March). *Innovations in sex research.* Symposium conducted at the 37th annual meeting of the Society for Sex Therapy and Research, Chicago.
13. Cantor, J. M., & Blanchard, R. (2011, August). fMRI versus phallometry in the diagnosis of pedophilia and hebephilia. In J. M. Cantor (Chair), *Neuroimaging of men's object*

preferences. Symposium presented at the 37th annual meeting of the International Academy of Sex Research, Los Angeles, USA.

14. Cantor, J. M. (Chair). (2011, August). *Neuroimaging of men's object preferences.* Symposium conducted at the 37th annual meeting of the International Academy of Sex Research, Los Angeles.
15. Cantor, J. M. (2010, October). A meta-analysis of neuroimaging studies of male sexual arousal. In S. Stolerú (Chair), *Brain processing of sexual stimuli in pedophilia: An application of functional neuroimaging.* Symposium presented at the 29th annual meeting of the Association for the Treatment of Sexual Abusers, Phoenix, AZ.
16. Chivers, M. L., Seto, M. C., Cantor, J. C., Grimbos, T., & Roy, C. (April, 2010). *Psychophysiological assessment of sexual activity preferences in women.* Paper presented at the 35th annual meeting of the Society for Sex Therapy and Research, Boston, USA.
17. Cantor, J. M., Girard, T. A., & Lovett-Barron, M. (2008, November). *The brain regions that respond to erotica: Sexual neuroscience for dummies.* Paper presented at the 51st annual meeting of the Society for the Scientific Study of Sexuality, San Juan, Puerto Rico.
18. Barbaree, H., Langton, C., Blanchard, R., & Cantor, J. M. (2007, October). *The role of age-at-release in the evaluation of recidivism risk of sexual offenders.* Paper presented at the 26th annual meetingof the Association for the Treatment of Sexual Abusers, San Diego.
19. Cantor, J. M., Kabani, N., Christensen, B. K., Zipursky, R. B., Barbaree, H. E., Dickey, R., Klassen, P. E., Mikulis, D. J., Kuban, M. E., Blak, T., Richards, B. A., Hanratty, M. K., & Blanchard, R. (2006, July). *Pedophilia and brain morphology.* Abstract and paper presented at the 32nd annual meeting of the International Academy of Sex Research, Amsterdam, Netherlands.
20. Seto, M. C., Cantor, J. M., & Blanchard, R. (2006, March). *Child pornography offending is a diagnostic indicator of pedophilia*. Paper presented at the 2006 annual meeting of the American Psychology-Law Society Conference, St. Petersburg, Florida.
21. Blanchard, R., Cantor, J. M., Bogaert, A. F., Breedlove, S. M., & Ellis, L. (2005, August). *Interaction of fraternal birth order and handedness in the development of male homosexuality.* Abstract and paper presented at the International Behavioral Development Symposium, Minot, North Dakota.
22. Cantor, J. M., & Blanchard, R. (2005, July). *Quantitative reanalysis of aggregate data on IQ in sexual offenders.* Abstract and poster presented at the 31st annual meeting of the International Academy of Sex Research, Ottawa, Canada.
23. Cantor, J. M. (2003, August). *Sex reassignment on demand: The clinician's dilemma.* Paper presented at the 111th annual meeting of the American Psychological Association, Toronto, Canada.
24. Cantor, J. M. (2003, June). *Meta-analysis of VIQ–PIQ differences in male sex offenders.* Paper presented at the Harvey Stancer Research Day, Toronto, Ontario, Canada.
25. Cantor, J. M. (2002, August). *Gender role in autogynephilic transsexuals: The more things change…* Paper presented at the 110th annual meeting of the American Psychological Association, Chicago.

26. Cantor, J. M., Christensen, B. K., Klassen, P. E., Dickey, R., & Blanchard, R. (2001, June). *IQ, memory functioning, and handedness in male sex offenders.* Paper presented at the Harvey Stancer Research Day, Toronto, Ontario, Canada.
27. Cantor, J. M. (1998, August). *Convention orientation for lesbian, gay, and bisexual students*. Papers presented at the 106th annual meeting of the American Psychological Association.
28. Cantor, J. M. (1997, August). *Discussion hour for lesbian, gay, and bisexual students*. Presented at the 105th annual meeting of the American Psychological Association.
29. Cantor, J. M. (1997, August). *Convention orientation for lesbian, gay, and bisexual students*. Paper presented at the 105th annual meeting of the American Psychological Association.
30. Cantor, J. M. (1996, August). *Discussion hour for lesbian, gay, and bisexual students*. Presented at the 104th annual meeting of the American Psychological Association.
31. Cantor, J. M. (1996, August). *Symposium: Question of inclusion: Lesbian and gay psychologists and accreditation*. Paper presented at the 104th annual meeting of the American Psychological Association, Toronto.
32. Cantor, J. M. (1996, August). *Convention orientation for lesbian, gay, and bisexual students*. Papers presented at the 104th annual meeting of the American Psychological Association.
33. Cantor, J. M. (1995, August). *Discussion hour for lesbian, gay, and bisexual students*. Presented at the 103rd annual meeting of the American Psychological Association.
34. Cantor, J. M. (1995, August). *Convention orientation for lesbian, gay, and bisexual students*. Papers presented at the 103rd annual meeting of the American Psychological Association.
35. Cantor, J. M. (1994, August). *Discussion hour for lesbian, gay, and bisexual students*. Presented at the 102nd annual meeting of the American Psychological Association.
36. Cantor, J. M. (1994, August). *Convention orientation for lesbian, gay, and bisexual students*. Papers presented at the 102nd annual meeting of the American Psychological Association.
37. Cantor, J. M., & Pilkington, N. W. (1992, August). *Homophobia in psychology programs: A survey of graduate students.* Paper presented at the Centennial Convention of the American Psychological Association, Washington, DC. (ERIC Document Reproduction Service No. ED 351 618)
38. Cantor, J. M. (1991, August). *Being gay and being a graduate student: Double the memberships, four times the problems*. Paper presented at the 99th annual meeting of the American Psychological Association, San Francisco.

POSTER PRESENTATIONS

1. Klein, L., Stephens, S., Goodwill, A. M., Cantor, J. M., & Seto, M. C. (2015, October). *The psychological propensities of risk in undetected sexual offenders.* Poster presented at the 34th annual meeting of the Association for the Treatment of Sexual Abusers, Montréal, Canada.
2. Pullman, L. E., Stephens, S., Seto, M. C., Goodwill, A. M., & Cantor, J. M. (2015, October). *Why are incest offenders less likely to recidivate?* Poster presented at the 34th annual meeting of the Association for the Treatment of Sexual Abusers, Montréal, Canada.
3. Seto, M. C., Stephens, S. M., Cantor, J. M., Lalumiere, M. L., Sandler, J. C., & Freeman, N. A. (2015, August). *The development and validation of the Revised Screening Scale for Pedophilic Interests (SSPI-2).* Poster presentation at the 41st annual meeting of the International Academy of Sex Research. Toronto, Canada.
4. Soh, D. W., & Cantor, J. M. (2015, August). *A peek inside a furry convention.* Poster presentation at the 41st annual meeting of the International Academy of Sex Research. Toronto, Canada.
5. VanderLaan, D. P., Lobaugh, N. J., Chakravarty, M. M., Patel, R., Chavez, S. Stojanovski, S. O., Takagi, A., Hughes, S. K., Wasserman, L., Bain, J., Cantor, J. M., & Zucker, K. J. (2015, August). *The neurohormonal hypothesis of gender dysphoria: Preliminary evidence of cortical surface area differences in adolescent natal females.* Poster presentation at the 31st annual meeting of the International Academy of Sex Research. Toronto, Canada.
6. Cantor, J. M., Lafaille, S. J., Moayedi, M., Mikulis, D. M., & Girard, T. A. (2015, June). *Diffusion tensor imaging (DTI) of the brain in pedohebephilic men: Preliminary analyses.* Harvey Stancer Research Day, Toronto, Ontario Canada.
7. Newman, J. E., Stephens, S., Seto, M. C., & Cantor, J. M. (2014, October). *The validity of the Static-99 in sexual offenders with low intellectual abilities.* Poster presentation at the 33rd annual meeting of the Association for the Treatment of Sexual Abusers, San Diego, CA.
8. Lykins, A. D., Walton, M. T., & Cantor, J. M. (2014, June). *An online assessment of personality, psychological, and sexuality trait variables associated with self-reported hypersexual behavior.* Poster presentation at the 30th annual meeting of the International Academy of Sex Research, Dubrovnik, Croatia.
9. Stephens, S., Seto, M. C., Cantor, J. M., Goodwill, A. M., & Kuban, M. (2013, November). *The utility of phallometry in the assessment of hebephilia.* Poster presented at the 32nd annual meeting of the Association for the Treatment of Sexual Abusers, Chicago.
10. Stephens, S., Seto, M. C., Cantor, J. M., Goodwill, A. M., & Kuban, M. (2013, October). *The role of hebephilic sexual interests in sexual victim choice.* Poster presented at the 32nd annual meeting of the Association for the Treatment of Sexual Abusers, Chicago.
11. Fazio, R. L., & Cantor, J. M. (2013, October). *Analysis of the Fazio Laterality Inventory (FLI) in a population with established atypical handedness.* Poster presented at the 33rd annual meeting of the National Academy of Neuropsychology, San Diego.
12. Lafaille, S., Hannah, J., Soh, D., Kucyi, A., Girard, T. A., Mikulis, D. M., & Cantor, J. M. (2013, August). *Investigating resting state networks in pedohebephiles.* Poster presented at the 29th annual meeting of the International Academy of Sex Research, Chicago.

13. McPhail, I. V., Lykins, A. D., Robinson, J. J., LeBlanc, S., & Cantor, J. M. (2013, August). *Effects of prescription medication on volumetric phallometry output.* Poster presented at the 29th annual meeting of the International Academy of Sex Research, Chicago.
14. Murray, M. E., Dyshniku, F., Fazio, R. L., & Cantor, J. M. (2013, August). *Minor physical anomalies as a window into the prenatal origins of pedophilia.* Poster presented at the 29th annual meeting of the International Academy of Sex Research, Chicago.
15. Sutton, K. S., Stephens, S., Dyshniku, F., Tulloch, T., & Cantor, J. M. (2013, August). *Pilot group treatment for "procrasturbation."* Poster presented at 39th annual meeting of the International Academy of Sex Research, Chicago.
16. Sutton, K. S., Pytyck, J., Stratton, N., Sylva, D., Kolla, N., & Cantor, J. M. (2013, August). *Client characteristics by type of hypersexuality referral: A quantitative chart review.* Poster presented at the 39th annual meeting of the International Academy of Sex Research, Chicago.
17. Fazio, R. L., & Cantor, J. M. (2013, June). *A replication and extension of the psychometric properties of the Digit Vigilance Test.* Poster presented at the 11th annual meeting of the American Academy of Clinical Neuropsychology, Chicago.
18. Lafaille, S., Moayedi, M., Mikulis, D. M., Girard, T. A., Kuban, M., Blak, T., & Cantor, J. M. (2012, July). *Diffusion Tensor Imaging (DTI) of the brain in pedohebephilic men: Preliminary analyses.* Poster presented at the 38th annual meeting of the International Academy of Sex Research, Lisbon, Portugal.
19. Lykins, A. D., Cantor, J. M., Kuban, M. E., Blak, T., Dickey, R., Klassen, P. E., & Blanchard, R. (2010, July). *Sexual arousal to female children in gynephilic men.* Poster presented at the 38th annual meeting of the International Academy of Sex Research, Prague, Czech Republic.
20. Cantor, J. M., Girard, T. A., Lovett-Barron, M., & Blak, T. (2008, July). *Brain regions responding to visual sexual stimuli: Meta-analysis of PET and fMRI studies.* Abstract and poster presented at the 34th annual meeting of the International Academy of Sex Research, Leuven, Belgium.
21. Lykins, A. D., Blanchard, R., Cantor, J. M., Blak, T., & Kuban, M. E. (2008, July). *Diagnosing sexual attraction to children: Considerations for DSM-V.* Poster presented at the 34th annual meeting of the International Academy of Sex Research, Leuven, Belgium.
22. Cantor, J. M., Blak, T., Kuban, M. E., Klassen, P. E., Dickey, R. and Blanchard, R. (2007, October). *Physical height in pedophilia and hebephilia.* Poster presented at the 26th annual meeting of the Association for the Treatment of Sexual Abusers, San Diego.
23. Cantor, J. M., Blak, T., Kuban, M. E., Klassen, P. E., Dickey, R. and Blanchard, R. (2007, August). *Physical height in pedophilia and hebephilia.* Abstract and poster presented at the 33rd annual meeting of the International Academy of Sex Research, Vancouver, Canada.
24. Puts, D. A., Blanchard, R., Cardenas, R., Cantor, J., Jordan, C. L., & Breedlove, S. M. (2007, August). *Earlier puberty predicts superior performance on male-biased visuospatial tasks in men but not women.* Abstract and poster presented at the 33rd annual meeting of the International Academy of Sex Research, Vancouver, Canada.
25. Seto, M. C., Cantor, J. M., & Blanchard, R. (2005, November). *Possession of child pornography is a diagnostic indicator of pedophilia.* Poster presented at the 24th annual meeting of the Association for the Treatment of Sexual Abusers, New Orleans.

26. Blanchard, R., Cantor, J. M., Bogaert, A. F., Breedlove. S. M., & Ellis, L. (2005, July). *Interaction of fraternal birth order and handedness in the development of male homosexuality.* Abstract and poster presented at the 31st annual meeting of the International Academy of Sex Research, Ottawa, Canada.
27. Cantor, J. M., & Blanchard, R. (2003, July). *The reported VIQ–PIQ differences in male sex offenders are artifactual?* Abstract and poster presented at the 29th annual meeting of the International Academy of Sex Research, Bloomington, Indiana.
28. Christensen, B. K., Cantor, J. M., Millikin, C., & Blanchard, R. (2002, February). *Factor analysis of two brief memory tests: Preliminary evidence for modality-specific measurement.* Poster presented at the 30th annual meeting of the International Neuropsychological Society, Toronto, Ontario, Canada.
29. Cantor, J. M., Blanchard, R., Paterson, A., Bogaert, A. (2000, June). *How many gay men owe their sexual orientation to fraternal birth order?* Abstract and poster presented at the International Behavioral Development Symposium, Minot, North Dakota.
30. Cantor, J. M., Binik, Y., & Pfaus, J. G. (1996, November). *Fluoxetine inhibition of male rat sexual behavior: Reversal by oxytocin*. Poster presented at the 26th annual meeting of the Society for Neurosciences, Washington, DC.
31. Cantor, J. M., Binik, Y., & Pfaus, J. G. (1996, June). *An animal model of fluoxetine-induced sexual dysfunction: Dose dependence and time course*. Poster presented at the 28th annual Conference on Reproductive Behavior, Montréal, Canada.
32. Cantor, J. M., O'Connor, M. G., Kaplan, B., & Cermak, L. S. (1993, June). *Transient events test of retrograde memory: Performance of amnestic and unimpaired populations*. Poster presented at the 2nd annual science symposium of the Massachusetts Neuropsychological Society, Cambridge, MA.

EDITORIAL AND PEER-REVIEWING ACTIVITIES

Editor-in-Chief

Sexual Abuse: A Journal of Research and Treatment	Jan., 2010–Dec., 2014

Editorial Board Memberships

Journal of Sexual Aggression	Jan., 2010–Dec., 2021
Journal of Sex Research, The	Jan., 2008–Aug., 2020
Sexual Abuse: A Journal of Research and Treatment	Jan., 2006–Dec., 2019
Archives of Sexual Behavior	Jan., 2004–Present
The Clinical Psychologist	Jan., 2004–Dec., 2005

Ad hoc Journal Reviewer Activity

American Journal of Psychiatry
Annual Review of Sex Research
Archives of General Psychiatry
Assessment
Biological Psychiatry
BMC Psychiatry
Brain Structure and Function
British Journal of Psychiatry
British Medical Journal
Canadian Journal of Behavioural Science
Canadian Journal of Psychiatry
Cerebral Cortex
Clinical Case Studies
Comprehensive Psychiatry
Developmental Psychology
European Psychologist
Frontiers in Human Neuroscience
Human Brain Mapping
International Journal of Epidemiology
International Journal of Impotence Research
International Journal of Sexual Health
International Journal of Transgenderism
Journal of Abnormal Psychology
Journal of Clinical Psychology
Journal of Consulting and Clinical Psychology
Journal of Forensic Psychology Practice
Journal for the Scientific Study of Religion
Journal of Sexual Aggression
Journal of Sexual Medicine
Journal of Psychiatric Research
Nature Neuroscience
Neurobiology Reviews
Neuroscience & Biobehavioral Reviews
Neuroscience Letters
Proceedings of the Royal Society B (Biological Sciences)
Psychological Assessment
Psychological Medicine
Psychological Science
Psychology of Men & Masculinity
Sex Roles
Sexual and Marital Therapy
Sexual and Relationship Therapy
Sexuality & Culture
Sexuality Research and Social Policy
The Clinical Psychologist
Traumatology
World Journal of Biological Psychiatry

GRANT REVIEW PANELS

2017–2021	Member, College of Reviewers, *Canadian Institutes of Health Research,* Canada.
2017	Committee Member, Peer Review Committee—Doctoral Research Awards A. *Canadian Institutes of Health Research*, Canada.
2017	Member, International Review Board, Research collaborations on behavioural disorders related to violence, neglect, maltreatment and abuse in childhood and adolescence. *Bundesministerium für Bildung und Forschung [Ministry of Education and Research],* Germany.
2016	Reviewer. National Science Center [*Narodowe Centrum Nauki*], Poland.
2016	Committee Member, Peer Review Committee—Doctoral Research Awards A. *Canadian Institutes of Health Research*, Canada.
2015	Assessor (Peer Reviewer). Discovery Grants Program. *Australian Research Council,* Australia.
2015	Reviewer. *Czech Science Foundation,* Czech Republic.
2015	Reviewer, "Off the beaten track" grant scheme. *Volkswagen Foundation,* Germany.
2015	External Reviewer, Discovery Grants program—Biological Systems and Functions. *National Sciences and Engineering Research Council of Canada*, Canada
2015	Committee Member, Peer Review Committee—Doctoral Research Awards A. *Canadian Institutes of Health Research*, Canada.
2014	Assessor (Peer Reviewer). Discovery Grants Program. *Australian Research Council,* Australia.
2014	External Reviewer, Discovery Grants program—Biological Systems and Functions. *National Sciences and Engineering Research Council of Canada*, Canada.
2014	Panel Member, Dean's Fund—Clinical Science Panel. *University of Toronto Faculty of Medicine*, Canada.
2014	Committee Member, Peer Review Committee—Doctoral Research Awards A. *Canadian Institutes of Health Research*, Canada.
2013	Panel Member, Grant Miller Cancer Research Grant Panel. *University of Toronto Faculty of Medicine*, Canada.

2013	Panel Member, Dean of Medicine Fund New Faculty Grant Clinical Science Panel. *University of Toronto Faculty of Medicine,* Canada.
2012	Board Member, International Review Board, Research collaborations on behavioural disorders related to violence, neglect, maltreatment and abuse in childhood and adolescence (2nd round). *Bundesministerium für Bildung und Forschung [Ministry of Education and Research],* Germany.
2012	External Reviewer, University of Ottawa Medical Research Fund. *University of Ottawa Department of Psychiatry*, Canada.
2012	External Reviewer, Behavioural Sciences—B. *Canadian Institutes of Health Research*, Canada.
2011	Board Member, International Review Board, Research collaborations on behavioural disorders related to violence, neglect, maltreatment and abuse in childhood and adolescence. *Bundesministerium für Bildung und Forschung [Ministry of Education and Research],* Germany.

TEACHING AND TRAINING

PostDoctoral Research Supervision
Law & Mental Health Program, Centre for Addiction and Mental Health, Toronto, Canada

Dr. Katherine S. Sutton	Sept., 2012–Dec., 2013
Dr. Rachel Fazio	Sept., 2012–Aug., 2013
Dr. Amy Lykins	Sept., 2008–Nov., 2009

Doctoral Research Supervision
Centre for Addiction and Mental Health, Toronto, Canada

Michael Walton • University of New England, Australia	Sept., 2017–Aug., 2018
Debra Soh • York University	May, 2013–Aug, 2017
Skye Stephens • Ryerson University	April, 2012–June, 2016

Masters Research Supervision
Centre for Addiction and Mental Health, Toronto, Canada

Nicole Cormier • Ryerson University	June, 2012–present
Debra Soh • Ryerson University	May, 2009–April, 2010

Undergraduate Research Supervision
Centre for Addiction and Mental Health, Toronto, Canada

Kylie Reale • Ryerson University	Spring, 2014
Jarrett Hannah • University of Rochester	Summer, 2013
Michael Humeniuk • University of Toronto	Summer, 2012

Clinical Supervision (Doctoral Internship)
Clinical Internship Program, Centre for Addiction and Mental Health, Toronto, Canada

Katherine S. Sutton • Queen's University	2011–2012
David Sylva • Northwestern University	2011–2012
Jordan Rullo • University of Utah	2010–2011
Lea Thaler • University of Nevada, Las Vegas	2010–2011
Carolin Klein • University of British Columbia	2009–2010
Bobby R. Walling • University of Manitoba	2009–2010

TEACHING AND TRAINING

Clinical Supervision (Doctoral- and Masters- level practica)
Centre for Addiction and Mental Health, Toronto, Canada

Tyler Tulloch • Ryerson University	2013–2014
Natalie Stratton • Ryerson University	Summer, 2013
Fiona Dyshniku • University of Windsor	Summer, 2013
Mackenzie Becker • McMaster University	Summer, 2013
Skye Stephens • Ryerson University	2012–2013
Vivian Nyantakyi • Capella University	2010–2011
Cailey Hartwick • University of Guelph	Fall, 2010
Tricia Teeft • Humber College	Summer, 2010
Allison Reeves • Ontario Institute for Studies in Education/Univ. of Toronto	2009–2010
Helen Bailey • Ryerson University	Summer, 2009
Edna Aryee • Ontario Institute for Studies in Education/Univ. of Toronto	2008–2009
Iryna Ivanova • Ontario Institute for Studies in Education/Univ. of Toronto	2008–2009
Jennifer Robinson • Ontario Institute for Studies in Education/Univ. of Toronto	2008–2009
Zoë Laksman • Adler School of Professional Psychology	2005–2006
Diana Mandelew • Adler School of Professional Psychology	2005–2006
Susan Wnuk • York University	2004–2005
Hiten Lad • Adler School of Professional Psychology	2004–2005
Natasha Williams • Adler School of Professional Psychology	2003–2004
Lisa Couperthwaite • Ontario Institute for Studies in Education/Univ. of Toronto	2003–2004
Lori Gray, née Robichaud • University of Windsor	Summer, 2003
Sandra Belfry • Ontario Institute for Studies in Education/Univ. of Toronto	2002–2003
Althea Monteiro • York University	Summer, 2002
Samantha Dworsky • York University	2001–2002
Kerry Collins • University of Windsor	Summer, 2001
Jennifer Fogarty • Waterloo University	2000–2001
Emily Cripps • Waterloo University	Summer, 2000
Lee Beckstead • University of Utah	2000

PROFESSIONAL SOCIETY ACTIVITIES

OFFICES HELD

2018–2019	Local Host. Society for Sex Therapy and Research.
2015	Member, International Scientific Committee, World Association for Sexual Health.
2015	Member, Program Planning and Conference Committee, Association for the Treatment of Sexual Abusers
2012–2013	Chair, Student Research Awards Committee, Society for Sex Therapy & Research
2012–2013	Member, Program Planning and Conference Committee, Association for the Treatment of Sexual Abusers
2011–2012	Chair, Student Research Awards Committee, Society for Sex Therapy & Research
2010–2011	Scientific Program Committee, International Academy of Sex Research
2002–2004	Membership Committee • APA Division 12 (Clinical Psychology)
2002–2003	Chair, Committee on Science Issues, APA Division 44
2002	Observer, Grant Review Committee • Canadian Institutes of Health Research Behavioural Sciences (B)
2001–2009	Reviewer • APA Division 44 Convention Program Committee
2001, 2002	Reviewer • APA Malyon-Smith Scholarship Committee
2000–2005	Task Force on Transgender Issues, APA Division 44
1998–1999	Consultant, APA Board of Directors Working Group on Psychology Marketplace
1997	Student Representative • APA Board of Professional Affairs' Institute on TeleHealth
1997–1998	Founder and Chair • APA/APAGS Task Force on New Psychologists' Concerns
1997–1999	Student Representative • APA/CAPP Sub-Committee for a National Strategy for Prescription Privileges
1997–1999	Liaison • APA Committee for the Advancement of Professional Practice
1997–1998	Liaison • APA Board of Professional Affairs
1993–1997	Founder and Chair • APA/APAGS Committee on LGB Concerns

PROFESSIONAL SOCIETY ACTIVITIES

MEMBERSHIPS

2017–2021 Member • *Canadian Sex Research Forum*

2009–Present Member • *Society for Sex Therapy and Research*

2006–Present Member (elected) • *International Academy of Sex Research*

2006–Present Research and Clinical Member • *Association for the Treatment of Sex Abusers*

2003–2006 Associate Member (elected) • *International Academy of Sex Research*

2002 Founding Member • CPA Section on Sexual Orientation and Gender Identity

2001–2013 Member • *Canadian Psychological Association* (CPA)

2000–2015 Member • *American Association for the Advancement of Science*

2000–2015 Member • *American Psychological Association* (APA)

APA Division 12 (Clinical Psychology)

APA Division 44 (Society for the Psychological Study of LGB Issues)

2000–2020 Member • *Society for the Scientific Study of Sexuality*

1995–2000 Student Member • *Society for the Scientific Study of Sexuality*

1993–2000 Student Affiliate • *American Psychological Association*

1990–1999 Member, American Psychological Association of Graduate Students (APAGS)

CLINICAL LICENSURE/REGISTRATION

Certificate of Registration, Number 3793
College of Psychologists of Ontario, Ontario, Canada

AWARDS AND HONORS

2017 Elected Fellow, Association for the Treatment of Sexual Abusers

2011 Howard E. Barbaree Award for Excellence in Research
Centre for Addiction and Mental Health, Law and Mental Health Program

2004 fMRI Visiting Fellowship Program at Massachusetts General Hospital
American Psychological Association Advanced Training Institute and NIH

1999–2001 CAMH Post-Doctoral Research Fellowship
Centre for Addiction and Mental Health Foundation and Ontario Ministry of Health

1998 Award for Distinguished Contribution by a Student
American Psychological Association, Division 44

1995 Dissertation Research Grant
Society for the Scientific Study of Sexuality

1994–1996 McGill University Doctoral Scholarship

1994 Award for Outstanding Contribution to Undergraduate Teaching
"TA of the Year Award," from the McGill Psychology Undergraduate Student Association

MAJOR MEDIA

(Complete list available upon request.)

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2021	Allan M. Josephson v Neeli Bendapudi	Western District of Kentucky
2021	Re Commitment of Michael Hughes (Frye Hearing)	Cook County, Illinois
2019	US vs Peter Bright	Southern District of New York, NY
2019	Probate and Family Court (Custody Hearing)	Boston, Massachusetts
2019	Re Commitment of Steven Casper (Frye Hearing)	Kendall County, Illinois
2019	Re Commitment of Inger (Frye Hearing)	Poughkeepsie, NY
2018	Re Commitment of Fernando Little (Frye Hearing)	Utica, NY
2018	Canada vs John Fitzpatrick (Sentencing Hearing)	Toronto, Ontario, Canada

EXPERT REPORT OF JAMES M. CANTOR, PHD

APPENDIX 2

JOURNAL OF SEX & MARITAL THERAPY
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Transgender and Gender Diverse Children and Adolescents: Fact-Checking of AAP Policy

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ABSTRACT

The American Academy of Pediatrics (AAP) recently published a policy statement: *Ensuring comprehensive care and support for transgender and gender-diverse children and adolescents*. Although almost all clinics and professional associations in the world use what's called the *watchful waiting* approach to helping gender diverse (GD) children, the AAP statement instead rejected that consensus, endorsing *gender affirmation* as the only acceptable approach. Remarkably, not only did the AAP statement fail to include any of the actual outcomes literature on such cases, but it also misrepresented the contents of its citations, which repeatedly said the very opposite of what AAP attributed to them.

The American Academy of Pediatrics (AAP) recently published a policy statement entitled, *Ensuring comprehensive care and support for transgender and gender-diverse children and adolescents* (Rafferty, AAP Committee on Psychosocial Aspects of Child and Family Health, AAP Committee on Adolescence, AAP Section on Lesbian, Gay, Bisexual, and Transgender Health and Wellness, 2018). These are children who manifest discontent with the sex they were born as and desire to live as the other sex (or as some alternative gender role). The policy was quite a remarkable document: Although almost all clinics and professional associations in the world use what's called the *watchful waiting* approach to helping transgender and gender diverse (GD) children, the AAP statement rejected that consensus, endorsing only *gender affirmation*. That is, where the consensus is to delay any transitions after the onset of puberty, AAP instead rejected waiting before transition. With AAP taking such a dramatic departure from other professional associations, I was immediately curious about what evidence led them to that conclusion. As I read the works on which they based their policy, however, I was pretty surprised—rather alarmed, actually: These documents simply did not say what AAP claimed they did. In fact, the references that AAP cited as the basis of their policy instead outright contradicted that policy, repeatedly endorsing *watchful waiting*.

The AAP statement was also remarkable in what it left out—namely, the actual outcomes research on GD children. In total, there have been 11 follow-up studies of GD children, of which AAP cited one (Wallien & Cohen-Kettenis, 2008), doing so without actually mentioning the outcome data it contained. The literature on outcomes was neither reviewed, summarized, nor subjected to meta-analysis to be considered in the aggregate—It was merely disappeared. (The list of all existing studies appears in the appendix.) As they make clear, *every* follow-up study of GD children, without exception, found the same thing: Over puberty, the majority of GD children cease to want to transition. AAP is, of course, free to establish whatever policy it likes on

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whatever basis it likes. But any assertion that their policy is based on evidence is demonstrably false, as detailed below.

AAP divided clinical approaches into three types—conversion therapy, watchful waiting, and gender affirmation. It rejected the first two and endorsed *gender affirmation* as the only acceptable alternative. Most readers will likely be familiar already with attempts to use conversion therapy to change sexual orientation. With regard to gender identity, AAP wrote:

> "[C]onversion" or "reparative" treatment models are used to prevent children and adolescents from identifying as transgender or to dissuade them from exhibiting gender-diverse expressions. … Reparative approaches have been proven to be not only unsuccessful[38] but also deleterious and are considered outside the mainstream of traditional medical practice.[29,39–42]

The citations were:

38. Haldeman DC. The practice and ethics of sexual orientation conversion therapy. *J Consult Clin Psychol.* 1994;62(2):221–227.

29. Adelson SL; American Academy of Child and Adolescent Psychiatry (AACAP) Committee on Quality Issues (CQI). Practice parameter on gay, lesbian, or bisexual sexual orientation, gender nonconformity, and gender discordance in children and adolescents. *J Am Acad Child Adolesc Psychiatry.* 2012;51(9):957–974.

39. Byne W. Regulations restrict practice of conversion therapy. *LGBT Health.* 2016;3(2):97–99.

40. Cohen-Kettenis PT, Delemarrevan de Waal HA, Gooren LJ. The treatment of adolescent transsexuals: changing insights. *J Sex Med.* 2008;5(8):1892–1897.

41. Bryant K. Making gender identity disorder of childhood: historical lessons for contemporary debates. *Sex Res Soc Policy.* 2006;3(3):23–39.

42. World Professional Association for Transgender Health. *WPATH De-Psychopathologisation Statement.* Minneapolis, MN: World Professional Association for Transgender Health; 2010.

AAP's claims struck me as odd because *there are no studies of conversion therapy for gender identity.* Studies of conversion therapy have been limited to *sexual orientation,* and, moreover, to the sexual orientation *of adults,* not to gender identity and not of children in any case. The article AAP cited to support their claim (reference number 38) is indeed a classic and well-known review, but it is a review of sexual orientation research *only.* Neither gender identity, nor even children, received a single mention in it. Indeed, the narrower scope of that article should be clear to anyone reading even just its title: "The practice and ethics of *sexual orientation* conversion therapy" [italics added].

AAP continued, saying that conversion approaches for GD children have already been rejected by medical consensus, citing five sources. This claim struck me as just as odd, however—I recalled associations banning conversion therapy for sexual orientation, but not for gender identity, exactly because there is no evidence for generalizing from adult sexual orientation to childhood gender identity. So, I started checking AAP's citations for that, and these sources too pertained only to sexual orientation, not gender identity (specifics below). What AAP's sources *did* repeatedly emphasize was that:

A. Sexual orientation of adults is unaffected by conversion therapy and any other [known] intervention;
B. Gender dysphoria in childhood before puberty desists in the majority of cases, becoming (cis-gendered) homosexuality in adulthood, again regardless of any [known] intervention; and
C. Gender dysphoria in childhood persisting after puberty tends to persist entirely.

That is, in the context of GD children, it simply makes no sense to refer to externally induced "conversion": The majority of children "convert" to cisgender or "desist" from transgender

regardless of any attempt to change them. "Conversion" only makes sense with regard to adult sexual orientation because (unlike childhood gender identity), adult homosexuality never or nearly never spontaneously changes to heterosexuality. Although gender identity and sexual orientation may often be analogous and discussed together with regard to social or political values and to civil rights, they are nonetheless distinct—with distinct origins, needs, and responses to medical and mental health care choices. Although AAP emphasized to the reader that "gender identity is not synonymous with 'sexual orientation'" (Rafferty et al., 2018, p. 3), they went ahead to treat them as such nonetheless.

To return to checking AAP's fidelity to its sources: Reference 29 was a practice guideline from the Committee on Quality Issues of the American Academy of Child and Adolescent Psychiatry (AACAP). Despite AAP applying this source to *gender identity,* AACAP was quite unambiguous regarding their intent to speak to sexual orientation and *only* to sexual orientation*:* "Principle 6. Clinicians should be aware that there is no evidence that *sexual orientation* can be altered through therapy, and that attempts to do so may be harmful. There is no established evidence that change in a predominant, enduring *homosexual* pattern of development is possible. Although sexual fantasies can, to some degree, be suppressed or repressed by those who are ashamed of or in conflict about them, sexual desire is not a choice. However, behavior, social role, and—to a degree—identity and self-acceptance are. Although operant conditioning modifies sexual fetishes, it does not alter *homosexuality*. Psychiatric efforts to alter *sexual orientation* through 'reparative therapy' *in adults* have found little or no change in *sexual orientation,* while causing significant risk of harm to self-esteem" (AACAP, 2012, p. 967, italics added).

Whereas AAP cites AACAP to support gender affirmation as the only alternative for treating GD children, AACAP's actual view was decidedly neutral, noting the lack of evidence: "Given the lack of empirical evidence from randomized, controlled trials of the efficacy of treatment aimed at eliminating gender discordance, the potential risks of treatment, and longitudinal evidence that gender discordance persists in only a small minority of untreated cases arising in childhood, further research is needed on predictors of persistence and desistence of childhood gender discordance as well as the long-term risks and benefits of intervention before any treatment to eliminate gender discordance can be endorsed" (AACAP, 2012, p. 969). Moreover, whereas AAP rejected watchful waiting, what AACAP recommended was: "In general, it is desirable to help adolescents who may be experiencing gender distress and dysphoria to defer sex reassignment until adulthood" (AACAP, 2012, p. 969). So, not only did AAP attribute to AACAP something AACAP never said, but also AAP withheld from readers AACAP's actual view.

Next, in reference 39, Byne (2016) also addressed only sexual orientation, doing so very clearly: "Reparative therapy is a subset of conversion therapies based on the premise that *same-sex attraction* are reparations for childhood trauma. Thus, practitioners of reparative therapy believe that exploring, isolating, and repairing these childhood emotional wounds will often result in reducing *same-sex attractions*" (Byne, 2016, p. 97). Byne does not say this of gender identity, as the AAP statement misrepresents.

In AAP reference 40, Cohen-Kettenis et al. (2008) did finally pertain to gender identity; however, this article never mentions conversion therapy. (!) Rather, in this study, the authors presented that clinic's lowering of their minimum age for cross-sex hormone treatment from age 18 to 16, which they did on the basis of a series of studies showing the high rates of success with this age group. Although it did strike me as odd that AAP picked as support against conversion therapy an article that did not mention conversion therapy, I could imagine AAP cited the article as an example of what the "mainstream of traditional medical practice" consists of (the logic being that conversion therapy falls outside what an 'ideal' clinic like this one provides). However, what this clinic provides is the very *watchful waiting* approach that AAP rejected. The approach

espoused by Cohen-Kettenis (and the other clinics mentioned in the source—Gent, Boston, Oslo, and now formerly, Toronto) is to make puberty-halting interventions available at age 12 because: "[P]ubertal suppression may give adolescents, together with the attending health professional, more time to explore their gender identity, without the distress of the developing secondary sex characteristics. The precision of the diagnosis may thus be improved" (Cohen-Kettenis et al., 2008, p. 1894).

Reference 41 presented a very interesting history spanning the 1960s–1990s about how feminine boys and tomboyish girls came to be recognized as mostly pre-homosexual, and how that status came to be entered into the DSM at the same time as homosexuality was being *removed* from the DSM. Conversion therapy is never mentioned. Indeed, to the extent that Bryant mentions treatment at all, it is to say that treatment is entirely irrelevant to his analysis: "An important omission from the *DSM* is a discussion of the kinds of treatment that GIDC children should receive. (This omission is a general orientation of the DSM and not unique to GIDC)" (Bryant, 2006, p. 35). How this article supports AAP's claim is a mystery. Moreover, how AAP could cite a 2006 history discussing events of the 1990s and earlier to support a claim about the *current* consensus in this quickly evolving discussion remains all the more unfathomable.

Cited last in this section was a one-paragraph press release from the World Professional Association for Transgender Health. Written during the early stages of the American Psychiatric Association's (APA's) update of the DSM, the statement asserted simply that "The WPATH Board of Directors strongly urges the de-psychopathologisation of gender variance worldwide." Very reasonable debate can (and should) be had regarding whether gender dysphoria should be removed from the DSM as homosexuality was, and WPATH was well within its purview to assert that it should. Now that the DSM revision process is years completed however, history has seen that APA ultimately retained the diagnostic categories, rejecting WPATH's urging. This makes AAP's logic entirely backwards: That WPATH's request to depathologize gender dysphoria was *rejected* suggests that it is *WPATH's* view—and therefore the AAP policy—which fall "outside the mainstream of traditional medical practice." (!)

AAP based this entire line of reasoning on their belief that conversion therapy is being used "to prevent children and adolescents from identifying as transgender" (Rafferty et al., 2018, p. 4). That claim is left without citation or support. In contrast, what is said by AAP's sources is "delaying affirmation should *not* be construed as conversion therapy or an attempt to change gender identity" in the first place (Byne, 2016, p. 2). Nonetheless, AAP seems to be doing exactly that: simply relabeling any alternative approach as equivalent to conversion therapy.

Although AAP (and anyone else) may reject (what they label to be) conversion therapy purely on the basis of political or personal values, there is no evidence to back the AAP's stated claim about the existing science on gender identity at all, never mind gender identity of children.

AAP also dismissed the watchful waiting approach out of hand, not citing any evidence, but repeatedly calling it "outdated." The criticisms AAP provided, however, again defied the existing evidence, with even its own sources repeatedly calling watchful waiting the current standard. According to AAP:

> [G]ender affirmation is in contrast to the outdated approach in which a child's gender-diverse assertions are held as "possibly true" until an arbitrary age (often after pubertal onset) when they can be considered valid, an approach that authors of the literature have termed "watchful waiting." This outdated approach does not serve the child because critical support is withheld. Watchful waiting is based on binary notions of gender in which gender diversity and fluidity is pathologized; in watchful waiting, it is also assumed that notions of gender identity become fixed at a certain age. The approach is also influenced by a group of early studies with validity concerns, methodologic flaws, and limited follow-up on children who identified as TGD and, by adolescence, did not seek further treatment ("desisters").[45,47]

The citations from AAP's reference list are:

45. Ehrensaft D, Giammattei SV, Storck K, Tishelman AC, Keo-Meier C. Prepubertal social gender transitions: what we know; what we can learn—a view from a gender affirmative lens. *Int J Transgend.* 2018;19(2):251–268

47. Olson KR. Prepubescent transgender children: what we do and do not know. *J Am Acad Child Adolesc Psychiatry.* 2016;55(3):155–156.e3

I was surprised first by the AAP's claim that watchful waiting's delay to puberty was somehow "arbitrary." The literature, including AAP's sources, repeatedly indicated the pivotal importance of puberty, noting that outcomes strongly diverge at that point. According to AAP reference 29, in "*prepubertal* boys with gender discordance—including many without any mental health treatment—the cross gender wishes usually fade over time and do not persist into adulthood, with only 2.2% to 11.9% continuing to experience gender discordance" (Adelson & AACAP, 2012, p. 963, italics added), whereas "when gender variance with the desire to be the other sex is present *in adolescence,* this desire usually does persist through adulthood" (Adelson & AACAP, 2012, p. 964, italics added). Similarly, according to AAP reference 40, "Symptoms of GID *at prepubertal ages* decrease or even disappear in a considerable percentage of children (estimates range from 80–95%). Therefore, any intervention in childhood would seem premature and inappropriate. However, GID persisting *into early puberty* appears to be highly persistent" (Cohen-Kettenis et al., 2008, p. 1895, italics added). That follow-up studies of prepubertal transition differ from postpubertal transition is the very meaning of non-arbitrary. AAP gave readers exactly the reverse of what was contained in its own sources. If AAP were correct in saying that puberty is an arbitrarily selected age, then AAP will be able to offer another point to wait for with as much empirical backing as puberty has.

Next, it was not clear on what basis AAP could say that watchful waiting withholds support—AAP cited no support for its claim. The people in such programs often receive substantial support during this period. Also unclear is on what basis AAP could already know exactly which treatments are "critical" and which are not—Answering that question is the very purpose of this entire endeavor. Indeed, the logic of AAP's claim appears entirely circular: It is only if one were already pre-convinced that gender affirmation is the only acceptable alternative that would make watchful waiting seem to withhold critical support—What it delays is gender affirmation, the method one has already decided to be critical.

Although AAP's next claim did not have a citation appearing at the end of its sentence, binary notions of gender were mentioned both in references 45 and 47. Specifically, both pointed out that existing outcome studies have been about people transitioning from one sex to the other, rather than from one sex to an in-between status or a combination of masculine/feminine features. Neither reference presented this as a reason to reject the results from the existing studies of complete transition however (which is how AAP cast it). Although it is indeed true that the outcome data have been about complete transition, some future study showing that partial transition shows a different outcome would not invalidate what is known about complete transition. Indeed, data showing that partial transition gives better outcomes than complete transition would, once again, support the watchful waiting approach which AAP rejected.

Next was a vague reference alleging concerns and criticisms about early studies. Had AAP indicated what those alleged concerns and flaws were (or which studies they were), then it would be possible to evaluate or address them. Nonetheless, the argument is a red herring: Because all of the later studies showed the same result as did the early studies, any such allegation is necessarily moot.

Reference 47 was a one-and-a-half page commentary in which the author off-handedly mentions criticisms previously made of three of the eleven outcome studies of GD children, but does not provide any analysis or discussion. The only specific claim was that studies (whether early or late) had limited follow-up periods—the logic being that had outcome researchers lengthened the follow-up period, then people who seemed to have desisted might have returned to the clinic as

cases of "persistence-after-interruption." Although one could debate the merits of that prediction, AAP instead simply withheld from the reader the result from the original researchers having tested that very prediction directly: Steensma and Cohen-Kettenis (2015) conducted another analysis of their cohort, by then ages 19–28 (mean age 25.9 years), and found that 3.3% (5 people of the sample of 150) later returned. That is, in long-term follow-up, the childhood sample showed 66.7% desistence instead of 70.0% desistance.

Reference 45 did not support the claim that watchful-waiting is "outdated" either. Indeed, that source said the very opposite, explicitly referring to watchful waiting as the *current* approach: "Put another way, if clinicians are straying from SOC 7 guidelines for social transitions, not abiding by the watchful waiting model *favored by the standards,* we will have adolescents who have been consistently living in their affirmed gender since age 3, 4, or 5" (Ehrensaft et al., 2018, p. 255). Moreover, Ehrensaft et al. said there are cases in which they too would still use watchful waiting: "When a child's gender identity is unclear, the watchful waiting approach can give the child and their family time to develop a clearer understanding and is not necessarily in contrast to the needs of the child" (p. 259). Ehrensaft et al. are indeed critical of the watchful waiting model (which they feel is applied too conservatively), but they do not come close to the position the AAP policy espouses. Where Ehrensaft summaries the potential benefits and potential risks both to transitioning and not transitioning, the AAP presents an ironically binary narrative.

In its policy statement, AAP told neither the truth nor the whole truth, committing sins both of commission and of omission, asserting claims easily falsified by anyone caring to do any fact-checking at all. AAP claimed, "This policy statement is focused specifically on children and youth that identify as TGD rather than the larger LGBTQ population"; however, much of that evidence was about sexual orientation, not gender identity. AAP claimed, "Current available research and expert opinion from clinical and research leaders … will serve as the basis for recommendations" (pp. 1–2); however, they provided recommendations entirely unsupported and even in direct opposition to that research and opinion.

AAP is advocating for something far in excess of mainstream practice and medical consensus. In the presence of compelling evidence, that is just what is called for. The problems with Rafferty, however, do not constitute merely a misquote, a misinterpretation of an ambiguous statement, or a missing reference or two. Rather, AAP's statement is a systematic exclusion and misrepresentation of entire literatures. Not only did AAP fail to provide compelling evidence, it failed to provide the evidence at all. Indeed, AAP's recommendations are *despite* the existing evidence.

Disclosure statement

No potential conflict of interest was reported by the author.

References

Rafferty, J., AAP Committee on Psychosocial Aspects of Child and Family Health, AAP Committee on Adolescence, AAP Section on Lesbian, Gay, Bisexual, and Transgender Health and Wellness. (2018). Ensuring comprehensive care and support for transgender and gender-diverse children and adolescents. *Pediatrics*, *142*(4), e20182162 doi:10.1542/peds.2018-2162

Steensma, T. D., & Cohen-Kettenis, P. T. (2015). More than two developmental pathways in children with gender dysphoria? *Journal of the American Academy of Child and Adolescent Psychiatry*, *52*, 147–148. doi:10.1016/j.jaac.2014.10.016

Wallien, M. S. C., & Cohen-Kettenis, P. T. (2008). Psychosexual outcome of gender-dysphoric children. *Journal of the American Academy of Child and Adolescent Psychiatry*, *47*, 1413–1423. doi:10.1097/CHI.0b013e31818956b9

Appendix

Count	Group	Study
2/16 4/16 10/16	gay* trans-/crossdress straight*/uncertain	Lebovitz, P. S. (1972). Feminine behavior in boys: Aspects of its outcome. *American Journal of Psychiatry, 128,* 1283–1289.
2/16 2/16 12/16	trans- uncertain gay	Zuger, B. (1978). Effeminate behavior present in boys from childhood: Ten additional years of follow-up. *Comprehensive Psychiatry, 19,* 363–369.
0/9 9/9	trans- gay	Money, J., & Russo, A. J. (1979). Homosexual outcome of discordant gender identity/role: Longitudinal follow-up. *Journal of Pediatric Psychology, 4,* 29–41.
2/45 10/45 33/45	trans-/crossdress uncertain gay	Zuger, B. (1984). Early effeminate behavior in boys: Outcome and significance for homosexuality. *Journal of Nervous and Mental Disease, 172,* 90–97.
1/10 2/10 3/10 4/10	trans- gay uncertain straight	Davenport, C. W. (1986). A follow-up study of 10 feminine boys. *Archives of Sexual Behavior, 15,* 511–517.
1/44 43/44	trans- cis-	Green, R. (1987). *The "sissy boy syndrome" and the development of homosexuality*. New Haven, CT: Yale University Press.
0/8 8/8	trans- cis-	Kosky, R. J. (1987). Gender-disordered children: Does inpatient treatment help? *Medical Journal of Australia, 146,* 565–569.
21/54 33/54	trans- cis-	Wallien, M. S. C., & Cohen-Kettenis, P. T. (2008). Psychosexual outcome of gender-dysphoric children. *Journal of the American Academy of Child and Adolescent Psychiatry, 47,* 1413–1423.
3/25 6/25 16/25	trans- lesbian/bi- straight	Drummond, K. D., Bradley, S. J., Badali-Peterson, M., & Zucker, K. J. (2008). A follow-up study of girls with gender identity disorder. *Developmental Psychology, 44,* 34–45.
17/139 122/139	trans- cis-	Singh, D. (2012). *A follow-up study of boys with gender identity disorder*. Unpublished doctoral dissertation, University of Toronto.
47/127 80/127	trans- cis-	Steensma, T. D., McGuire, J. K., Kreukels, B. P. C., Beekman, A. J., & Cohen-Kettenis, P. T. (2013). Factors associated with desistence and persistence of childhood gender dysphoria: A quantitative follow-up study. *Journal of the American Academy of Child and Adolescent Psychiatry, 52,* 582–590.

*For brevity, the list uses "gay" for "gay and cis-", "straight" for "straight and cis-", etc.

IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF WEST VIRGINIA
CHARLESTON DIVISION

B.P.J., by her next friend and mother, HEATHER JACKSON,

Plaintiff,

vs.

WEST VIRGINIA STATE BOARD OF EDUCATION, et al.,

Defendants,

and

LAINEY ARMISTEAD,

Defendant-Intervenor.

Case No. 2:21-cv-00316

Hon. Joseph R. Goodwin

DECLARATION OF STEPHEN B. LEVINE, MD

I, Dr. Stephen B. Levine, pursuant to 28 U.S. Code § 1746, declare under penalty of perjury under the laws of the United States of America that the facts contained in my Expert Report of Stephen B. Levine, MD., in the Case of B.P.J. v. West Virginia State Board of Education, dated February 23, 2022 and attached hereto, are true and correct to the best of my knowledge and belief, and that the opinions expressed therein represent my own expert opinions.

Executed on February 23, 2022.

Stephen B. Levine, MD

Expert Report of

Stephen B. Levine, MD

In the case of B.P.J. vs. West Virginia State Board of Education.

February 23, 2022

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I. CREDENTIALS & SUMMARY

1. I am Clinical Professor of Psychiatry at Case Western Reserve University School of Medicine, and maintain an active private clinical practice. I received my MD from Case Western Reserve University in 1967, and completed a psychiatric residency at the University Hospitals of Cleveland in 1973. I became an Assistant Professor of Psychiatry at Case Western in 1973, became a Full Professor in 1985, and in 2021 was honored to be inducted into the Department of Psychiatry's "Hall of Fame."

2. Since July 1973, my specialties have included psychological problems and conditions relating to individuals' sexuality and sexual relations, therapies for sexual problems, and the relationship between love, intimate relationships, and wider mental health. In 2005, I received the Masters and Johnson Lifetime Achievement Award from the Society of Sex Therapy and Research. I am a Distinguished Life Fellow of the American Psychiatric Association.

3. I have served as a book and manuscript reviewer for numerous professional publications. I have been the Senior Editor of the first (2003), second (2010), and third (2016) editions of the *Handbook of Clinical Sexuality for Mental Health Professionals*. In addition to five previously solo-authored books for professionals, I have recently published *Psychotherapeutic Approaches to Sexual Problems* (2020). The book has a chapter titled "The Gender Revolution."

4. In total I have authored or co-authored over 180 journal articles and book chapters, 20 of which deal with the issue of gender dysphoria. I am an invited member of a Cochrane Collaboration subcommittee that is currently preparing a review of the scientific literature on the effectiveness of puberty blocking hormones and of cross-sex hormones for

gender dysphoria for adolescents. Cochrane Reviews are a well-respected cornerstone of evidence-based practice, comprising a systematic review that aims to identify, appraise, and synthesize all the empirical evidence that meets pre-specified eligibility criteria in response to a particular research question.

5. I first encountered a patient suffering what we would now call gender dysphoria in July 1973. In 1974, I founded the Case Western Reserve University Gender Identity Clinic, and have served as Co-Director of that clinic since that time. Across the years, our Clinic treated hundreds of patients who were experiencing a transgender identity. An occasional child was seen during this era. I was the primary psychiatric caregiver for several dozen of our patients and supervisor of the work of other therapists. I was an early member of the Harry Benjamin International Gender Dysphoria Association (later known as WPATH) and served as the Chairman of the committee that developed the 5th version of its Standards of Care. In 1993 the Gender Identity Clinic was renamed, moved to a new location, and became independent of Case Western Reserve University. I continue to serve as Co-Director.

6. In the course of my five decades of practice treating patients who suffered from gender dysphoria, I have at one time or another recommended or prescribed or supported social transition, cross-sex hormones, and surgery for particular patients, but only after extensive diagnostic and psychotherapeutic work.

7. In 2006, Judge Mark Wolf of the Eastern District of Massachusetts asked me to serve as an independent, court-appointed expert in a litigation involving the treatment of a transgender inmate within the Massachusetts prison system. In that litigation, the U.S. Court of Appeals for the First Circuit in a 2014 (En Banc) opinion cited and relied on my expert

testimony. I have been retained by the Massachusetts Department of Corrections as a consultant on the treatment of transgender inmates since 2007.

8. In 2019, I was qualified as an expert and testified concerning the diagnosis, understanding, developmental paths and outcomes, and therapeutic treatment of transgenderism and gender dysphoria, particularly as it relates to children, in the matter of *In the Interest of J.A.D.Y. and J.U.D.Y.*, Case No. DF-15-09887-S, 255th Judicial District, Dallas County, TX (the "*Younger* litigation"). I have provided expert testimony in other litigation as listed in my curriculum vitae. In 2019, I provided written expert testimony in the landmark case in the United Kingdom; *Bell v. The Tavistock and Portman NHS Foundation Trust*.

9. I am regularly requested to speak on the topic of gender dysphoria and have given countless presentations to academic conferences and Departments of Psychiatry around the country. In May of this year, I will be co-presenting a symposium on the management of adolescent-onset transgender identity at American Psychiatric Association's Annual Meeting.

10. A fuller review of my professional experience, publications, and awards is provided in my curriculum vitae, a copy of which is attached hereto as Exhibit A.

11. I am being compensated for my time spent in connection with this case at a rate of $400.00 per hour for consultation and $500.00 per hour for time spent testifying.

12. I have reviewed the "Declaration and Expert Report of Deanna Adkins, MD," dated January 21, 2022 ("Adkins"). In that declaration Dr. Adkins makes a variety of statements about gender dysphoria, therapies for gender dysphoria, and outcomes of therapies, which I believe to be inaccurate, or unsupported by scientific evidence. Dr. Adkins is a pediatric endocrinologist. I note with some concern that Dr. Adkins makes a number of sweeping and

purportedly scientific assertions but cites almost no peer-reviewed articles or studies that support her opinions.

13. Based on her declaration, Dr. Adkins' practice is focused on children and adolescents; her CV and declaration do not suggest substantial experience in working with adults or older young adults who are living in a transgender identity, or who suffer from gender dysphoria. (This diagnosis requires "clinically significant" distress.) The wider lifecycle view that derives from experience with these adults (and familiarity with the literature concerning them) provides an important cautionary perspective. The psychiatrist or psychologist treating a trans child or adolescent, of course seeks to make the young patient happy, but the overriding consideration is the creation of a happy, highly functional, mentally healthy person for the next 50 to 70 years of life. I refer to treatment that keeps this goal in view as the "life course" perspective.

14. Dr. Adkins' stated belief that the only way to avoid harm is affirmative care is just one of many questionable assumptions that lack firm scientific foundation. Others that frequently ride along with advocates' convictions about affirmative care include:

a. A trans identity is immutable;

b. Trans identities are primarily caused by biological forces;

c. Gender identity and orientation are distinct stable dimensions of identity;

d. There are no alternative treatments to affirmative care;

e. Affirmative care lastingly improves mental health and social function;

f. Affirmative care reduces the rates of suicidal ideation and suicide;

g. Young teens can give informed consent for hormones because they know best what will make them happy now and in the future;

h. De-transition of affirmed youth is rare;

i. Associated psychopathology during and after affirmative care is primarily due to minority stress.

15. These assertions are inaccurate or unsupported, for reasons that I explain in this Declaration. I will provide citations to published, peer-reviewed articles that inform my judgments.

16. I have also reviewed the "Expert Report and Declaration of Joshua D. Safer, MD," dated January 21, 2022 ("Safer"). In that declaration Dr. Safer similarly makes a variety of statements about gender dysphoria, therapies for gender dysphoria, and outcomes of therapies, which I believe to be inaccurate, or unsupported by scientific evidence. Dr. Safer also makes a number of sweeping and purportedly scientific assertions that are not substantiated by peer-reviewed articles or studies.

17. It is also my opinion that a number of Dr. Safer's assertions are inaccurate or unsupported, for reasons that I explain in this Declaration. Similarly, I will provide citations to published, peer-reviewed articles that inform my judgments.

18. A summary of the key points that I explain in this report is as follows:

a. Sex as defined by biology and reproductive function is clear, binary, and cannot be changed. While hormonal and surgical procedures may enable some individuals to "pass" as the opposite gender during some or all of their lives, such procedures carry with them physical, psychological, and social risks, and no procedures can enable an individual to perform the reproductive role of the opposite sex. (Section II.A.)

b. The diagnosis of "gender dysphoria" encompasses a diverse array of conditions, with widely differing pathways and characteristics depending on age of onset, biological sex, mental health, intelligence, motivations for gender transition, socioeconomic status, country of origin, etc. Data from one population (e.g., adults) cannot be assumed to be applicable to others (e.g., children). (Section II.B.)

c. Among practitioners in the field, there are currently widely varying views concerning both the causes of and appropriate therapeutic response to gender dysphoria in children or adolescents. There are no generally accepted "standards of care" and existing studies do not provide a basis for a scientific conclusion as to which therapeutic response results in the best long-term outcomes for affected individuals. (Section III.)

d. Transgender identity is not biologically based. Rather, gender dysphoria is a psychiatric condition that cannot be identified by any biological test or measurement. (Sections IV.A, IV.B.)

e. Disorders of sexual development ("DSDs") are biological phenomena. It is an error to conflate and/or scientifically link DSDs with incidents of gender dysphoria. (Sections IV.C, IV.D.)

f. The large majority of children who are diagnosed with gender dysphoria "desist"—that is, their gender dysphoria does not persist—by puberty or adulthood. Desistance is also increasingly observed among teens and young adults who have experienced "rapid onset gender dysphoria" — first manifesting gender dysphoria during or shortly after adolescence. (Section V.A., V.B.)

g. "Social transition" —the active affirmation of transgender identity—in young children is a powerful psychotherapeutic intervention that will substantially reduce the

number of children "desisting" from transgender identity. Therefore, the profound implications of "affirmative" treatment—which include taking puberty blockers and cross-sex hormones—must be taken into account where social transition is being considered. (Section VI.A,, VI.B.)

h. Administration of puberty blockers is not a benign "pause" of puberty, but rather a powerful medical and psychotherapeutic intervention that almost invariably leads to persistence in a transgender identity and, ultimately, to the administration of cross-sex hormones. (Section VI.C.)

i. The knowledge base concerning the "affirmative" treatment of gender dysphoria available today has very low scientific quality with many long-term implications remaining unknown. (Section VII.A)

j. There are no studies that show that affirmation of transgender identity in young children reduces suicide or suicidal ideation, or improves long-term outcomes, as compared to other therapeutic approaches. Meanwhile, multiple studies show that adult individuals living transgender lives suffer much higher rates of suicidal ideation, completed suicide, and negative physical and mental health conditions than does the general population. This is true before and after transition, hormones, and surgery. (Section VII.B., VII.C.)

k. In light of what is known and not known about the impact of affirmation on the incidence of suicide, suicidal ideation, and other indicators of mental and physical health, it is scientifically baseless, and therefore unethical, to assert that a child or adolescent who express an interest in a transgender identity will kill him- or herself unless adults and peers affirm that child in a transgender identity. (Section VIII.)

l. Hormonal interventions to treat gender dysphoria are experimental in nature and have not been shown to be safe, but rather put an individual at risk of a wide range of long-term and even life-long harms including: physical health risks; sterilization and the associated emotional response; impaired sexual response; surgical complications and life-long after-care; alienation of family and romantic relationships; elevated mental health risks of depression, anxiety, and substance abuse. (Section IX.)

II. BACKGROUND ON THE FIELD

A. The biological baseline of the binary sexes

19. Dr. Adkins asserts that "the terms biological sex and biological male or female are imprecise and should be avoided." (Adkins at 10.) Dr. Safer further asserts that the term biological sex "can cause confusion," and moreover that a person's sex encompasses gender identity. (Safer at 6.) These statements are untrue. Biological sex is very well defined in all biological sciences including medicine. It is pervasively important in human development throughout the lifecycle.

20. Sex is not "assigned at birth" by humans visualizing the genitals of a newborn; it is not imprecise. Rather, it is clear, binary, and determined at conception. The sex of a human individual at its core structures the individual's biological reproductive capabilities—to produce ova and bear children as a mother, or to produce semen and beget children as a father. As physicians know, sex determination occurs at the instant of conception, depending on whether a sperm's X or Y chromosome fertilizes the egg. A publication of the federal government's National Institute of Health accurately summarizes the scientific facts:

> "Sex is a biological classification, encoded in our DNA. Males have XY chromosomes, and females have XX chromosomes. Sex makes us male or female. Every cell in your body has a sex—making up tissues and organs, like your skin, brain, heart, and

> stomach. Each cell is either male or female depending on whether you are a man or a woman." (NIH 2022.)

21. The binary of biological sex is so fundamental and wide-ranging in its effects on human (and mammal) development and physiology that since 2014 the NIH has required all funded research on humans or vertebrate animals to include "sex as a biological variable" and give "adequate consideration of both sexes in experiments." (NIH 2015). In 2021, the Endocrine Society issued a position paper elaborating on the application of the NIH requirement. The Endocrine Society correctly stated that "Sex is a biological concept . . . all mammals have 2 distinct sexes;" that "biological sex is . . . a fundamental source of intraspecific variation in anatomy and physiology;" and that "In mammals, numerous sexual traits (gonads, genitalia, etc.) that typically differ in males and females are tightly linked to each other because one characteristic leads to sex differences in other traits." (Bhargava et al. 2021 at 221, 229.)

22. The Endocrine Society emphasized that "The terms sex and gender should not be used interchangeably," and noted that even in the case of those "rare" individuals who suffer from some defect such that they "possess a combination of male- and female-typical characteristics, those clusters of traits are sufficient to classify most individuals as either biologically male or female." They concluded, "Sex is an essential part of vertebrate biology, but gender is a human phenomenon. Sex often influences gender, but gender cannot influence sex." (Bhargava et al. 2021 at 220-221, 228.) For purposes of this litigation, Dr. Bhargava's statement that gender cannot influence sex is of central importance.

23. As these statements and the NIH requirement suggest, biological sex pervasively influences human anatomy, its development and physiology. This includes, of course, the development of the human brain, in which many sexually dimorphic characteristics have now been identified. In particular, the Endocrine Society and countless other researchers have

determined that human brains undergo particular sex-specific developmental stages during puberty. This predictable developmental process is a genetically controlled coordinated endocrine response that begins with pituitary influences leading to increases in circulating sex hormones. (Bhargava et al. 2021 at 225, 229; Blakemore et al. 2010 at 926-927, 929; NIH 2001.).

24. Humans have viewed themselves in terms of binary sexes since the earliest historical records. Recognizing a concept of "gender identity" as something distinct from sex is a rather recent innovation whose earliest manifestations likely began in the late 1940s. Its usage became common in medicine in the 1980s and subsequently in the larger culture. Definitions of gender have been evolving and remain individual-centric and subjective. In a statement on "Gender and Health," the World Health Organization defines "gender" as "the characteristics of women, men, girls and boys that are socially constructed" and that "var[y] from society to society and can change over time," and "gender identity" as referring to "a person's deeply felt, internal and individual experience of gender." (WHO Gender and Health.) As these definitions indicate, a person's "felt" "experience of gender" is inextricably bound up with and affected by societal gender roles and stereotypes—or, more precisely, by the affected individual's *perception* of societal gender roles and stereotypes and their personal idiosyncratic meanings. Typically, gendered persons also have subtly different, often idiosyncratic, reactions to societal gender roles and stereotypes without preoccupation with changing their anatomy.

25. Thus, the self-perceived gender of a child begins to develop along with the early stages of identity formation generally, influenced in part from how others label the infant: "I love you, son (daughter)." This designation occurs thousands of times in the first two years of life when a child begins to show awareness of the two possibilities. As acceptance of the designated

gender corresponding to the child's sex is the outcome in >99% of children everywhere, anomalous gender identity formation begs for understanding. Is it biologically shaped? Is it biologically determined? Is it the product of how the child was privately regarded and treated? Is it a product of the quality of early life caregiver attachments? Does it stem from trauma-based rejection of maleness or femaleness, and if so, flowing from what trauma? Does it derive from a tense, chaotic interpersonal parental relationship without physical or sexual abuse? Is it a symptom of another, as of yet unrevealed, emotional disturbance or neuropsychiatric condition (autism)? The answers to these relevant questions are not scientifically known but are not likely to be the same for every trans-identified child, adolescent, or adult.

26. Under the influence of hormones secreted by the testes or ovaries, numerous additional sex-specific differences between male and female bodies continuously develop postnatally, culminating in the dramatic maturation of the primary and secondary sex characteristics with puberty. These include differences in hormone levels, height, weight, bone mass, shape, musculature, body fat levels and distribution, and hair patterns, as well as physiological differences such as menstruation and ejaculation. These are genetically programmed biological consequences of sex—the actual meaning of sex over time. Among the consequences of sex is the consolidation of gender identity during and after puberty.

27. Despite the increasing ability of hormones and various surgical procedures to reconfigure some male bodies to visually pass as female, or vice versa, the biology of the person remains as defined by his (XY) or her (XX) chromosomes, including cellular, anatomic, and physiologic characteristics and the particular disease vulnerabilities associated with that chromosomally defined sex. For instance, the XX (genetically female) individual who takes testosterone to stimulate certain male secondary sex characteristics will nevertheless remain

unable to produce sperm and father children. It is certainly true, as Dr. Adkins writes, that "[h]ormone therapy and social transition significantly change a person's physical appearance." (Adkins at 8.) But in critical respects this change can only be "skin deep." Contrary to assertions and hopes that medicine and society can fulfill the aspiration of the trans individual to become "a complete man" or "a complete woman," this is not biologically attainable. (Levine 2018 at 6; Levine 2016 at 238.) It is possible for some adolescents and adults to pass unnoticed—that is, to be perceived by most individuals as a member of the gender that they aspire to be—but with limitations, costs, and risks, as I detail later.

B. Definition and diagnosis of gender dysphoria

28. Specialists have used a variety of terms over time, with somewhat shifting definitions, to identify and speak about a distressing incongruence between an individual's genetically determined sex and the gender with which they identify or to which they aspire. Today's American Psychiatric Association *Diagnostic and Statistical Manual of Mental Disorders* ("DSM-5") employs the term Gender Dysphoria and defines it with separate sets of criteria for adolescents and adults on the one hand, and children on the other.

29. There are at least five distinct pathways to gender dysphoria: early childhood onset; onset near or after puberty with no prior cross gender patterns; onset after defining oneself as gay for several or more years and participating in a homosexual lifestyle; adult onset after years of heterosexual transvestism; and onset in later adulthood with few or no prior indications of cross-gender tendencies or identity. (Levine 2021.) The early childhood onset pathway and the more recently observed onset around puberty pathway are most relevant to this matter.

30. Gender dysphoria has very different characteristics depending on age and sex at onset. Young children who are living a transgender identity commonly suffer materially fewer symptoms of concurrent mental distress than do older patients. (Zucker 2018 at 10.) The

developmental and mental health patterns for each of these groups are sufficiently different that data developed in connection with one of these populations cannot be assumed to be applicable to another.

31. The criteria used in DSM-5 to identify Gender Dysphoria include a number of signs of discomfort with one's natal sex and vary somewhat depending on the age of the patient, but in all cases require "clinically significant distress or impairment in . . . important areas of functioning" such as social, school, or occupational settings. The symptoms must persist for at least six months.

32. Children who conclude that they are transgender are often unaware of a vast array of adaptive possibilities for how to live life as a man or a woman—possibilities that become increasingly apparent over time to both males and females. A boy or a girl who claims or expresses interest in pursuing a transgender identity often does so based on stereotypical notions of femaleness and maleness that reflect constrictive notions of what men and women can be. (Levine 2017 at 7.) A young child's—or even an adolescent's—understanding of this topic is quite limited. Nor can they grasp what it may mean for their future to be sterile. These children and adolescents consider themselves to be relatively unique; they do not realize that discomfort with the body and perceived social role is neither rare nor new to civilization. What is new is that such discomfort is thought to indicate that they must be a trans person.

C. Impact of gender dysphoria on minority and vulnerable groups

33. Given that, as I discuss later, a diagnosis of gender dysphoria is now frequently putting even young children on a pathway that leads to irreversible physical changes and sterilization by young adulthood, it should be of serious concern to all practitioners that minority and vulnerable groups are receiving this diagnosis at disproportionately high rates. These include: children of color (Rider et al. 2018), children with mental developmental disabilities

(Reisner et al. 2015), children on the autistic spectrum (at a rate more than 7x the general population) (Shumer et al. 2016; van der Miesen et al. 2018), children with ADHD (Becerra-Culqui et al. 2018), children residing in foster care homes, adopted children (at a rate more than 3x the general population) (Shumer et al. 2017), victims of childhood sexual or physical abuse or other "adverse childhood events" (Thoma 2021 et al.; Newcomb et al. 2020; Kozlowska et al. 2021), children with a prior history of psychiatric illness (Edwards-Leeper et al. 2017; Kaltiala-Heino et al. 2015; Littman 2018), and more recently adolescent girls (in a large recent study, at a rate more than 2x that of boys) (Rider et al. 2018 at 4).

D. Three competing conceptual models of gender dysphoria and transgender identity

34. Discussions about appropriate responses by mental health professionals ("MHPs") to actual or sub-threshold gender dysphoria are complicated by the fact that various speakers and advocates (or a single speaker at different times) view transgenderism through at least three very different paradigms, often without being aware of, or at least without acknowledging, the distinctions.

35. Gender dysphoria is **conceptualized and described by some professionals and laypersons as though it were a serious, physical medical illness that causes suffering**, comparable to diseases that are curable before it spreads, such as melanoma or sepsis. Within this paradigm, whatever is causing distress associated with gender dysphoria—whether secondary sex characteristics such as facial hair, nose and jaw shape, presence or absence of breasts, or the primary anatomical sex organs of testes, ovaries, penis, or vagina—should be removed to alleviate the illness. The promise of these interventions is the cure of the gender dysphoria.

36. Dr. Adkins appears to endorse this perspective, asserting that gender dysphoria is a "medical condition." (Adkins at 4.) It should be noted, however, that gender dysphoria is a psychiatric, not a medical, diagnosis. Since its inception in DSM-III in 1983, it has always been specified in the psychiatric DSM manuals and has not been specified in medical diagnostic manuals. Notably, gender dysphoria is the only psychiatric condition to be treated by surgery, even though no endocrine or surgical intervention package corrects any identified biological abnormality. (Levine 2016 at 240.)

37. Gender dysphoria is alternatively **conceptualized in developmental terms**, as an adaptation to a psychological problem that may have been first manifested as a failure to establish a comfortable conventional sense of self in early childhood. This paradigm starts from the premise that all human lives are influenced by past processes and events. Trans lives are not exceptions to this axiom. (Levine 2016 at 238.) MHPs who think of gender dysphoria through this paradigm may work both to identify and address causes of the basic problem of the deeply uncomfortable self or a sense of self impaired by later adversity or abuse. The purpose is to ameliorate suffering when the underlying problem cannot be solved. MHPs first work with the patient and (ideally) family to learn about the events and processes that may have led to the trans person repudiating the gender associated with his sex. The developmental paradigm is mindful of temperamental, parental bonding, psychological, sexual, and physical trauma influences, and the fact that young children work out their psychological issues through fantasy and play and adolescents work out their issues by adopting various interests and identity labels.

38. There is evidence among adolescents that peer social influences through "friend groups" (Littman 2018) or through the internet can increase the incidence of gender dysphoria or claims of transgender identity. Responsible MHPs will want to probe these potential influences

to better understand what is truly deeply tied to the psychology of the patient, and what may instead be being "tried on" by the youth as part of the adolescent process of self-exploration and self-definition.

39. In addition, the developmental paradigm recognizes that, with the important exception of genetic sex, essentially all aspects of an individual's identity evolve—often markedly—across the individual's lifetime. This includes gender. Some advocates assert that a transgender identity is biologically caused, fixed from early life, and eternally present in an unchanging manner. As I review later, however, this assertion is not supported by science.[1]

40. The third paradigm through which gender dysphoria is alternatively conceptualized is from **a sexual minority rights perspective**. Under this paradigm, any response other than medical and societal affirmation and implementation of a patient's claim to "be" the opposite gender is a violation of the individual's civil right to self-expression. Any effort to ask "why" questions about the patient's condition, or to address underlying causes, is viewed as a violation of autonomy and civil rights. In the last few years, this paradigm has been successful in influencing public policy and the education of pediatricians, endocrinologists, and many mental health professionals. Obviously, however, this is not a medical or psychiatric perspective. Unfortunately, it appears to be the most powerful perspective that exists in the public, non-scientific debate.

E. Four competing models of therapy

41. Few would disagree that the human psyche is complex. Few would disagree that children's and adolescents' developmental pathways typically have surprising twists and turns. The complexity and unpredictability of childhood and adolescent development equally applies to

[1] Even the advocacy organization The Human Rights Campaign asserts that a person can have "a fluid or unfixed gender identity." https://www.hrc.org/resources/glossary-of-terms.

trans-identifying youth. Because of past difficulties of running placebo-controlled clinical trials in the transgender treatment arena, substantial disagreements among professionals about the causes of trans identities and their ideal treatments exist. These current disagreements might have been minimized if trans treated persons were carefully followed up to determine long term outcomes. They have not been. When we add to this to the very different current paradigms for understanding transgender phenomena, it is not scientifically surprising that disagreements are sharply drawn. It is with this in mind that I summarize below the leading approaches, and offer certain observations and opinions concerning them.

(1) The "watchful waiting" therapy model

42. In Section V.A below I review the uniform finding of eleven follow-up studies that the large majority of children who present with gender dysphoria will desist from desiring a transgender identity by adulthood if left untreated by social transition approaches.

43. When a pre-adolescent child presents with gender dysphoria, a "watchful waiting" approach seeks to allow for the fluid nature of gender identity in children to naturally evolve—that is, take its course from forces within and surrounding the child. Watchful waiting has two versions:

a. Treating any other psychological co-morbidities—that is, other mental illnesses as defined by DSM-5 (separation anxiety disorder, attention deficit hyperactivity disorder, autism spectrum disorder, obsessive compulsive disorder, etc), or subthreshold for diagnosis but behavioral problems that the child may exhibit (school avoidance, bedwetting, inability to make friends, aggression/defiance) without a focus on gender (**model #1**); and

b. No treatment at all for anything but a regular follow-up appointment. This might be labeled a "hands off" approach **(model #2**).

(2) The psychotherapy model: Alleviate distress by identifying and addressing causes (model #3)

44. One of the foundational principles of psychotherapy has long been to work with a patient to identify the causes of observed psychological distress and then to address those causes as a means of alleviating the distress. The National Institute of Mental Health has promulgated the idea that 75% of adult psychopathology has its origins in childhood experience.

45. Many experienced practitioners in the field of gender dysphoria, including myself, have believed that it makes sense to employ these long-standing tools of psychotherapy for patients suffering gender dysphoria, asking the question as to what factors in the patient's life are the determinants of the patient's repudiation of his or her natal sex. (Levine 2017 at 8; Levine 2021.) I and others have reported success in alleviating distress in this way for at least some patients, whether the patient's sense of discomfort or incongruence with his or her natal sex entirely disappeared or not. Relieving accompanying psychological co-morbidities leaves the patient freer to consider the pros and cons of transition as he or she matures.

46. Among other things, the psychotherapist who is applying traditional methods of psychotherapy may help—for example—the male patient appreciate the wide range of masculine emotional and behavioral patterns as he grows older. He may discuss with his patient, for example, that one does not have to become a "woman" in order to be kind, compassionate, caring, noncompetitive, to love the arts, and to be devoted to others' feelings and needs. (Levine 2017 at 7.) Many biologically male trans individuals, from childhood to older ages, speak of their perceptions of femaleness as enabling them to discuss their feelings openly, whereas they perceive boys and men to be constrained from emotional expression within the family and larger culture, and to be aggressive. Men, of course, can be emotionally expressive, just as they can

wear pink. Converse examples can be given for girls and women. These types of ideas regularly arise during psychotherapies.

47. As I note above, many gender-nonconforming children and adolescents in recent years derive from minority and vulnerable groups who have reasons to feel isolated and have an uncomfortable sense of self. A trans identity may be a hopeful attempt to redefine the self in a manner that increases their comfort and decreases their anxiety. The clinician who uses traditional methods of psychotherapy may not focus on their gender identity, but instead work to help them to address the actual sources of their discomfort. Success in this effort may remove or reduce the desire for a redefined identity. This often involves a focus on disruptions in their attachment to parents in vulnerable children, for instance, those in the foster care system.

48. Because "watchful waiting" can include treatment of accompanying psychological co-morbidities, and the psychotherapist who hopes to relieve gender dysphoria may focus on potentially causal sources of psychological distress rather than on the gender dysphoria itself, there is no sharp line between "watchful waiting" and the psychotherapy model in the case of prepubescent children.

49. To my knowledge, there is no evidence beyond anecdotal reports that psychotherapy can enable a return to male identification for genetically male boys, adolescents, and men, or return to female identification for genetically female girls, adolescents, and women. On the other hand, anecdotal evidence of such outcomes does exist; I and other clinicians have witnessed reinvestment in the patient's biological sex in some individual patients who are undergoing psychotherapy. The Internet contains many such reports, and I have published a paper on a patient who sought my therapeutic assistance to reclaim his male gender identity after 30 years living as a woman and is in fact living as a man today. (Levine 2019.) I have seen

children desist even before puberty in response to thoughtful parental interactions and a few meetings of the child with a therapist. There are now a series of articles and at least one major book on the psychological treatment of adolescents. (D'Angelo et al. 2021 at 7-16; Evans & Evans 2021.)

(3) The affirmation therapy model (model #4)

50. While it is widely agreed that the therapist should not directly challenge a claimed transgender identity in a child, some advocates and practitioners go much further, and promote and recommend that any expression of transgender identity should be immediately accepted as decisive, and thoroughly affirmed by means of consistent use of clothing, toys, pronouns, etc., associated with transgender identity. They argue that the child should be comprehensively re-socialized in grade school in their aspired-to gender. As I understand it, this is asserted as a reason why male students who assert a female gender identity must be permitted to compete in girls' or women's athletic events. These advocates treat any question about the causes of the child's transgender identification as inappropriate. They may not recognize the child's ambivalence. They assume that observed psychological co-morbidities in the children or their families are unrelated or will get better with transition, and need not be addressed by the MHP who is providing supportive guidance concerning the child's gender identity.

51. Some advocates, indeed, assert that unquestioning affirmation of any claim of transgender identity in children is essential, and that the child will otherwise face a high risk of suicide or severe psychological damage. Dr. Adkins appears to follow this line, asserting that "My clinical experience . . . has been that [patients] suffer and experience worse health outcomes" when they are not permitted to enter all spaces and participate in all activities in a manner "consistent with gender identity." (Adkins at 9.) This claim is simply not supported by the clinical data we have available to us. Indeed, available long-term data contradicts Dr.

Adkins' claim. I address physical and mental health outcomes in Section VII below, and suicide in Section VIII below.

52. Dr. Adkins also asserts that fully supported social transition is the "only treatment for prepubertal children." (Adkins at 6.) As I review in the next section, this is not correct. This may be the only treatment that Dr. Adkins considers, but my own conversations and contacts lead me to believe that Dr. James Cantor was correct when he wrote that "almost all clinics and professional associations in the world" do not use "gender affirmation" for prepubescent children and instead "delay any transitions after the onset of puberty." (Cantor 2019 at 1.)

53. I do not know what proportion of practitioners are using which model. However, in my opinion, in the case of young children, prompt and thorough affirmation of a transgender identity disregards the principles of child development and family dynamics and is not supported by science. Instead of science, this approach is currently being reinforced by an echo-chamber of approval from other like-minded child-oriented professionals who do not sufficiently consider the known negative medical and psychiatric outcomes of trans adults. Rather than recommend social transition in grade school, the MHP must focus attention on the child's underlying internal and familial issues. Ongoing relationships between the MHP and the parents, and the MHP and the child, are vital to help the parents, child, other family members, and the MHP to understand over time the issues that need to be dealt with by each of them.

54. Likewise, since the child's sense of gender develops in interaction with his parents and their own gender roles and relationships, the responsible MHP will almost certainly need to delve into family and marital dynamics.

III. THERE IS NO CONSENSUS OR AGREED "STANDARD OF CARE" CONCERNING THERAPEUTIC APPROACHES TO CHILD OR ADOLESCENT GENDER DYSPHORIA.

55. Dr. Adkins states that "[t]he only treatment to avoid [ ] serious harm is to recognize the gender identity of patients with gender dysphoria and follow appropriate treatment protocols to affirm gender identity and alleviate distress," and appears to believe that transition and affirmation of children who suffer from gender dysphoria is a generally accepted "standard of care." (Adkins at 5.) It is not.

56. As I review in separate sections later, there is far too little firm clinical evidence in this field to permit any evidence-based standard of care. Given the lack of scientific evidence, it is neither surprising nor improper that—as I detailed in Section II—there is a diversity of views among practitioners as to as to the best therapeutic response for the child, adolescent, or young adult who suffers from gender dysphoria. Dr. Adkins is unwittingly confusing therapeutic precedent among those who agree with her views, armed with ideas promulgated by WPATH, with careful scientific documentation of her concepts. She presumes that her views have been scientifically established even though much has been published highlighting the lack of supportive definitive evidence.

57. Reviewing the state of opinion and practice in 2021, the Royal Australian and New Zealand College of Psychiatrists observed that "There are polarised views and mixed evidence regarding treatment options for people presenting with gender identity concerns, especially children and young people." (RANZCP, 2021.) Similarly, a few years earlier prominent Dutch researchers noted: "[T]here is currently no general consensus about the best approach to dealing with the (uncertain) future development of children with GD, and making decisions that may influence the function and/or development of the child — such as social

transition." (Ristori & Steensma 2016 at 18.)[2] In this Section, I comment on some of the more important areas of disagreement within the field.

A. Experts and organizations disagree as to whether "distress" is a necessary element for diagnoses that justifies treatment for gender identity issues.

58. As outlined in Section II.B above, "clinically significant distress" is one of the criteria used in DSM-5 to identify gender dysphoria. This indicates a heightened level of distress that rises beyond a threshold level of social awkwardness or discomfort with the changing body. It is known that many trans-identified youth with incongruence between their sexed bodies and their gender identity choose not to take hormones; their incongruence is quite tolerable as they further clarify their sexual identity elements. This population raises the questions of what distress is being measured when DSM-5 criteria are met and what else might be done about it.

59. I note that there is no "clinically significant distress" requirement in World Health Organization's International Classification of Diseases (ICD-11) criteria for gender incongruence, which rather indicates "a marked and persistent incongruence between an individual´s experienced gender and the assigned sex." (World Health Organization 2019.)

60. Therefore, even between these two committee-based authorities, there is a significant disagreement as to what constitutes a gender condition justifying life-changing interventions. To my knowledge, some American gender clinics and practitioners are essentially operating under the ICD-11 criteria rather than the APA's DSM-5 criteria, prescribing transition for children, hormonal interventions for slightly older children, and different hormones for adolescents who assert a desire for a transgender identity whether or not they are exhibiting "clinically significant distress." Others adhere to the DSM-5 diagnostic standard.

[2] *See also* Zucker 2020 which questions the merit of social transition as a first-line treatment.

61. I will add that even from within one "school of thought," such as embodied by Dr. Adkins, it is not responsible to make a single, categorical statement about the proper treatment of children or adolescents presenting with gender dysphoria or other gender-related issues. There is no single pathway to the development of a trans identity and no reasonably uniform short- or long-term outcome of medically treating it. As individuals grow physically, mature psychologically, and experience or fail to experience satisfying romantic relationships, their life course depends on their differing psychological, social, familial, and life experiences. There should be no trust in assertions that trans identified youth must be treated in a particular manner to avoid harm for two reasons: first, there is no systematic data on the nature of, and the rate of harms of either affirmative treatment, no treatment, or psychological only treatment. Second, as in other youthful psychiatric and other challenges, outcomes vary.

B. Opinions and practices vary widely about the utilization of social transition for children and adolescents.

62. Dr. Adkins notes that she is a member of the World Professional Association for Transgender Health (WPATH), invokes a guidance document that that organization has chosen to publish under the title of "standards of care," and asserts that the WPATH Standards of Care are "widely accepted." (Adkins at 3, 5.) Below, I will provide some explanation of WPATH and its "Standards of Care," which are not the product of a strictly scientific organization, and are by no means accepted by all or even most practitioners as setting out best practices.

63. Here, however, I will note that WPATH does not take a position concerning whether or when social transition may be appropriate for pre-pubertal children. Instead, the WPATH "Standards of Care" states that the question of social transition for children is a "controversial issue" and calls for mental health professionals to support families in what it describes as "difficult decisions" concerning social transition.

64. Dr. Erica Anderson is a prominent practitioner in this area who identifies as a transgender woman, who was the first transgender president of USPATH, and who is a former board member of WPATH. Dr. Anderson recently resigned from those organizations and has condemned automatic approval of transition upon the request of a child or adolescent, noting that "adolescents . . . are notoriously susceptible to peer influence," that transition "doesn't cure depression, doesn't cure anxiety disorders, doesn't cure autism-spectrum disorder, doesn't cure ADHD," and instead that "a comprehensive biopsychosocial evaluation" should proceed allowing a child to transition. (Davis 2022.) And as I have explained previously, my own view based on 50 years of experience in this area favors strong caution before approving life-altering interventions such as social transition, puberty blockers, or cross-sex hormones.

C. The WPATH "Standards of Care" is not an impartial or evidence-based document.

65. Because WPATH is frequently cited by advocates of social, hormonal, and surgical transition, I provide some context concerning that private organization and its "Standards of Care."

66. I was a member of the Harry Benjamin International Gender Dysphoria Association from 1974 until 2001. From 1997 through 1998, I served as the Chairman of the eight-person International Standards of Care Committee that issued the fifth version of the Standards of Care. I resigned my membership in 2002 due to my regretful conclusion that the organization and its recommendations had become dominated by politics and ideology, rather than by scientific process, as it was years earlier. In approximately 2007, the Harry Benjamin International Gender Dysphoria Association changed its name to the World Professional Association for Transgender Health.

67. WPATH is a voluntary membership organization. Since at least 2002, attendance at its biennial meetings has been open to trans individuals who are not licensed professionals. While this ensures taking patients' needs into consideration, it limits the ability for honest and scientific debate, and means that WPATH can no longer be considered a purely professional organization.

68. WPATH takes a decided view on issues as to which there is a wide range of opinion among professionals. WPATH explicitly views itself as not merely a scientific organization, but also as an advocacy organization. (Levine 2016 at 240.) WPATH is supportive to those who want sex reassignment surgery ("SRS"). Skepticism as to the benefits of SRS to patients, and strong alternate views, are not well tolerated in discussions within the organization or their educational outreach programs. Such views have been known to be shouted down and effectively silenced by the large numbers of nonprofessional adults who attend the organization's biennial meetings. Two groups of individuals that I regularly work with have attended recent and separate WPATH continuing education sessions. There, questions about alternative approaches were quickly dismissed with "There are none. This is how it is done." Such a response does not accurately reflect what is known, what is unknown, and the diversity of clinical approaches in this complex field.

69. The Standards of Care ("SOC") document is the product of an effort to be balanced, but it is not politically neutral. WPATH aspires to be both a scientific organization and an advocacy group for the transgendered. These aspirations sometimes conflict. The limitations of the Standards of Care, however, are not primarily political. They are caused by the lack of rigorous research in the field, which allows room for passionate convictions on how to care for the transgendered. And, of course, once individuals have socially, medically, and surgically

transitioned, WPATH members and the trans people themselves at the meetings are committed to supporting others in their transitions. Not only have some trans participants been distrustful or hostile to those who question the wisdom of these interventions, their presence makes it difficult for professionals to raise their concerns. Vocal trans rights advocates have a worrisome track record of attacking those who have alternative views. (Dreger 2015.)

70. In recent years, WPATH has fully adopted some mix of the medical and civil rights paradigms. It has downgraded the role of counseling or psychotherapy as a requirement for these life-changing processes. WPATH no longer considers preoperative psychotherapy to be a requirement. It is important to WPATH that the person has gender dysphoria; the pathway to the development of this state is not. (Levine 2016 at 240.) The trans person is assumed to have thoughtfully considered his or her options before seeking hormones, for instance.

71. Most psychiatrists and psychologists who treat patients suffering sufficiently severe distress from gender dysphoria to seek inpatient psychiatric care are not members of WPATH. Many psychiatrists, psychologists, and pediatricians who treat some patients suffering gender dysphoria on an outpatient basis are not members of WPATH. WPATH represents a self-selected subset of the profession along with its many non-professional members; it does not capture the clinical experiences of others. WPATH claims to speak for the medical profession; however, it does not welcome skepticism and therefore, deviates from the philosophical core of medical science. There are pediatricians, psychiatrists, endocrinologists, and surgeons who object strongly, on professional grounds, to transitioning children and providing affirmation in a transgender identity as the first treatment option. WPATH does not speak for all of the medical profession.

72. In 2010 the WPATH Board of Directors issued a statement advocating that incongruence between sex and felt gender identity should cease to be identified in the DSM as a pathology.[3] This position was debated but not adopted by the (much larger) American Psychiatric Association, which maintained the definitions and diagnoses of gender dysphoria as a pathology in the DSM-5 manual issued in 2013.

73. In my experience some current members of WPATH have little ongoing experience with the mentally ill, and many trans care facilities are staffed by MHPs who are not deeply experienced with recognizing and treating frequently associated psychiatric co-morbidities. Further, being a mental health professional, per se, does not guarantee experience and skill in recognizing and effectively intervening in serious or subtle patterns. Because the 7th version of the WPATH SOC deleted the requirement for therapy, trans care facilities that consider these Standards sufficient are permitting patients to be counseled to transition by means of social presentation, hormones, and surgery by individuals with masters rather than medical degrees.

D. Opinions and practices differ widely with respect to the proper role of psychological counseling before, as part of, or after a diagnosis of gender dysphoria.

74. In Version 7 of its Standards of Care, released in 2012, WPATH downgraded the role of counseling or psychotherapy, and the organization no longer sees psychotherapy without transition and hormonal interventions as a potential path to eliminate gender dysphoria by enabling a patient to return to or achieve comfort with the gender identity aligned with his or her biology.

[3] WPATH *De-Psychopathologisation Statement* (May 26, 2010), available at wpath.org/policies (last accessed January 21, 2020).

75. Around the world, many prominent voices and practitioners disagree. For example, renowned gender therapists Dr. Laura Edwards-Leeper and Dr. Erica Anderson (who, as mentioned above, identifies as a transgender woman) have recently spoken out arguing that children and adolescents are being subjected to puberty blockers and hormonal intervention far too quickly, when careful and extended psychotherapy and investigation for potential causes of feelings of dysphoria (such as prior sexual abuse) should be the first port of call and might resolve the dysphoria. (Edwards-Leeper & Anderson 2021; Davis 2022.)

76. In a recently published position statement on gender dysphoria, the Royal Australian and New Zealand College of Psychiatrists emphasized the critical nature of mental health treatment for gender dysphoric minors, stressing "the importance of the psychiatrist's role to undertake thorough assessment and evidence-based treatment ideally as part of a multidisciplinary team, especially highlighting co-existing issues which may need addressing and treating." The Royal College also emphasized the importance of assessing the "psychological state and context in which Gender Dysphoria has arisen," before any treatment decisions are made. (RANZCP, 2021.)

77. Dr. Paul Hruz of the University of Washington St. Louis Medical School has noted, "The WPATH has rejected psychological counseling as a viable means to address sex–gender discordance with the claim that this approach has been proven to be unsuccessful and is harmful (Coleman et al. 2012). Yet the evidence cited to support this assertion, mostly from case reports published over forty years ago, includes data showing patients who benefited from this approach (Cohen-Kettenis and Kuiper 1984)." (Hruz 2020.)

E. Opinions and practices vary widely with respect to the administration of puberty blockers and cross-sex hormones.

78. There is likewise no broadly accepted standard of care with respect to use of puberty blockers. The WPATH Standards of Care explicitly recognize the lack of any consensus on this important point, stating: "Among adolescents who are referred to gender identity clinics, the number considered eligible for early medical treatment—starting with GnRH analogues to suppress puberty in the first Tanner stages—differs among countries and centers. Not all clinics offer puberty suppression. . . The percentages of treated adolescents are likely influenced by the organization of health care, insurance aspects, cultural differences, opinions of health professionals, and diagnostic procedures offered in different settings."

79. The use of puberty blockers as a therapeutic intervention for gender dysphoria is often justified by reference to the seminal work of a respected Dutch research team that developed a protocol that administered puberty blockers to children no younger than age 14. However, it is well known that many clinics in North America now administer puberty blockers to children at much younger ages than the "Dutch Protocol" allows. (Zucker 2019.) The Dutch protocol only treated children with these characteristics: a stable cross gender identity from early childhood; dysphoria that worsened with the onset of puberty; were otherwise psychologically healthy; had healthy families; the patient and family agreed to individual and family counselling throughout the protocol. But the experience and results of the Dutch model is being used as a justification for giving puberty blockers to children who differ considerably from these criteria. Its authors have also recently noted this fact. (de Vries 2020.)

80. However, Zucker notes that "it is well known" that clinicians are administering cross-sex hormones, and approving surgery, at ages lower than the minimum age thresholds set by that "Dutch Protocol." (Zucker 2019 at 5.)

81. Similarly, at least one prominent clinic—that of Dr. Safer at Columbia's Mt. Sinai Medical Center—is quite openly admitting patients for even *surgical* transition who are not eligible under the criteria set out in WPATH's Standards of Care. A recent study published by Dr. Safer and colleagues revealed that of a sample of 139 individuals, 45% were eligible for surgery "immediately" under the center's own criteria, while only 15% were eligible under WPATH's criteria. That is, *three times* as many patients immediately qualified for surgery under the center's loose standards than would have qualified under WPATH criteria. (Lichenstein et al. 2020.)

82. Internationally, there has been a recent marked trend *against* use of puberty blockers, as a result of extensive evidence reviews by national medical bodies, which I discuss later. The main gender clinic in Sweden has declared that it will no longer authorize use of puberty blockers for minors below the age of 16. Finland has similarly reversed its course, issuing new guidelines that allow puberty blockers only on a case-by-case basis after an extensive psychiatric assessment. A landmark legal challenge against the UK's National Health Service in 2020 by "detransitioner" Keira Bell led to the suspension of the use of puberty blockers and new procedures to ensure better psychological care, as well as prompting a thorough evidence review by the National Institute for Health and Care Excellence (NICE 2021a; NICE 2021b).[4]

83. In this country, some voices in the field are now publicly arguing that *no* comprehensive mental health assessment at all should be required before putting teens on puberty blockers or cross-sex hormones (Ghorayshi 2022), while Dr. Anderson and Dr.

[4] The decision requiring court approval for administration of hormones to any person younger than age 16 was later reversed on procedural grounds by the Court of Appeal and is currently under consideration by the UK Supreme Court.

Edwards-Leeper argue that U.S. practitioners are already moving too quickly to hormonal interventions. (Edwards-Leeper & Anderson 2021; Davis 2022.) It is evident that opinions and practices are all over the map.

84. It is true that a committee of the American Academy of Pediatricians has issued a statement supporting administration of puberty blockers to children diagnosed with gender dysphoria. It is also true that no other American medical association has endorsed the use of puberty blockers, and that pediatricians are neither endocrinologists nor psychiatrists. Dr. James Cantor published a peer-reviewed paper detailing that the Academy's statement is not evidence-based and misdescribed the few scientific sources it did reference. (Cantor 2019.) It has been well noted in the field that the AAP has declined invitations to publish any rebuttal to Dr. Cantor's analysis. But this is all part of ongoing debate, simply highlighting the absence of any generally agreed standard of care.

85. Dr. Adkins asserts that the Society's 2017 Practice Guidelines on Endocrine Treatment of Gender-Dysphoric/Gender-Incongruent Persons (Hembree et al. 2017) amount to "widely accepted standards of care" that were "developed through rigorous scientific processes." (Adkins at 2, 5 and 6.)

86. Contrary to Dr. Adkins' assertion, the 2017 Endocrine Society Guidelines themselves expressly state that they are *not* "standards of care." The document states: "The guidelines cannot guarantee any specific outcome, *nor do they establish a standard of care*. The guidelines are not intended to dictate the treatment of a particular patient." (Hembree et al. 2017 at 3895 (emphasis added).) Nor do the Guidelines claim to be the result of a "rigorous scientific process." Rather, they expressly advise that their recommendations concerning use of puberty blockers are based only on "low quality" evidence.

87. Dr. Adkins notes that the 2017 Guidelines assert that: "patients with gender dysphoria often must be treated with 'a safe and effective hormone regimen. . .'" (Adkins at 6.) Notably, however, the Guidelines do not make any firm statement that use of puberty blockers for this purpose *is* safe, and the Guidelines go no further than "suggest[ing]" use of puberty blockers—language the Guidelines warn represents only a "weak recommendation." (Hembree 2017 at 3872.) Several authors have pointed out that not only were the Endocrine Society suggestions regarding use of puberty blockers reached on the basis of "low quality" evidence, but its not-quite claims of 'safety' and 'efficacy' are starkly contradicted by several in-depth evidence reviews. (Laidlaw et al., 2019; Malone et al. 2021.) I detail these contradictory findings in more detail in Section VII below.

88. While there is too little meaningful clinical data and no consensus concerning best practices or a "standard of care" this area, there are long-standing ethical principles that do or should bind all medical and mental health professionals as they work with, counsel, and prescribe for these individuals.

89. One of the oldest and most fundamental principles guiding medical and psychological care—part of the Hippocratic Oath—is that the physician must "do no harm." This states an ethical responsibility that cannot be delegated to the patient. Physicians themselves must weigh the risks of treatment against the harm of not treating. If the risks of treatment outweigh the benefits, principles of medical ethics prohibit the treatment.

IV. TRANSGENDER IDENTITY IS NOT BIOLOGICALLY BASED.

90. Dr. Safer asserts that "Although the detailed mechanisms are unknown, there is a medical consensus that there is a significant biologic component underlying gender identity" and

that gender identity is a "largely biological phenomenon." (Safer at 5, 6.) Many advocates of affirmative care assert this belief.

91. However, it is not true. There is no medical consensus that transgender identity has any biological basis. Furthermore, there is considerable well-documented evidence that is inconsistent with the hypothesis of a biological basis for gender identity—at least in the large majority of currently-presenting patients.

A. No theory of biological basis has been scientifically validated.

92. At the outset, the attempt to identify a single "typically . . . biological" cause for psychiatric conditions (including gender dysphoria) has been strongly criticized as "out of step with the rest of medicine" and as a lingering "ghost" of an understanding of the nature of psychiatric conditions that is now broadly disproven. (Kendler 2019 at 1088-1089.) Gender dysphoria is defined and diagnosed only as a psychiatric, not a medical, condition.

93. Nonetheless, in a published article, Dr. Safer has referred to data that he asserts supports the existence of "a fixed, biologic basis for gender identity." (Saraswat et al. 2015 at 199.) But on the contrary, this article itself states that studies attempting to find an association between genetics and transgender identification "have been contradictory," and that "no statistically significant association between particular genes [and transgender identity] has been described." (Saraswat 2015 at 202.)

94. Similarly, while some have pointed to very small brain scan studies as evidence of a biological basis, no studies of brain structure of individuals identifying as transgender have found any statistically significant correlation between any distinct structure or pattern and transgender identification, after controlling for sexual orientation and exposure to exogenous hormones. (Sarawat et al. 2015 at 202; Frigerio et al. 2021.)

95. Indeed, the Endocrine Society 2017 Guidelines recognizes: "With current knowledge, we cannot predict the psychosexual outcome for any specific child" and "there are currently no criteria to identify the GD/gender-incongruent children to whom this applies. At the present time, clinical experience suggests that persistence of GD/gender incongruence can only be reliably assessed after the first signs of puberty." (Hembree et al. 2017 at 3876.)

96. In short, no biological test or measurement has been identified that provides any ability to predict which children will exhibit, and which children will persist in, gender dysphoria or a transgender identification. Unless and until such a test is identified, the theory of a biological basis is a hypothesis still searching for support. A hypothesis is not a fact, and responsible scientists will not confuse hypothesis with fact.

B. Large changes across time and geography in the epidemiology of transgender identification are inconsistent with the hypothesis of a biological basis for transgender identity.

97. In fact, there is substantial evidence that the "biological basis" theory is incorrect, at least with respect to the large majority of patients presenting with gender dysphoria today.

98. **Vast changes in incidence:** Historically, there were very low reported rates of gender dysphoria or transgender identification. In 2013, the DSM-5 estimated the incidence of gender dysphoria in adults to be at 2-14 per 100,000, or between 0.002% and 0.014%. (APA 2013 at 454.) Recently however, these numbers have increased dramatically, particularly in adolescent populations. Recent surveys estimate that between 2-9% of high school students self-identify as transgender or "gender non-conforming." with a significantly large increase in adolescents claiming "nonbinary" gender identity as well. (Johns et al. 2019; Kidd et al. 2021.) Consistent with these surveys, gender clinics around the world have seen numbers of referrals increase rapidly in the last decade, with the Tavistock clinic in London seeing a 30-fold increase in the last decade (GIDS 2019), and similar increases being observed in Finland (Kaltiala-Heino

et al. 2018), the Netherlands (de Vries 2020), and Canada (Zucker 2019). The rapid change in the number of individuals experiencing gender dysphoria points to social and cultural, not biological, causes.

99. **Large change in sex ratio:** In recent years there has been a marked shift in the sex ratio of patients presenting with gender dysphoria or transgender identification. The Tavistock clinic in London saw a ratio of 4 biological females(F):5 biological males(M) shift to essentially 11F:4M in a decade. (GIDS 2019.) One researcher summarizing multiple sources documented a swing of 1F:2M or 1F:1.4M through 2005 to 2F:1M generally (but as high as 7F:1M) in more recent samples. (Zucker 2019 at 2.) This phenomenon has been noted by Dr. Erica Anderson, who said: "The data are very clear that adolescent girls are coming to gender clinics in greater proportion than adolescent boys. And this is a change in the last couple of years. And it's an open question: What do we make of that? We don't really know what's going on. And we should be concerned about it." (Davis 2022.) Again, this large and rapid change in who is experiencing gender dysphoria points to social, not biological, causes.

100. **Clustering**: Dr. Littman's recent study documented "clustering" of new presentations of gender dysphoria among natal females in specific schools and among specific friend groups. This again points strongly to social causes for gender dysphoria at least among the adolescent female population. (Littman 2018.)

101. **Desistance:** As I discuss later, there are very high levels of desistance among children diagnosed with gender dysphoria, as well as increasing (or at least increasingly vocal) numbers of individuals who first asserted a transgender identity during or after adolescence, underwent substantial medical interventions to "affirm" that trans-identity, and then "desisted"

and reverted to a gender identity congruent with their sex. (See Section V.B below.) These narratives, too, point to a social and/or psychological cause, rather than a biological one.

102. **"Fluid" gender identification:** Advocates and some practitioners assert that gender identity is not binary, but can span an almost endless range of gender identity self-labels, which a given individual may try on, inhabit, and often discard. (A recent article identifies 72.[5]) I have not heard any theory offered for how there is or could be a biological basis for gender identity as now expansively defined.

103. I frequently read attempts to explain away the points in this Section IV. They include: these problems always existed, but children are now learning that there are effective treatments for their dilemma and are simply seeking them. And; children have hidden their trans identity throughout childhood and now that trans people are recognized and accepted, they are presenting themselves. And; now pediatricians realize that girls can have gender dysphoria and are referring them to gender clinics. But these are all mere hypotheses unsupported by concrete evidence. One set of unproven hypotheses cannot provide support for the unproven hypothesis of biological basis. And none of these hypotheses could even potentially explain the failure of science thus far to identify any predictive biological marker of transgender identification.

104. **Therapies affect gender identity outcomes:** Finally, the evidence shows that therapeutic choices can have a powerful effect on whether and how gender identity does change, or gender dysphoria desists. Social transition of juveniles, for instance, strongly influences gender identity outcomes to such an extent that it has been described a "unique predictor of

[5] Allarakha, *What Are the 72 Other Genders?*, MedicineNet, available at: https://www.medicinenet.com/what_are_the_72_other_genders/article.htm

persistence." (See Section V.B below.) Again, this observation cuts against the hypothesis of biological origin.

C. Disorders of sexual development (or DSDs) and gender identity are very different phenomena, and it is an error to conflate the two.

105. Dr. Adkins spends much of her report discussing individuals who suffer from disorders of sexual development (DSDs), apparently as evidence that sex is not binary or clearly defined, or as somehow supporting the idea that transgender identification has a biological basis. (Adkins at 9.) I have extensively detailed that sex is clear, binary, and determined at conception. (Section II.) Here I explain that gender dysphoria is an entirely different phenomenon than DSDs—which unlike transgender identity are indeed biological phenomena. It is an error to conflate the two distinct concepts.

106. Every DSD reflects a genetic enzymatic defect with negative anatomic and physiological consequences. As the Endocrine Society recognized in a 2021 statement: "Given the complexities of the biology of sexual determination and differentiation, it is not surprising that there are dozens of examples of variations or errors in these pathways associated with genetic mutations that are now well known to endocrinologists and geneticists; in medicine, these situations are generally termed *disorders of sexual development* (DSD) or *differences in sexual development*." Gender Identity on the other hand is uniformly defined as a subjective "sense" of being, a feeling or state of mind. (Section II.C.)

107. The vast majority of those who experience gender dysphoria or a transgender identity do not suffer from any DSD, nor from any genetic enzymatic disorder at all. Conversely, many who suffer from a DSD do not experience a gender identity different from their chromosomal sex (although some may). In short, those who suffer from gender dysphoria are not a subset of those who suffer from a DSD, nor are those who suffer from a DSD a subset of those

who suffer from gender dysphoria. The two are simply different phenomena, one physical, the other mental, defined only as a psychiatric condition. The issue here is not whether biological forces play a role in personality development; it is whether there is strong evidence that it is determinative. Science has come too far to revert to single explanations for gender dysphoria or any psychiatric diagnosis.

108. The importance of this distinction is evident from the scientific literature. For example, in a recent study of clinical outcomes for gender dysphoric patients, Tavistock Clinic researchers *excluded* from their analysis any patients who did not have "normal endocrine function and karyotype consistent with birth registered sex." (Carmichael et al. 2021 at 4.) In other words, the researchers specifically *excluded* from their study anyone who suffered from genetic-based DSD, or a DSD comprising any serious defect in hormonal use pathways, in order to ensure the study was focused only on individuals experiencing the psychological effects of what we might call "ordinary" gender dysphoria.

D. Studies of individuals born with DSDs suggest that there may be a biological predisposition towards *typical* gender identifications, but provide no support for a biological basis for *trans*gender identification.

109. Studies of individuals born with serious DSDs have been pointed to as evidence of a biological basis for transgender identification. They provide no such support.

110. One well-known study by Meyer-Bahlburg reviewed the case histories of a number of XY (i.e. biologically male) individuals born with severe DSDs who were surgically "feminized" in infancy and raised as girls. (Meyer-Bahlburg 2005.) The majority of these individuals nevertheless later adopted male gender identity—suggesting a strong biological predisposition towards identification aligned with genetic sex, even in the face of feminized genitalia from earliest childhood, and parental "affirmation" in a transgender identity. But at the same time, the fact that some of these genetically male individuals did *not* later adopt male

gender identity serves as evidence that medical and social influences can indeed encourage and sustain transgender identification.

111. Importantly, the Meyer-Bahlburg study did *not* include any individuals who were assigned a gender identity congruent with their genetic sex who subsequently adopted a *trans*gender identity. Therefore, the study can provide no evidence of any kind that supports the hypothesis of a biological basis for *trans*gender identity. A second study in this area (Reiner & Gearhart 2004) likewise considered exclusively XY subjects, and similarly provides evidence only for a biological bias towards a gender identity congruent with one's genetic sex, even in the face of medical and social "transition" interventions. None of this provides any evidence at all of a biological basis for transgender identity.

V. GENDER IDENTITY IS EMPIRICALLY NOT FIXED FOR MANY INDIVIDUALS.

112. Dr. Safer states that gender identity is "durable and cannot be changed by medical intervention." (Safer at 5.) Dr. Adkins likewise states that gender identity "cannot be voluntarily changed." (Adkins at 4.) There is extensive evidence that this is not correct. Instead, gender identity changes over time for many individuals.[6] I summarize their two opinions as: they assert that a trans identity in a child or adolescent is immutable—unchangeable by medical, psychotherapeutic, or developmental processes.

A. Most children who experience gender dysphoria ultimately "desist" and resolve to cisgender identification.

113. A distinctive and critical characteristic of juvenile gender dysphoria is that multiple studies from separate groups and at different times have reported that in the large

[6] See n1 *supra*.

majority of patients, absent a substantial intervention such as social transition or puberty blocking hormone therapy, it does *not* persist through puberty.

114. A recent article reviewed all existing follow-up studies that the author could identify of children diagnosed with gender dysphoria (11 studies), and reported that "every follow-up study of GD children, without exception, found the same thing: By puberty, the majority of GD children ceased to want to transition." (Cantor 2019 at 1.) Another author reviewed the existing studies and reported that in "prepubertal boys with gender discordance . . . the cross gender wishes usually fade over time and do not persist into adulthood, with only 2.2% to 11.9% continuing to experience gender discordance." (Adelson et al. 2012 at 963; see also Cohen-Kettinis 2008 at 1895.) The Endocrine Society recognized this important baseline fact in its 2017 Guidelines. (Hembree 2017 at 3879.) It should be noted that the reason that the Dutch Protocol waited until age 14 to initiate puberty blockers was that it was well known that many children would desist if left free of hormonal intervention until that age.

115. Findings of high levels of desistance among children who experience gender dysphoria or incongruence have been reaffirmed in the face of critiques through thorough reanalysis of the underlying data. (Zucker 2018.)

116. As I explained in detail in Section IV above, it is not yet known how to distinguish those children who will desist from that small minority whose trans identity will persist.

117. It does appear that prevailing circumstances during particularly formative years can have a significant impact on the outcome of a juvenile's gender dysphoria. A 2016 study reviewing the follow-up literature noted that "the period between 10 and 13 years" was "crucial" in that "both persisters and desisters stated that the changes in their social environment, the

anticipated and actual feminization or masculinization of their bodies, and the first experiences of falling in love and sexual attraction in this period, contributed to an increase (in the persisters) or decrease (in the desisters) of their gender related interests, behaviors, and feelings of gender discomfort." (Ristori & Steensma 2016 at 16.) As I discuss in Section VI below, there is considerable evidence that early transition and affirmation causes far more children to persist in a transgender identity.

B. Desistance is increasingly observed among teens and young adults who first manifest GD during or after adolescence.

118. Desistance within a relatively short period may also be a common outcome for post-pubertal youths who exhibit recently described "rapid onset gender disorder." I have observed an increasingly vocal online community of young women who have reclaimed a female identity after claiming a male gender identity at some point during their teen years, and young "detransitioners" (individuals in the process of reidentifying with their birth sex after having undergone a gender transition) are now receiving increasing attention in both clinical literature and social media channels. (It is my understanding that March 12, 2022, is scheduled to be Detransition Awareness Day.)

119. Almost all scientific articles on this topic have appeared within the last few years. Perhaps this historic lack of coverage is not entirely surprising – one academic who undertook an extensive review of the available scientific literature in 2021 noted that the phenomenon was "socially controversial" in that it "poses significant professional and bioethical challenges for those clinicians working in the field of gender dysphoria." (Expósito Campos 2021 at 270.) This review reported on multifarious reasons for why individuals were motivated to detransition, which included coming to "understand[ ] how past trauma, internalized sexism, and other psychological difficulties influenced the experience of GD."

120. In 2021, Lisa Littman of Brown University conducted a ground-breaking study of 100 teenage and young adults who had transitioned and lived in a transgender identity for a number of years, and then "detransitioned" or changed back to a gender identity matching their sex. Littman noted that the "visibility of individuals who have detransitioned is new and may be rapidly growing." (Littman 2021 at 1.) Of the 100 detransitioners included in Littman's study, 60% reported that their decision to detransition was motivated (at least in part) by the fact that they had become more comfortable identifying as their natal sex, and 38% had concluded that their gender dysphoria was caused by something specific such as trauma, abuse, or a mental health condition. (Littman 2021 at 9.)

121. A significant majority (76%) did not inform their clinicians of their detransition. (Littman 2021 at 11.)

122. A similar study that recruited a sample of 237 detransitioners (the large majority of whom had initially transitioned in their teens or early twenties) similarly reported that a common reason for detransitioning was the subject's conclusion that his or her gender dysphoria was related to other issues (70% of the sample). (Vandenbussche 2021.)

123. The existence of increasing numbers of youth or young adult detransitioners has also been recently noted by Dr. Edwards-Leeper and Dr. Anderson. (Edwards-Leeper & Anderson 2021.) Edwards-Leeper and Anderson noted "the rising number of detransitioners that clinicians report seeing (they are forming support groups online)" which are "typically youth who experienced gender dysphoria and other complex mental health issues, rushed to medicalize their bodies and regretted it." Other clinicians working with detransitioners have also noted the recent phenomenon. (Marchiano 2020.)

124. A growing body of evidence suggests that for many teens and young adults, a post-pubertal onset of transgender identification can be a transient phase of identity exploration, rather than a permanent identity, as evidenced by a growing number of young detransitioners (Entwistle 2020; Littman 2021; Vandenbussche 2021). Previously, the rate of detransition and regret was reported to be very low, although these estimates suffered from significant limitations and were likely undercounting true regret (D'Angelo 2018). As gender-affirmative care has become popularized, the rate of detransition appears to be accelerating.

125. A recent study from a UK adult gender clinic observed that 6.9% of those treated with gender-affirmative interventions detransitioned within 16 months, and another 3.4% had a pattern of care suggestive of detransition, yielding a rate of probable detransition in excess of 10%. Another 21.7%, however, disengaged from the clinic without completing their treatment plan. While some of these individuals later re-engaged with the gender service, the authors concluded, "detransitioning might be more frequent than previously reported." (Hall et al. 2021).

126. Another study from a UK primary care practice found that 12.2% of those who had started hormonal treatments either detransitioned or documented regret, while the total of 20% stopped the treatments for a wider range of reasons. The mean age of their presentation with gender dysphoria was 20, and the patients had been taking gender-affirming hormones for an average 5 years (17 months-10 years) prior to discontinuing. Comparing these much higher rates of treatment discontinuation and detransition to the significantly lower rates reported by the older studies, the researchers noted: "Thus, the detransition rate found in this population is novel and questions may be raised about the phenomenon of overdiagnosis, overtreatment, or iatrogenic harm as found in other medical fields" (Boyd et al. 2022 at 15.) Indeed, given that regret may take up to 8-11 years to materialize (Dhejne et al., 2014; Wiepjes et al., 2018), many more

detransitioners are likely to emerge in the coming years. Detransitioner research is still in its infancy, but the Littman and Vandenbussche studies in 2021 both report that detransitioners from the recently transitioning cohorts feel they were rushed into medical gender-affirmative interventions with irreversible effects, often without the benefit of appropriate, or in some instances any, psychologic exploration.

VI. TRANSITION AND AFFIRMATION IS AN IMPORTANT PSYCHOLOGICAL AND MEDICAL INTERVENTION THAT CHANGES GENDER IDENTITY OUTCOMES.

A. If both a typical gender or a transgender long-term gender identity outcome are possible for a particular patient, the alternatives are not medically neutral.

127. Where a juvenile experiences gender dysphoria, the gender identity that is stabilized will have a significant impact on the course of their life. Living in a transgender identity for a time will make desistance, if it is ever considered, more difficult to accomplish.

128. If the juvenile desists from the gender dysphoria and becomes reasonably comfortable with a gender identity congruent with their sex—the most likely outcome from a statistical perspective absent affirming intervention—the child will not require ongoing pharmaceutical maintenance and will not have their fertility destroyed post-puberty.

129. However, if the juvenile persists in a transgender identity, under current practices, the child is most likely to require regular administration of hormones for the rest of their lives, exposing them to significant physical, mental health, and relational risks (which I detail in Section IX below), as well as being irreversibly sterilized chemically and/or surgically. The child is therefore rendered a "patient for life" with complex medical implications further to a scientifically unproven course of treatment.

B. Social transition of young children is a powerful psychotherapeutic intervention that radically changes outcomes, almost eliminating desistance.

130. Dr. Adkins asserts that social transition is a "a critical part" of the treatment of gender dysphoria. (Adkins at 6, 7). Rather, social transition has a critical *effect* on the persistence of gender dysphoria. It is evident from the scientific literature that engaging in therapy that encourages social transition before or during puberty—which would include participation on athletic teams designated for the opposite sex—is a psychotherapeutic intervention that dramatically changes outcomes. A prominent group of authors has written that "The gender identity affirmed during puberty appears to predict the gender identity that will persist into adulthood." (Guss et al. 2015 at 421.) Similarly, a comparison of recent and older studies suggests that when an "affirming" methodology is used with children, a substantial proportion of children who would otherwise have desisted by adolescence—that is, achieved comfort identifying with their natal sex—instead persist in a transgender identity. (Zucker 2018 at 7.)

131. Indeed, a review of multiple studies of children treated for gender dysphoria across the last three decades found that early social transition to living as the opposite sex severely reduces the likelihood that the child will revert to identifying with the child's natal sex, at least in the case of boys. That is, while, as I review above, studies conducted before the widespread use of social transition for young children reported desistance rates in the range of 80-98%, a more recent study reported that fewer than 20% of boys who engaged in a partial or complete social transition before puberty had desisted when surveyed at age 15 or older. (Zucker 2018 at 7[7]; Steensma et al. 2013.)[8] Another researcher observed that a partial or complete gender

[7] Zucker found social transition by the child to be strongly correlated with persistence for natal boys, but not for girls. (Zucker 2018 at 5.)

[8] Only 2 (3.6%) of 56 of the male desisters observed by Steensma et al. had made a complete or partial transition prior to puberty, and of the twelve males who made a complete or

social transition prior to puberty "proved to be a unique predictor of persistence." (Singh et al. 2021 at 14.)

132. Some vocal practitioners of prompt affirmation and social transition even proudly claim that essentially *no* children who come to their clinics exhibiting gender dysphoria or cross-gender identification desist in that identification and return to a gender identity consistent with their biological sex.[9] This is a very large change as compared to the desistance rates documented apart from social transition.

133. Even voices generally supportive of prompt affirmation and social transition are acknowledging a causal connection between social transition and this change in outcomes. As the Endocrine Society recognized in its 2017 Guidelines: "If children have completely socially transitioned, they may have great difficulty in returning to the original gender role upon entering puberty. . . [S]ocial transition (in addition to GD/gender incongruence) has been found to contribute to the likelihood of persistence." (Hembree et al. 2017 at 3879.) The fact is that these unproven interventions with the lives of kids and their families have systematically documented outcomes. Given this observed phenomenon, I agree with Dr. Ken Zucker who has written that social transition in children must be considered "a form of psychosocial treatment." (Zucker 2020 at 1.)

134. Moreover, as I review below, social transition cannot be considered or decided alone. Studies show that engaging in social transition starts a juvenile on a "conveyor belt" path

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partial transition prior to puberty, only two had desisted when surveyed at age 15 or older. Steensma 2013 at 584.

[9] *See, e.g.,* Ehrensaft 2015 at 34: "In my own clinical practice . . . of those children who are carefully assessed as transgender and who are allowed to transition to their affirmed gender, we have no documentation of a child who has 'desisted' and asked to return to his or her assigned gender."

that almost inevitably leads to the administration of puberty blockers, which in turn almost inevitably leads to the administration of cross-sex hormones. The emergence of this well-documented path means that the implications of taking puberty blockers *and* cross-sex hormones must be taken into account even where "only" social transition is being considered or requested by the child or family. As a result, there are a number of important "known risks" associated with social transition.

C. Administration of puberty blockers is a powerful medical and psychotherapeutic intervention that radically changes outcomes, almost eliminating desistance on the historically observed timeline.

135. Dr. Adkins speaks of the use of puberty blockers as though this major hormonal disruption of some of the most basic aspects of ordinary human development were entirely benign, acting as a "pause." (Adkins at 7.) This optimistic view is not based on science. In fact, it should be understood that puberty blockers are usually administered to early-stage adolescents as part of a path that includes social transition. Moreover, medicine does not know what the long-term health effects on bone, brain, and other organs are of a "pause" between ages 11-16. Medicine also does not know if the long-term effects of these compounds are different in boys than in girls. The mental health professional establishment likewise does not know the long-term effects on coping skills, interpersonal comfort, and intimate relationships of this "pause" while one's peers are undergoing their maturational gains in these vital arenas of future mental health. I address medical, social, and mental health risks associated with the use of puberty blockers in Section IX. Here, I note that the data strongly suggests that the administration of puberty blockers, too, must be considered to be a component of a "psychosocial treatment" with complex implications, rather than a "pause."

136. Multiple studies show that the large majority of children who begin puberty blockers go on to receive cross-sex hormones. (de Vries 2020 at 2.) A recent study by the

Tavistock and Portman NHS Gender Identity Development Service (UK)—the world's largest gender clinic—found that 98% of adolescents who underwent puberty suppression continued on to cross-sex hormones. (Carmichael et al 2021 at 12.)[10]

137. These studies demonstrate that going on puberty blockers virtually eliminates the possibility of desistance in juveniles. Rather than a "pause," puberty blockers appear to act as a psychosocial "switch," decisively shifting many children to a persistent transgender identity. Therefore, as a practical and ethical matter the decision to put a child on puberty blockers must be considered as the equivalent of a decision to put that child on cross-sex hormones, with all the considerations and informed consent obligations implicit in that decision.

VII. TRANSITION AND AFFIRMATION ARE EXPERIMENTAL THERAPIES THAT HAVE NOT BEEN SHOWN TO IMPROVE MENTAL OR PHYSICAL HEALTH OUTCOMES BY YOUNG ADULTHOOD.

138. It is undisputed that children and adolescents who present with gender dysphoria exhibit a very high level of mental health comorbidities. (Section II.C.) Whether the gender dysphoria is cause or effect of other diagnosed or undiagnosed mental health conditions, or whether these are merely coincident comorbidities, is hotly disputed, but the basic fact is not.

139. Dr. Adkins asserts that when the "transition, affirmation, and hormones" therapy that she advocates is followed, "gender dysphoria is easily managed" (Adkins at 5), implying that transition and hormone therapy have been proven to be effective in relieving gender dysphoria and the general mental health distress that broadly afflicts these children and adolescents. This is scientifically incorrect. It ignores both what is known and what is unknown.

[10] *See also* Brik 2020 where Dutch researchers found nearly 97% of adolescents who received puberty blockers proceeded to cross-sex hormones.

A. The knowledge base concerning therapies for gender dysphoria is "very low quality."

140. At the outset, it is important for all sides to admit that the knowledge base concerning the causes and treatment of gender dysphoria has low scientific quality.

141. In evaluating claims of scientific or medical knowledge, it is axiomatic in science that no knowledge is absolute, and to recognize the widely accepted hierarchy of reliability when it comes to "knowledge" about medical or psychiatric phenomena and treatments. Unfortunately, in this field opinion is too often confused with knowledge, rather than clearly locating what exactly is scientifically known. In order of increasing confidence, such "knowledge" may be based upon data comprising:

a. Expert opinion—it is perhaps surprising to educated laypersons that expert opinion standing alone is the lowest form of knowledge, the least likely to be proven correct in the future, and therefore does not garner as much respect from professionals as what follows;

b. A single case or series of cases (what could be called anecdotal evidence) (Levine 2016 at 239.);

c. A series of cases with a control group;

d. A cohort study;

e. A randomized double-blind clinical trial;

f. A review of multiple trials;

g. A meta-analysis of multiple trials that maximizes the number of patients treated despite their methodological differences to detect trends from larger data sets.

142. Prominent voices in the field have emphasized the severe lack of scientific knowledge in this field. The American Academy of Child and Adolescent Psychiatry has

recognized that "Different clinical approaches have been advocated for childhood gender discordance. . . . There have been no randomized controlled trials of any treatment. . . . [T]he proposed benefits of treatment to eliminate gender discordance … must be carefully weighed against … possible deleterious effects." (Adelson et al. at 968–69.) Similarly, the American Psychological Association has stated, "because no approach to working with [transgender and gender nonconforming] children has been adequately, empirically validated, consensus does not exist regarding best practice with pre-pubertal children." (APA 2015 at 842.)

143. Critically, "there are no randomized control trials with regard to treatment of children with gender dysphoria." (Zucker 2018 at 8.) On numerous critical questions relating to cause, developmental path if untreated, and the effect of alternative treatments, the knowledge base remains primarily at the level of the practitioner's exposure to individual cases, or multiple individual cases. As a result, claims to certainty are not justifiable. (Levine 2016 at 239.)

144. Within the last two years, at least three formal evidence reviews concerning hormonal interventions for gender dysphoria have been conducted. All three found all of the available clinical evidence to be very low quality.

145. The British National Health Service (NHS) commissioned formal "evidence reviews" of all clinical papers concerning the efficacy and safety of puberty blockers and cross-sex hormones as treatments for gender dysphoria. These evidence reviews were performed by the U.K. National Institute for Health and Care Excellence (NICE), applying the respected "GRADE" criteria for evaluating the strength of clinical evidence.

146. Both the review of evidence concerning puberty blockers and the review of evidence concerning cross-sex hormones were published in 2020, and both found that *all* available evidence as to both efficacy and safety was "very low quality" according to the

GRADE criteria. (NICE 2021a; NICE 2021b.) "Very low quality" according to GRADE means there is a high likelihood that the patient *will not experience* the hypothesized benefits of the treatment. (Balshem et al. 2011.)

147. Similarly, the highly respected Cochrane Library—the leading source of independent systematic evidence reviews in health care—commissioned an evidence review concerning the efficacy and safety of hormonal treatments now commonly administered to "transitioning transgender women" (i.e., testosterone suppression and estrogen administration to biological males). That review, also published in 2020, concluded that "We found insufficient evidence to determine the efficacy or safety of hormonal treatment approaches for transgender women in transition." (Haupt et al. 2020 at 2.) It must be understood that both the NICE and the Cochrane reviews considered *all* published scientific studies concerning these treatments.

148. As to social transition, as I have noted above, considerable evidence suggests that socially transitioning a pre-pubertal child puts him or her on a path from which very few children escape—a path which includes puberty blockers and cross-sex hormones before age 18. As a practical matter, then, a decision about social transition for a child must be made in light of what is known and what is unknown about the effects of those expected hormonal interventions.

149. I discuss safety considerations in Section IX below. Here, I detail what is known about the effectiveness of social and hormonal transition and affirmation to improve the mental health of individuals diagnosed with gender dysphoria.

B. Youth who adopt a transgender identity show no durable improvement in mental health after social, hormonal, or surgical transition and affirmation.

150. As I noted above, the evidence reviews for the efficacy and safety of hormonal interventions published in 2020 concluded that the supporting evidence is so poor that there is "a

high likelihood that the patient will not experience the hypothesized benefits of the treatment." There is now some concrete evidence that on average they do not experience those benefits.

151. An important paper published in 2021 by Tavistock clinic clinicians provided the results of the first longitudinal study that measured widely used metrics of general psychological function and suicidality before commencement of puberty blockers, and then at least annually after commencing puberty blockers. After up to three years, they "found no evidence of change in psychological function with GnRHa treatment as indicated by parent report (CBCL) or self-report (YSR) of overall problems, internalizing or externalizing problems or self-harm" as compared to the pre-puberty-blocker baseline evaluations. "Outcomes that were not formally tested also showed little change." (Carmichael at al. 2021 at 18-19.) Similarly, a study by Branström and Pachankis of the case histories of a set of individuals diagnosed with GD in Sweden found no positive effect on mental health from hormonal treatment. (Landen 2020.)

152. A cohort study by authors from Harvard and Boston Children's Hospital found that youth and young adults (ages 12-29) who self-identified as transgender had an elevated risk of depression (50.6% vs. 20.6%) and anxiety (26.7% vs. 10.0%); a higher risk of suicidal ideation (31.1% vs. 11.1%), suicide attempts (17.2% vs. 6.1%), and self-harm without lethal intent (16.7% vs. 4.4%) relative to the matched controls; and a significantly greater proportion of transgender youth accessed inpatient mental health care (22.8% vs. 11.1%) and outpatient mental health care (45.6% vs. 16.1%) services. (Reisner et al. 2015 at 6.) Similarly, a recent longitudinal study of transgender and gender diverse youth and young adults in Chicago found rates of alcohol and substance abuse "substantially higher than those reported by large population-based studies of youth and adults." (Newcomb et al. 2020 at 14.) Members of the clinical and research team at the prominent Dutch VU University gender dysphoria center recently compared mental

health metrics of two groups of subjects before (mean age 14.5) and after (mean age 16.8) puberty blockers. But they acknowledged that the structure of their study meant that it "can . . . not provide evidence about . . . long-term mental health outcomes," and that based on what continues to be extremely limited scientific data, "Conclusions about the long-term benefits of puberty suppression should . . . be made with extreme caution." In other words, we just don't know. (van der Miesen et al. 2020 at 703.)

153. Kiera Bell, who was diagnosed with gender dysphoria at the Tavistock Clinic, given cross-sex hormones, and subjected to a mastectomy, before desisting and reclaiming her female gender identity, and a Swedish teen girl who appeared in a recent documentary after walking that same path, have both stated that they feel that they were treated "like guinea pigs," experimental subjects. They are not wrong.

C. Long-term mental health outcomes for individuals who persist in a transgender identity are poor.

154. The responsible MHP cannot focus narrowly on the short-term happiness of the young patient, but must instead consider the happiness and health of the patient from a "life course" perspective. When we look at the available studies of individuals who continue to inhabit a transgender identity across adult years, the results are strongly negative.

155. In the United States, the death rates of trans veterans are comparable to those with schizophrenia and bipolar diagnoses—20 years earlier than expected. These crude death rates include significantly elevated rates of substance abuse as well as suicide. (Levine 2017 at 10.) Similarly, researchers in Sweden and Denmark have reported on almost all individuals who underwent sex-reassignment surgery over a 30-year period. (Dhejne et al. 2011; Simonsen et al. 2016.) The Swedish follow-up study similarly found a suicide rate in the post-SRS population

19.1 times greater than that of the controls; both studies demonstrated elevated mortality rates from medical and psychiatric conditions. (Levine 2017 at 10.)

156. A recent study in the American Journal of Psychiatry reported high mental health utilization patterns of adults for ten years after surgery for approximately 35% of patients. (Bränström & Panchankis, 2020.) Indeed, earlier Swedish researchers in a long-term study of all patients provided with SRS over a 30-year period (median time since SRS of > 10 years) concluded that individuals who have SRS exhibit such poor mental health that they should be provided very long-term psychiatric care as the "final" transition step of SRS. (Dhejne et al. 2011, at 6-7.) Unfortunately, across the succeeding decade, in Sweden and elsewhere their suggestion has been ignored.

157. I will note that these studies do not tell us whether the subjects first experienced gender dysphoria as children, adolescents, or adults, so we cannot be certain how their findings apply to each of these subpopulations which represent quite different pathways. But in the absence of knowledge, we should be cautious.

158. Meanwhile, no studies show that affirmation of pre-pubescent children or adolescents leads to more positive outcomes (mental, physical, social, or romantic) by, e.g., age 25 or older than does "watchful waiting" or ordinary therapy.

159. The many studies that I have cited here warn us that as we look ahead to the patient's life as a young adult and adult, the prognosis for the physical health, mental health, and social well-being of the child or adolescent who transitions to live in a transgender identity is not good. Gender dysphoria is not "easily managed" when one understands the marginalized, vulnerable physical, social, and psychological status of adult trans populations.

VIII. TRANSITION AND AFFIRMATION DO NOT DECREASE, AND MAY INCREASE, THE RISK OF SUICIDE.

A. The risk of suicide among transgender youth is confused and exaggerated in the public mind.

160. While suicide is closely linked to mental health, I comment on it separately because rhetoric relating to suicide figures so prominently in debates about responses to gender dysphoria.

161. At the outset, I will note that any discussion of suicide when considering younger children involves very long-range and very uncertain prediction. Suicide in pre-pubescent children is extremely rare, and the existing studies of gender identity issues in pre-pubescent children do not report significant incidents of suicide. Any suggestion otherwise is misinformed. Our focus for this topic, then, is on adolescents and adults.

162. Some authors have reported rates of suicidal thoughts and behaviors among trans-identifying teens or adults ranging from 25% to as high as 52%, generally through non-longitudinal self-reports obtained from non-representative survey samples. (Toomey et al. 2018.) Dr. Adkins asserted in her declaration submitted in support of Plaintiff's preliminary injunction motion that "Attempted suicide rates in the transgender community are over 40%," and that "[t]he only treatment to avoid this serious harm is to . . . affirm gender identity." (Adkins at 6.) Contrary to these assertions, no studies show that affirmation of children (or anyone else) reduces suicide, prevents suicidal ideation, or improves long-term outcomes, as compared to either a "watchful waiting" or a psychotherapeutic model of response, as I have described above. Rhetorical references to figures such as 40%—and some published studies—confuse suicidal thoughts and actions that represent a cry for help, manipulation, or expression of rage with serious attempts to end life. Such statements or studies ignore a crucial and long-recognized distinction.

163. I have included suicidality in my discussion of mental health above. Here, I focus on actual suicide. Too often, in public comment suicidal thoughts are blurred with suicide. Yet the available data tells us that suicide among children and youth suffering from gender dysphoria is extremely rare.

164. An important new analysis of data covering patients as well as those on the waiting list (and thus untreated) at the UK Tavistock gender clinic—the world's largest gender clinic—found a total of only four completed suicides across 11 years' worth of patient data, reflecting an estimated cumulative 30,000 patient-years spent by patients under the clinic's care or on its waiting list. This corresponded to an annual suicide rate of 0.013%. The proportion of individual patients who died by suicide was 0.03%, which is orders of magnitude smaller than trans adolescents who self-report suicidal behavior or thoughts on surveys. (Biggs 2022b.)

165. Thus, only a minute fraction of trans-identifying adolescents who report thoughts or conduct considered to represent "suicidality" actually commit suicide. I agree with the statement by Dr. Zucker that the assertion by, for example, Karasic and Ehrensaft (2015) that completed suicides among transgender youth are "alarmingly high" "has no formal and systematic empirical basis." (Zucker 2019 at 3.)

166. Professor Biggs of Oxford, author of the study of incidence of suicide among Tavistock clinic patients, rightly cautions that it is "irresponsible to exaggerate the prevalence of suicide." (Biggs 2022b at 4.) It is my opinion that telling parents—or even allowing them to believe from their internet reading—that they face a choice between "a live son or a dead daughter" is both factually wrong and unethical. Informed consent requires clinicians to tell the truth and ensure that their patients understand the truth. To be kind, the clinicians who believe

such figures represent high risk of ultimate suicide in adolescence simply do not know the truth; they are ill-informed.

B. Transition of any sort has not been shown to reduce levels of suicide.

167. Every suicide is a tragedy, and steps that reduce suicide should be adopted. I have noted above that suicidality (that is, suicidal thoughts or behaviors, rather than suicide) is common among transgender adolescents and young adults before, during, and after social and medical transition. If a medical or mental health professional believes that an individual he or she is diagnosing or treating for gender dysphoria presents a suicide risk, in my view it is unethical for that professional merely to proceed with treatment for gender dysphoria and hope that "solves the problem." Rather, that professional has an obligation to provide or refer the patient for evidence-based therapies for addressing depression and suicidal thoughts that are well-known to the profession. (Levine 2016 at 242.)

168. This is all the more true because there is in fact no evidence that social and/or medical transition reduces the risk or incidence of actual suicide. On the contrary, in his analysis of those who were patients of or on the waiting list of the Tavistock clinic, Professor Biggs found that the suicide rate was not higher among those on the clinic's waiting list (and thus as-yet untreated), than for those who were patients under care. (Biggs 2022b.) And as corrected, Bränström and Pachankis similarly acknowledge that their review of records of GD patients "demonstrated no advantage of surgery in relation to . . . hospitalizations following suicide attempts." (I assume for this purpose that attempts that result in hospitalization are judged to be so serious as to predict a high rate of future suicide if not successfully addressed.")[11]

[11] Turban et al. (2020) has been described in press reports as demonstrating that administration of puberty suppressing hormones to transgender adolescents reduces suicide or suicidal ideation. The paper itself does not make that claim, nor permit that conclusion.

C. Long-term life in a transgender identity correlates with very high rates of completed suicide.

169. As with mental health generally, the patient, parent, or clinician fearing the risk of suicide must consider not just the next month or year, but a life course perspective.

170. There are now four long-term studies that analyze completed suicide among those living in transgender identities into adulthood. The results vary significantly, but are uniformly highly negative.

171. Dhejne reported a long-term follow-up study of subjects after sex reassignment surgery. Across the multi-year study, subjects who had undergone SRS committed suicide at 19.1 times the expected rate compared to general population controls matched by age and both sexes. MtF subjects committed suicide at 13.9 times the expected rate, and FtM subjects committed suicide at 40.0 times the expected rate. (Dhejne et al. 2011 Supplemental Table S1.)

172. Asscheman, also writing in 2011, reported results of a long-term follow-up of all transsexual subjects of the Netherlands' leading gender medicine clinic who started cross-sex hormones before July 1, 1997, a total of 1331 patients. Due to the Dutch system of medical and death records, extensive follow-up was achieved. Median follow-up period was 18.5 years. The mortality rate among MtF patients was 51% higher than among the age-matched general population; the rate of completed suicide among MtF patients was six times that of the age-matched general population. (Asscheman et al. 2011.)

173. Importantly, Asscheman et al. found that "No suicides occurred within the first 2 years of hormone treatment, while there were six suicides after 2-5 years, seven after 5-10 years, and four after more than 10 years of CSH treatment at a mean age of 41.5 years." (Asscheman et al. 2011 at 637-638.) This suggests that studies that follow patients for only a year or two after treatment are insufficient. Asscheman et al.'s data suggest that such short-term follow-up is

engaging only with an initial period of optimism, and will simply miss the feelings of disillusion and the increase in completed suicide that follows in later years.

174. A retrospective, long-term study published in 2020 of a very large cohort (8263) of patients referred to the Amsterdam University gender clinic between 1972 and 2017 found that the annual rate of completed suicides among the transgender subjects was "three to four times higher than the general Dutch population." "[T]he incidence of observed suicide deaths was almost equally distributed over the different stages of treatment." The authors concluded that "vulnerability for suicide occurs similarly in the different stages of transition." (Wiepjes et al. 2020.) In other words, neither social nor medical transition reduced the rate of suicide.

175. As with Asscheman et al., Wiepjes et al. found that the median time between start of hormones and suicide (when suicide occurred) was 6.1 years for natal males, and 6.9 years for natal females. Again, short- or even medium-term studies will miss this suicide phenomenon.

176. A 2021 study analyzed the case histories of a cohort of 175 gender dysphoria patients treated at one of the seven UK adult gender clinics who were "discharged" (discontinued as patients) within a selected one-year period. The authors reported the rather shocking result that 7.7% (3/39) of natal males who were diagnosed and admitted for treatment, and who were between 17 and 24 years old, were "discharged" because they committed suicide *during* treatment. (Hall et al. 2021, Table 2.)

177. None of these studies demonstrates that the hormonal or surgical intervention *caused* suicide. That is possible, but as we have seen, the population that identifies as transgender suffers from a high incidence of comorbidities that correlate with suicide. What these studies demonstrate—at the least—is that this remains a troubled population in need of extensive and careful psychological care that they generally do not receive, and that neither

hormonal nor surgical transition and "affirmation" resolve their underlying problems and put them on the path to a stable and healthy life.

178. In sum, claims that affirmation will reduce the risk of suicide for children and adolescents are not based on science. Instead, transition of any sort must be justified, if at all, as a life-enhancing measure, not a lifesaving measure. (Levine 2016 at 242.) In my opinion, this is an important fact that patients, parents, and even many MHPs fail to understand.

IX. HORMONAL INTERVENTIONS ARE EXPERIMENTAL PROCEDURES THAT HAVE NOT BEEN PROVEN SAFE.

179. Dr. Adkins also appears to assert as a fact—but without citation to peer-reviewed literature—that social transition, puberty blockers, and cross-sex hormones are known to be "safe." (Adkins at 5-6, 8.) This is not true. And Dr. Adkins, along with a number of voices in the field, also asserts that puberty blockers act merely as a "pause" in the process of puberty-driven maturation, suggesting that this hormonal intervention has been proven to be fully reversible. This is also an unproven belief.

180. On the contrary, no studies have been done that meaningfully demonstrate that either puberty blockers or cross-sex hormones, as prescribed for gender dysphoria, are safe in other than the short run. No studies have attempted to determine whether the effects of puberty blockers, as currently being prescribed for gender dysphoria, are fully reversible. Neither Dr. Adkins nor Dr. Safer cites any such studies, and there are none. There are only pronouncements. In fact, there are substantial reasons for concern that these hormonal interventions are not safe. Multiple researchers have expressed concern that the full range of possible harms have not even been correctly conceptualized.

181. Because, as I have explained in Section VI, recent evidence demonstrates that pre-pubertal social transition almost always leads to progression on to puberty blockers which in turn

almost always leads to the use of cross-sex hormones, physicians bear the ethical responsibility for a thorough informed consent process for parents and patients that includes this fact and its full implications. Informed consent does not mean sharing with the parents and patients what the doctor believes: it means sharing what is known and what is not known about the intervention. So much of what doctors believe is based on mere trust in what they have been taught. Neither they themselves nor their teachers may be aware of the scientific foundation and scientific limitations of what they are recommending.

A. Use of puberty blockers has not been shown to be safe or reversible for gender dysphoria.

182. As I noted above, the recent very thorough literature review performed for the British NHS concluded that *all* available clinical evidence relating to "safety outcomes" from administration of puberty blockers for gender dysphoria is of "very low certainty." (NHS 2020a at 6.)

183. In its 2017 Guidelines, the Endocrine Society cautioned that "in the future we need more rigorous evaluations of the effectiveness and safety of endocrine and surgical protocols" including "careful assessment of . . . the effects of prolonged delay of puberty in adolescents on bone health, gonadal function, and the brain (including effects on cognitive, emotional, social, and sexual development)." (Hembree et al. 2017 at 3874.) No such "careful" or "rigorous" evaluation of these very serious safety questions has yet been done.

184. Some advocates appear to assume that puberty blockers are "safe" because they have been approved by the Food and Drug Administration (FDA) for use to treat precocious puberty—a rare condition in which the puberty process may start at eight or younger. No such conclusion can be drawn. As the "label" for Lupron (one of the most widely prescribed puberty blockers) explains, the FDA approved the drug only *until* the "age was appropriate for entry into

puberty." The study provides no information at all as to the safety or reversibility of instead *blocking* healthy, normally-timed puberty's beginning, and *throughout* the years that body-wide continuing changes normally occur. Given the physical, social, and psychological dangers to the child with precocious puberty, drugs like Lupron are effective in returning the child to a puerile state without a high incidence of significant side effects—that is, they are "safe" to reverse the condition. But use of drugs to suppress normal puberty has multiple organ system effects whose long-term consequences have not been investigated.

185. **Fertility**: The Endocrine Society Guidelines rightly say that research is needed into the effect of puberty blockade on "gonadal function" and "sexual development." The core purpose and function of puberty blockers is to prevent the maturation of the ovaries or testes, the sources of female hormones and male hormones when stimulated by the pituitary gland. From this predictable process fertility is accomplished within a few years. Despite widespread assertions that puberty blockers are "fully reversible," there has been no study published on the critical question of whether patients ever develop normal levels of fertility if puberty blockers are terminated after a "prolonged delay of puberty." The 2017 Endocrine Society Guidelines are correct that are no data on achievement of fertility "following prolonged gonadotropin suppression" (that is, puberty blockade). (Hembree et al. 2017 at 3880.)

186. **Bone strength**: Multiple studies have documented adverse effects from puberty blockers on bone density. (Klink et al. 2015; Vlot et al. 2016; Joseph et al. 2019.) The most recent found that after two years on puberty blockers, the bone density measurements for a significant minority of the children had declined to clinically concerning levels. Density in the spines of some subjects fell to a level found in only 0.13% of the population. (Biggs 2021.) Some

other studies have found less concerning effects on bone density. While the available evidence remains limited and conflicting, it is not possible to conclude that the treatment is "safe."

187. **Brain development:** Important neurological growth and development in the brain occurs across puberty. The anatomic and functional effect on brain development of blocking the natural puberty process has not been well studied. A prominent Australian clinical team recently expressed concern that "no data were (or are) available on whether delaying the exposure of the brain to a sex steroid affects psychosexual, cognitive, emotional, or other neuropsychological maturation." (Kozlowska et al. 2021 at 89.) In my opinion, given the observed correlation between puberty and brain development, the default hypothesis must be that there *would* be a negative impact. For the purpose of protecting patients all over the world, the burden of proof should be on advocates to first demonstrate to a reasonable degree of certainty that brain structure and its measurable cognitive and affect processing are not negatively affected. This recalls the ethical principle: Above All Do No Harm.

188. The Endocrine Society Guidelines acknowledge as much, stating that side effects of pubertal suppression "may include . . . unknown effects on brain development," that "we need more rigorous evaluations of . . . the effects of prolonged delay of puberty in adolescents on . . . the brain (including effects on cognitive, emotional, social, and sexual development)," and stating that "animal data suggests there may be an effect of GnRH analogs [puberty blockers] on cognitive function." (Hembree et al. 2017 at 3874, 3882, 3883.) Given this concern, one can only wonder why this relevant question has not been scientifically investigated in a large group of natal males and females.

189. There has been a longitudinal study of one natal male child, assessed before, and again 20 months after, puberty suppression was commenced. It reported a reduction in the

patient's "global IQ," measured an anomalous absence of certain structural brain development expected during normal male puberty, and hypothesized that "a plausible explanation for the G[lobal] IQ decrease should consider a disruption of the synchronic [i.e., appropriately timed] development of brain areas by pubertal suppression." (Schneider et al. 2017 at 7.) This should cause parents and practitioners serious concern.

190. Whether any impairment of brain development is "reversed" upon later termination of puberty blockade has, to my knowledge, not been studied at all. As a result, assertions by medical or mental health professionals that puberty blockade is "fully reversible" are unjustified and based on hope rather than science.

191. Without a number of additional case studies—or preferably statistically significant clinical studies—two questions remain unanswered: Are there brain anatomic or functional impairment from puberty blockers? And are the documented changes reversed over time when puberty blockers are stopped? With these questions unanswered, it is impossible to assert with certainty that the effects of this class of medications are "fully reversible." Such an assertion is another example of ideas based on beliefs rather than on documentation, on hope not science.

192. **Psycho-social harm**: Puberty is a time of stress, anxiety, bodily discomfort during physical development, and identity formation for *all* humans. No careful study has been done of the long-term impact on the young person's coping skills, interpersonal comfort, and intimate relationships from remaining puerile for, e.g., two to five years while one's peers are undergoing pubertal transformations, and of then undergoing an artificial puberty at an older age. However, pediatricians and mental health professionals hear of distress, concern, and social awkwardness in those who naturally have a delayed onset of puberty. In my opinion, individuals

in whom puberty is delayed multiple years are likely to suffer at least subtle negative psychosocial and self-confidence effects as they stand on the sidelines witnessing their peers developing the social relationships (and attendant painful social learning experiences) that come with adolescence. (Levine 2018 at 9.) Social anxiety and social avoidance are common findings in the evaluation of trans-identified children and teens. Are we expected to believe that creating years of being further different than their peers has no lasting internal consequences? Do we ignore Adolescent Psychiatry's knowledge of the importance of peer groups among adolescents?

193. We simply do not know what all the psychological impacts of NOT grappling with puberty at the ordinary time may be, because it has not been studied. And we have no information as to whether that impact is "fully reversible."

194. In addition, since the overwhelming proportion of children who begin puberty blockers continue on to cross-sex hormones, it appears that there is an important element of "psychological irreversibility" in play. The question of to what extent the physical and developmental impacts of puberty blockers might be reversible is an academic one, if psycho-social realities mean that very few patients well ever be able to make that choice once they have started down the road of social transition and puberty blockers.

B. Use of cross-sex hormones in adolescents for gender dysphoria has not been shown to be medically safe except in the short term.

195. As with puberty blockers, all evidence concerning the safety of extended use of cross-sex hormones is of "very low quality." The U.K. NICE evidence review cautioned that "the safety profiles" of cross-sex hormone treatments are "largely unknown," and that several of the limited studies that do exist reported high numbers of subjects "lost to follow-up," without explanation—a worrying indicator. (NICE 2020b.)

196. The 2020 Cochrane Review reported that: "We found insufficient evidence to determine the . . . safety of hormonal treatment approaches for transgender women in transition." (Haupt et al. 2020 at 4.) Even the Endocrine Society tagged all its recommendations for the administration of cross-sex hormones as based on "low quality evidence." (Hembree et al. 2017 at 3889.)

197. **Sterilization**: It is undisputed, however, that harm to the gonads is an expected effect, to the extent that it must be assumed that cross-sex hormones will sterilize the patient. Thus, the Endocrine Society 2017 Guidelines caution that "[p]rolonged exposure of the testes to estrogen has been associated with testicular damage," that "[r]estoration of spermatogenesis after prolonged estrogen treatment has not been studied," and that "[i]n biological females, the effect of prolonged treatment with exogenous testosterone upon ovarian function is uncertain." (Hembree et al. 2017 at 3880.) [12]

198. The Guidelines go on to recommend that the practitioner counsel the patient about the (problematic and uncertain) options available to collect and preserve fertile sperm or ova before beginning cross-sex hormones. The life-long negative emotional impact of infertility on both men and women has been well studied. While this impact has not been studied specifically within the transgender population, the opportunity to be a parent is likely a human, emotional need, and so should be considered an important risk factor when considering gender transition for any patient.

[12] *See also* Guss et al. 2015 at 4 ("a side effect [of cross-sex hormones] may be infertility") and at 5 ("cross-sex hormones . . . may have irreversible effects"); Tishelman et al. 2015 at 8 (Cross-sex hormones are "irreversible interventions" with "significant ramifications for fertility").

199. **Sexual response**: Puberty blockers prevent maturation of the sexual organs and response. Some, and perhaps many, transgender individuals who did not go through puberty consistent with their sex and are then put on cross-sex hormones face significantly diminished sexual response as they enter adulthood and are unable ever to experience orgasm. In the case of males, the cross-sex administration of estrogen limits penile genital growth and function. In the case of females, prolonged exposure to exogenous testosterone impairs vaginal function. Much has been written about the negative psychological and relational consequences of anorgasmia among non-transgender individuals that is ultimately applicable to the transgendered. (Levine 2018 at 6.) At the same time, prolonged exposure of females to exogenous testosterone often increases sexual drive to a distracting degree. It is likely that parents and physicians are uncomfortable discussing any aspects of genital sexual activity with patients.

200. **Cardiovascular harm**: Several researchers have reported that cross-sex hormones increase the occurrence of various types of cardiovascular disease, including strokes, blood clots, and other acute cardiovascular events. (Getahun et al. 2018; Guss et al. 2015; Asscheman et al. 2011.) With that said, I agree with the conclusion of the Endocrine Society committee (like that of the NICE Evidence Review) that: "A systematic review of the literature found that data were insufficient (due to very low–quality evidence) to allow a meaningful assessment of patient-important outcomes, such as death, stroke, myocardial infarction, or venous thromboembolism in transgender males. Future research is needed to ascertain the potential harm of hormonal therapies." (Hembree et al. 2017 at 3891.) Future research questions concerning long-term harms need to be far more precisely defined. The question of whether cross-sex hormones are safe for adolescents and young adults cannot be answered by analogies to hormone replacement therapy in menopausal women (which is not a cross-sex usage).

Medicine has answered safety questions for menopausal women in terms of cancer and cardiovascular safety: at what dose, for what duration, and at what age range. The science of endocrine treatment of gender dysphoric youth is being bypassed by short-term clinical impressions of safety even though physicians know that cardiovascular and cancer processes often develop over many years.

201. Further, in contrast to administration for menopausal women, hormones begun in adolescence are likely to be administered for four to six decades. The published evidence of adverse impact, coupled with the lack of data sufficient to reach a firm conclusion, make it irresponsible to assert that cross-sex hormones "are safe."

202. **Harm to family and friendship relationships:** As a psychiatrist, I recognize that mental health is a critical part of health generally, and that relationships cannot be separated from and profoundly impact mental health. Gender transition routinely leads to isolation from at least a significant portion of one's family in adulthood. In the case of a juvenile transition, this will be less dramatic while the child is young, but commonly increases over time as siblings who marry and have children of their own do not wish the transgender individual to be in contact with those children. By adulthood, the friendships of transgender individuals tend to be confined to other transgender individuals (often "virtual" friends known only online) and the generally limited set of others who are comfortable interacting with transgender individuals. (Levine 2017 at 5.) My concerns about this are based on decades of observations in my professional work with patients.

203. **Sexual-romantic harms associated with transition:** After adolescence, transgender individuals find the pool of individuals willing to develop a romantic and intimate relationship with them to be greatly diminished. When a trans person who passes well reveals his or her natal sex, many potential mates lose interest. When a trans person does not pass well,

options are likely further diminished. But regardless of a person's appearance, these adults soon learn that many of their dates are looking for exotic sexual experiences rather than genuinely loving relationships. (Levine 2017 at 5, 13; Levine 2013 at 40.)

C. The timing of harms.

204. The multi-year delay between start of hormones and the spike in completed suicide observed by Professor Biggs in the Tavistock data (as discussed in Section VIII above) warns us that the safety and beneficence of these treatments cannot be judged based on short-term studies, or studies that do not continue into adulthood. Similarly, several of the harms that I discuss above would not be expected to manifest until the patients reaches at least middle-age. For example, stroke or other serious cardiovascular event is a complication that is unlikely to manifest during teen years even if its likelihood over the patient's lifetime has been materially increased via obesity, lipid abnormalities, and smoking. Regret over sterilization or over an inability to form a stable romantic relationship may occur sooner. Psychological challenges of being a trans adult may become manifest after the medical profession is only doing routine follow up care—or, in many cases, has lost contact with the patient altogether. Because few, if any, clinics in this country are conducting systematic long-term follow-up with their child and adolescent patients, the doctors who counsel, prescribe, or perform hormonal and surgical therapies are unlikely ever to become aware of the later negative life impacts, however severe. These concerns are compounded by the findings in the recent "detransitioner" research that 76% did not inform their clinicians of their detransition. (Littman 2021.)

205. The possibility that steps along the transition and affirmation pathway, while lessening the pain of gender dysphoria in the short term, could lead to additional sources of crippling emotional and psychological pain, are too often not considered by advocates of social transition and not considered at all by the trans child. (Levine 2016 at 243.) Clinicians must

distinguish the apparent short-term safety of hormones from likely or possible long-term consequences, and help the patient or parents understand these implications as well. The young patient may feel, "I don't care if I die young, just as long I get to live as a woman." The mature adult may take a different view. Hopefully, so will the child's physician.

206. Individual patients often pin excessive hope in transition, believing that transition will solve what are in fact ordinary social stresses associated with maturation, or mental health co-morbidities. In this way, transition can prevent them from mastering personal challenges at the appropriate time or directly addressing conditions that require treatment. When the hoped-for "vanishing" of other mental health or social difficulties does not occur, disappointment, distress, and depression may ensue. It is noteworthy that half of the respondents to the larger "detransitioner" survey reported that their transition had not helped the gender dysphoria, and 70% had concluded that their gender dysphoria was related to other issues. (Vandenbussche 2021.) Without the clinical experience of monitoring the psychosocial outcomes of these young patients as they age into adulthood, many such professionals experience no challenge to their affirmative beliefs. But medical and mental health professionals who deliver trans affirmative care for those with previous and co-existing mental health problems have an ethical obligation to inform themselves, and to inform patients and parents, that these dramatic treatments are not a panacea.

207. In sum, whether we consider physical or mental health, science does not permit us to say that either puberty blockers or cross-sex hormones are "safe," and the data concerning the mental health of patients before, during, and after such treatments strongly contradict the assertion that gender dysphoria is "easily managed."

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Zucker, K. (2020). *Different strokes for different folks.* CHILD ADOLESC MENT HEALTH 25(1): 36–37. https://doi: 10.1111/camh.12330.

LEVINE EXPERT REPORT

EXHIBIT A

Stephen B. Levine, M.D.

Curriculum Vita
February, 2022

Brief Introduction

Dr. Levine is Clinical Professor of Psychiatry at Case Western Reserve University School of Medicine. He is the author or coauthor of numerous books on topics relating to human sexuality and related relationship and mental health issues. Dr. Levine has been teaching, providing clinical care, and writing since 1973, and has generated original research, invited papers, commentaries, chapters, and book reviews. He has served as a journal manuscript and book prospectus reviewer for many years. Dr. Levine has been co-director of the Center for Marital and Sexual Health/ Levine, Risen & Associates, Inc. in Beachwood, Ohio from 1992 to the present. He received a lifetime achievement Masters and Johnson's Award from the Society for Sex Therapy and Research in March 2005.

Personal Information

Date of birth 1/14/42

Medical license no. Ohio 35-03-0234-L

Board Certification 6/76 American Board of Neurology and Psychiatry

Education

1963 BA Washington and Jefferson College

1967 MD Case Western Reserve University School of Medicine

1967-68 internship in Internal Medicine University Hospitals of Cleveland

1968-70 Research associate, National Institute of Arthritis and Metabolic Diseases, Epidemiology Field Studies Unit, Phoenix, Arizona, United States Public Health Service

1970-73 Psychiatric Residency, University Hospitals of Cleveland

1974-77 Robert Wood Johnson Foundation Clinical Scholar

Appointments at Case Western Reserve University School of Medicine

1973- Assistant Professor of Psychiatry

1979- Associate Professor

1982- Awarded tenure

1985- Full Professor

1993- Clinical Professor

Honors

Summa Cum Laude, Washington & Jefferson

Teaching Excellence Award-1990 and 2010 (Residency program)

Visiting Professorships

- Stanford University-Pfizer Professorship program (3 days)–1995
- St. Elizabeth's Hospital, Washington, DC –1998
- St. Elizabeth's Hospital, Washington, DC--2002

Named to America's Top Doctors consecutively since 2001

Invitations to present various Grand Rounds at Departments of Psychiatry and Continuing Education Lectures and Workshops

Masters and Johnson Lifetime Achievement Award from the Society of Sex Therapy and Research, April 2005 along with Candace Risen and Stanley Althof

2006 SSTAR Book Award for The Handbook of Clinical Sexuality for Mental Health Professionals: Exceptional Merit

2018—Albert Marquis Lifetime Achievement Award from Marquis Who's Who. (Exceling in one's field for at least twenty years)

Professional Societies

1971- American Psychiatric Association; fellow; #19909

2005- American Psychiatric Association, Distinguished Life Fellow

1973- Cleveland Psychiatric Society

1973- Cleveland Medical Library Association

- 1985 - Life Fellow
- 2003 - Distinguished Life Fellow

1974-Society for Sex Therapy and Research

- 1987-89-President

1983- International Academy of Sex Research

1983- Harry Benjamin International Gender Dysphoria Association

- 1997-8 Chairman, Standards of Care Committee

1994- 1999 Society for Scientific Study of Sex

Community Boards

1999-2002 Case Western Reserve University Medical Alumni Association

1996-2001 Bellefaire Jewish Children's Bureau

1999-2001 Physicians' Advisory Committee, The Gathering Place (cancer rehabilitation)

Editorial Boards

1978-80 Book Review Editor Journal Sex and Marital Therapy

Manuscript Reviewer for:

a. Archives of Sexual Behavior
b. Annals of Internal Medicine
c. British Journal of Obstetrics and Gynecology
d. JAMA
e. Diabetes Care
f. American Journal of Psychiatry
g. Maturitas
h. Psychosomatic Medicine
i. Sexuality and Disability
j. Journal of Nervous and Mental Diseases
k. Journal of Neuropsychiatry and Clinical Neurosciences
l. Neurology
m. Journal Sex and Marital Therapy
n. Journal Sex Education and Therapy
o. Social Behavior and Personality: an international journal (New Zealand)
p. International Journal of Psychoanalysis
q. International Journal of Transgenderism
r. Journal of Urology
s. Journal of Sexual Medicine
t. Current Psychiatry
u. International Journal of Impotence Research
v. Postgraduate medical journal
w. Academic Psychiatry

Prospectus Reviewer

a. Guilford

b. Oxford University Press

c. Brunner/Routledge

d. Routledge

Administrative Responsibilities

Principal Investigator of approximately 70 separate studies involving pharmacological interventions for sexual dysfunction since 1989.

Co-leader of case conferences at DELRLLC.com

Expert testimony at trial or by deposition within the last 4 years

Provided expert testimony for Massachusetts Dept. of Corrections in its defense of a lawsuit brought by prisoner Katheena Soneeya, including by deposition in October 2018, and in-court testimony in 2019.

Provided expert testimony by deposition and at trial in *In the Interests of the Younger Children* (Dallas, TX), 2019.

Testified in an administrative hearing in *In the matter of Rhys & Lynn Crawford* (Washington State), March 2021.

Testified multiple times in juvenile court in *In the matter of Asha Kerwin* (Tucson, Arizona), 2021.

Provided expert testimony by deposition in *Kadel et al v. Folwell et al.* (North Carolina), 2021.

Consultancies

Massachusetts Department of Corrections—evaluation of 12 transsexual prisoners and the development of a Gender Identity Disorders Program for the state prison system. Monthly consultation with the GID treatment team since February 2009 and the GID policy committee since February 2010.

California Department of Corrections and Rehabilitation; 2012-2015; education, inmate evaluation, commentary on inmate circumstances, suggestions on future policies.

Virginia Department of Corrections –evaluation of an inmate.

New Jersey Department of Corrections—evaluation of an inmate.

Idaho Department of Corrections—workshop 2016.

Grant Support/Research Studies

TAP–studies of Apomorphine sublingual in treatment of erectile dysfunction.

Pfizer–Sertraline for premature ejaculation.

Pfizer–Viagra and depression; Viagra and female sexual dysfunction; Viagra as a treatment for SSRI-induced erectile dysfunction.

NIH- Systemic lupus erythematosis and sexuality in women.

Sihler Mental Health Foundation

a. Program for Professionals
b. Setting up of Center for Marital and Sexual Health
c. Clomipramine and Premature ejaculation
d. Follow-up study of clergy accused of sexual impropriety
e. Establishment of services for women with breast cancer

Alza–controlled study of a novel SSRI for rapid ejaculation.

Pfizer–Viagra and self-esteem.

Pfizer- double-blind placebo control studies of a compound for premature ejaculation.

Johnson & Johnson – controlled studies of Dapoxetine for rapid ejaculation.

Proctor and Gamble: multiple studies to test testosterone patch for post menopausal sexual dysfunction for women on and off estrogen replacement.

Lilly-Icos—study of Cialis for erectile dysfunction.

VIVUS – study for premenopausal women with FSAD.

Palatin Technologies- studies of bremelanotide in female sexual dysfunction—first intranasal then subcutaneous administration.

Medtap – interview validation questionnaire studies.

HRA- quantitative debriefing study for Female partners os men with premature ejaculation, Validation of a New Distress Measure for FSD.

Boehringer-Ingelheim- double blind and open label studies of a prosexual agent for hypoactive female sexual desire disorder.

Biosante- studies of testosterone gel administration for post menopausal women with HSDD.

J&J a single-blind, multi-center, in home use study to evaluate sexual enhancement effects of a product in females.

UBC-Content validity study of an electronic FSEP-R and FSDS-DAO and usability of study PRO measures in premenopausal women with FSAD, HSDD or Mixed FSAD/HSDD.

National registry trial for women with HSDD.

Endoceutics—two studies of DHEA for vaginal atrophy and dryness in post menopausal women.

Palatin—study of SQ Bremelanotide for HSDD and FSAD.

Trimel- a double-blind, placebo controlled study for women with acquired female orgasmic disorder.

S1 Biopharma- a phase 1-B non-blinded study of safety, tolerability and efficacy of Lorexys in premenopausal women with HSDD.

HRA – qualitative and cognitive interview study for men experiencing PE.

Publications

A) Books

1) Pariser SR, Levine SB, McDowell M (eds.), Clinical Sexuality, Marcel Dekker, New York, 1985

2) Sex Is Not Simple, Ohio Psychological Publishing Company, 1988; Reissued in paperback as: Solving Common Sexual Problems: Toward a Problem Free Sexual Life, Jason Aronson, Livingston, NJ. 1997

3) Sexual Life: A Clinician's Guide. Plenum Publishing Corporation. New York, 1992

4) Sexuality in Midlife. Plenum Publishing Corporation. New York, 1998

5) Editor, Clinical Sexuality. Psychiatric Clinics of North America, March, 1995.

6) Editor, (Candace Risen and Stanley Althof, associate editors) Handbook of Clinical Sexuality for Mental Health Professionals. Routledge, New York, 2003

1. 2006 SSTAR Book Award: Exceptional Merit

7) Demystifying Love: Plain Talk For The Mental Health Professional. Routledge, New York, 2006

8) Senior editor, (Candace B. Risen and Stanley E. Althof, Associate editors), Handbook of Clinical Sexuality for Mental Health Professionals, 2nd edition. Routledge, New York, 2010.

9) Barriers to Loving: A Clinician's Perspective. Routledge, New York, 2014.

10) Senior editor Candace B. Risen and Stanley E. Althof, Associate editors), Handbook of Clinical Sexuality for Mental Health Professionals. 3rd edition Routledge, New York, 2016

B) Research and Invited Papers

When his name is not listed in a citation, Dr. Levine is either the solo or the senior author.

1) Sampliner R. Parotid enlargement in Pima Indians. Annals of Internal Medicine 1970; 73:571-73

2) Confrontation and residency activism: A technique for assisting residency change: World Journal of Psychosynthesis 1974; 6: 23-26

3) Activism and confrontation: A technique to spur reform. Resident and Intern Consultant 173; 2

4) Medicine and Sexuality. Case Western Reserve Medical Alumni Bulletin 1974:37:9-11.

5) Some thoughts on the pathogenesis of premature ejaculation. J. Sex & Marital Therapy 1975; 1:326-334

6) Marital Sexual Dysfunction: Introductory Concepts. Annals of Internal Medicine 1976;84:448-453

7) Marital Sexual Dysfunction: Ejaculation Disturbances 1976; 84:575-579

8) Yost MA: Frequency of female sexual dysfunction in a gynecology clinic: An epidemiological approach. Archives of Sexual Behavior 1976;5:229-238

9) Engel IM, Resnick PJ, Levine SB: Use of programmed patients and videotape in teaching medical students to take a sexual history. Journal of Medical Education 1976;51:425-427

10) Marital Sexual Dysfunction: Erectile dysfunction. Annals of Internal Medicine 1976;85:342-350

11) Male Sexual Problems. Resident and Staff Physician 1981:2:90-5

12) Female Sexual Problems. Resident and Staff Physician 1981:3:79-92

13) How can I determine whether a recent depression in a 40 year old married man is due to organic loss of erectile function or whether the depression is the source of the dysfunction? Sexual Medicine Today 1977;1:13

14) Corradi RB, Resnick PJ Levine SB, Gold F. For chronic psychologic impotence: sex therapy or psychotherapy? I & II Roche Reports; 1977

15) Marital Sexual Dysfunction: Female dysfunctions 1977; 86:588-597

16) Current problems in the diagnosis and treatment of psychogenic impotence. Journal of Sex & Marital Therapy 1977;3:177-186

17) Resnick PJ, Engel IM. Sexuality curriculum for gynecology residents. Journal of Medical Education 1978; 53:510-15

18) Agle DP. Effectiveness of sex therapy for chronic secondary psychological impotence Journal of Sex & Marital Therapy 1978;4:235-258

19) DePalma RG, Levine SB, Feldman S. Preservation of erectile function after aortoiliac reconstruction. Archives of Surgery 1978;113-958-962

20) Conceptual suggestions for outcome research in sex therapy Journal of Sex & Marital Therapy 1981;6:102-108

21) Lothstein LM. Transsexualism or the gender dysphoria syndrome. Journal of Sex & Marital Therapy 1982; 7:85-113

22) Lothstein LM, Levine SB. Expressive psychotherapy with gender dysphoria patients Archives General Psychiatry 1981; 38:924-929

23) Stern RG Sexual function in cystic fibrosis. Chest 1982; 81:422-8

24) Shumaker R. Increasingly Ruth: Towards understanding sex reassignment surgery Archives of Sexual Behavior 1983;12:247-61

25) Psychiatric diagnosis of patients requesting sex reassignment surgery. Journal of Sex & Marital Therapy 1980; 6:164-173

26) Problem solving in sexual medicine I. British Journal of Sexual Medicine 1982;9:21-28

27) A modern perspective on nymphomania. Journal of Sex & Marital Therapy 1982;8:316-324

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