APPEAL NOS. 20-35813, 20-35815
UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

LINDSAY HECOX and JANE DOE, with her
next friends Jean Doe and John Doe,

Plaintiffs-Appellees

v.

BRADLEY LITTLE, in his official capacity as Governor of the State of Idaho; SHERRI YBARRA, in her official capacity as the Superintendent of Public Instruction of the State of Idaho and as a member of the Idaho State Board of Education; INDIVIDUAL MEMBERS OF THE STATE BOARD OF EDUCATION, in their official capacities; BOISE STATE UNIVERSITY; MARLENE TROMP, in her official capacity as President of Boise State University; INDEPENDENT SCHOOL DISTRICT OF BOISE CITY #1; COBY DENNIS, in his official capacity as Superintendent of the Independent School District of Boise City #1; INDIVIDUAL MEMBERS OF THE BOARD OF TRUSTEES OF THE INDEPENDENT SCHOOL DISTRICT OF BOISE CITY #1, in their official capacities; and INDIVIDUAL MEMBERS OF THE IDAHO CODE COMMISSION, in their official capacities,

Defendants-Appellants,

and

MADISON KENYON and MARY MARSHALL,

Intervenors-Appellants.

On Appeal from the United States District Court
for the District of Idaho
Case No. 1:20-cv-00184-DCN
Hon. David C. Nye

BRIEF OF *AMICI CURIAE* MEDICAL PROFESSIONALS SUPPORTING INTERVENORS-APPELLANTS AND URGING REVERSAL

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AUTHORITY TO FILE

This brief is authorized to be filed under Fed. R. App. P. 29(a)(2) as the Plaintiffs-Appellees, Defendants-Appellants, and Intervenors-Appellants consented to the filing.

IDENTITY AND INTEREST OF AMICI CURIAE

Amici curiae are accomplished medical professionals and scientists, well-versed in gender identity issues, who collaborate to bring sound science to the aid of those struggling with their perceived gender.[1]

Amicus curiae Miriam Grossman is board-certified in child, adolescent, and adult psychiatry. She holds an M.D. from New York University and completed an internship in pediatrics, a residency in adult psychiatry, and a fellowship in child and adolescent psychiatry. She worked at UCLA's Student Psychological Services for twelve years where she evaluated and treated students who were conflicted about

[1] Per Fed. R. App. P. 29(c)(5), no counsel for any party authored this brief in whole or in part, and no person or entity, other than *amici* and their counsel, made a monetary contribution intended to fund the preparation or submission of this brief. No Fed. R. App. P. 26.1 disclosures are required as *amici* are not incorporated.

their gender identity. Dr. Grossman subsequently provided mental health treatment for children and adolescents at the Vista Del Mar clinic in Los Angeles. There and in her private practice, she cared for patients who struggled with their identity as male or female. Dr. Grossman authored two books about the dangers of social ideology in education and health care and has lectured extensively on the topic.

Amicus curiae Michael K. Laidlaw, M.D. is board-certified in Endocrinology, Diabetes, and Metabolism. He works in private practice and is a contributing member of gdworkinggroup.org, which is an international professional work group on childhood and adolescent gender dysphoria.

Amicus curiae Quentin L. Van Meter, M.D. is a board-certified Pediatric Endocrinologist in private practice in Atlanta, Georgia, with extensive training in issues of transgender health over the past 40 years. Dr. Van Meter is currently President of the American College of Pediatricians, fellow of the Endocrine Society, and a member of the Pediatric Endocrine Society and of the Endocrine Society. He currently holds positions as Associate Clinical/Adjunct Professor of Pediatrics at

Emory University School of Medicine and the Morehouse Medical College.

Amicus curiae Andre Van Mol, M.D., is a board-certified Family Physician and Co-chair of the Committee on Adolescent Sexuality for the American College of Pediatricians and of the Sexual and Gender Identity Task Force for the Christian Medical & Dental Association. Before establishing his distinguished family practice in Northern California, he served as a U.S. Navy family practice doctor and carrier air wing flight surgeon.

Amici are actively engaged in the science on gender identity. Doctors Laidlaw, Van Meter, and Van Mol co-authored the first published letter analyzing weaknesses of the Endocrine Society gender guidelines. *See* Michael K. Laidlaw, Quentin L. Van Meter, Paul W. Hruz, Andre Van Mol, and William J. Malone, *Letter to the Editor: Endocrine Treatment of Gender-Dysphoric/Gender-Incongruent Persons: An Endocrine Society Clinical Practice Guideline*, 104 J. OF CLINICAL ENDOCRINOLOGY & METABOLISM 686-687 (2019).

Similarly, doctors Van Mol, Laidlaw, and Grossman co-authored a key letter revealing flaws in the Bränström & Pachankis study

(discussed *infra*, § I.C) resulting in correcting the article's erroneous claim that gender affirmation surgery reduced future mental health treatment. *See* Andre Van Mol, Michael K. Laidlaw, Miriam Grossman, Paul R. McHugh, *Gender-Affirmation Surgery Conclusion Lacks Evidence*, 177 AM J. PSYCHIATRY 2020 765-766 (2020).

As medical professionals, *Amici* are profoundly concerned that youth are endangered by gender affirmation policies that are unmoored from sound science. They are among many medical professionals who hold that youth who are confused about their sex are not necessarily best treated by gender-affirmation methods, which includes the effort in this case to participate in women's sports to affirm a male's subjectively perceived feminine gender identity.

Such gender-affirming treatments are foisted on health professionals and the public as the only ethical treatment for gender dysphoria, despite such treatments lacking sound scientific support and often resulting in irreversible, lifelong, and harmful impacts caused by puberty blockers, cross-sex hormones, and surgery.

Idaho enacted the Fairness in Women's Sports Act ("Fairness Act") to protect women's sports, carefully basing that law on

scientifically sound findings regarding the nature of sex. That protection for women should not be erased by infusing the competing ideology of gender identity into the law—particularly when its scientific foundations are so weak, as is revealed both in the literature and by evaluating the Plaintiffs-Appellee's' expert testimony from Dr. Turban.

ARGUMENT

When women fought for equality and the principle of nondiscrimination on the basis of sex, the United States Supreme Court based its protection for women on the objective, innate fact of humans being born male or female: "[S]ex, like race and national origin, is an immutable characteristic determined solely by the accident of birth [thus] the imposition of special disabilities upon the members of a particular sex because of their sex would seem to violate 'the basic concept of our system that legal burdens should bear some relationship to individual responsibility.'" *Frontiero v. Richardson*, 411 U.S. 677, 686 (1973) (citation omitted). *Frontiero* also instructed that "what differentiates sex from such non-suspect statuses as intelligence or physical disability, and aligns it with the recognized suspect criteria, is

that the sex characteristic frequently bears no relation to ability to perform or contribute to society." *Id*.

Frontiero supports Idaho's Fairness in Women's Sports Act because the differences in athletic ability between males and females *do* "bear a relation to the ability to perform." In contrast, there is no normative differentiation in physical abilities among the infinite number of genders (ranging from masculine to feminine to something else or no gender at all) proposed by Plaintiffs-Appellees' gender identity theory. Thus, Idaho acted correctly in basing its protection for women's sports on sex rather than supplanting sex with gender identity, as Plaintiffs-Appellees demand. Women should be able to compete against women on a level playing field—and not against males on a field tilted by gender identity theory.

I. The Idaho Fairness in Women's Sports Act correctly protects women by relying on the objectively discerned categories of male and female.

The United States Supreme Court acknowledged that the sexes should be separated in military school living facilities and could be treated differently in its physical training programs in *United States v. Virginia*, 518 U.S. 515, 533 (1996) (integrating women into a formerly

all-male military school). Idaho follows *Virginia's* reasoning with its Fairness in Women's Sports Act. Idaho Code Ann. § 33-6202. The Fairness Act applies to "[i]nterscholastic, intercollegiate, intramural, or club athletic teams or sports that are sponsored by a public primary or secondary school, a public institution of higher education, or any school or institution whose students or teams compete against a public school or institution of higher education…." *Id*. § 33-6203. Through the Fairness Act, Idaho purposed to "promote sex equality" by allowing women to compete against members of their own sex. *Id*. § 33-6202.

The Fairness Act was responding to situations where male athletes who claimed a feminine gender have sought to compete on women's teams as a means of affirming their gender. *See* Hecox Decl. ER 684 ("Being on a women's team would affirm who I am as a woman….").

At the outset, it is vital to distinguish between the quite different categories of sex and gender, because conflating sex with gender swiftly creates confusion. *Sex* is a fact of human biology. But *gender*—in its current ideological usage—is an amorphous social construct.

A. Sex is binary, objectively known, and grounded in human sexual physiology.

Sex is binary and objective, determined by one's chromosomal constitution that normatively results in clearly defined reproductive capacities. In contrast, gender is a non-binary, subjective sense of identity reflecting an adopted social role shaped by cultural forces.

Sex is more than one's primary and secondary sex characteristics: every cell in a person's body containing a nucleus will be marked with its sexual identity by its chromosomal constitution, XX or XY. Thus, sex is not "assigned" at birth but instead is fixed at conception and "declares itself anatomically in utero and is acknowledged at birth." Michelle A. Cretella, *Gender Dysphoria in Children and Suppression of Debate*, 21 J. of Am. Physicians & Surgeons 50-51 (2016).

Humans reproduce sexually, and the central basis for sex is the distinction between the reproductive roles of males and females. Lawrence S. Mayer & Paul R. McHugh, *Sexuality and Gender: Findings from the Biological, Psychological, and Social Sciences*, 50 NEW ATLANTIS 89-90 (2016). Further, the "hypothesis that gender identity is an innate, fixed property of human beings that is independent of biological sex—that a person might be 'a man trapped in a woman's

body' or 'a woman trapped in a man's body'—is not supported by scientific evidence." *Id*. 8.

In biology, an organism is male or female if it is biologically and physiologically designed to perform one of the two roles in sexual reproduction. Am. Psychiatric Ass'n, *Diagnostic & Statistical Manual of Mental Disorders* 829 ("DSM-5") (5th ed. 2013). This does not depend upon amorphous physical characteristics or social behaviors; nor does it hinge upon what an organism may subjectively perceive its gender to be.

This genetic sex coding directs the development of male or female gonads and other primary sexual traits, and the coded chromosome pairs "XY" or "XX" are present immediately upon conception. D. Bartz, T. Chitnis, U.B. Kaiser, et al. *Clinical Advances in Sex- and Gender-Informed Medicine to Improve the Health of All: A Review*, JAMA INTERN. MED. (2020).

As a child enters puberty, elevated testosterone in boys and estrogen levels in girls contribute to secondary sex characteristics such as increased height and muscle mass in boys; and for girls, breast development, menstruation, and increased body fat. Francis S.

Greenspan, David G. Gardner. *Basic and Clinical Endocrinology* 608-612 (McGraw-Hill 7th Ed. 2004); H.A. McKay, D.A. Bailey, R.L. Mirwald, K.S. Davison, R.A. Faulkner RA, *Peak bone mineral accrual and age at menarche in adolescent girls: a 6-year longitudinal study*, 133 J. PEDIATRICS 682 (1998); P.C. Sizonenko, *Human Sexual Differentiation*, GENEVA FOUNDATION FOR MEDICAL EDUCATION AND RESEARCH (2017), https://www.gfmer.ch/.

Putting this into the athletics context, the Fairness Act appropriately seeks to protect women's sports because boys and girls have roughly the same physical capabilities before puberty, but the boys race ahead after puberty. Testosterone is key: it contributes to males' advantage over women in skeletal size, lung capacity, heart size, muscle mass, hemoglobin levels, and muscle memory. Doriane Lambelet Coleman, *Sex, Sport, and Why Track and Field's New Rules on Intersex Athletes Are Essential*, N.Y. TIMES, April 30, 2018. Considering normal ranges for testosterone between men and women, male levels at their lowest are often still four times higher than a woman's highest levels of testosterone. *Testosterone*, ALLINA HEALTH (2019), https://wellness.allinahealth.org/library/content/1/3707. This means that among

athletes, “non-elite males routinely outperform the best elite females.” Doriane Lambelet Coleman, *Sex in Sport*, DUKE L. SCH. PUB. L. & LEGAL THEORY SERIES, No. 2017-20 (2017).

All of this established biological science supports the legislative findings in the Idaho Fairness in Women’s Sports Act regarding the inherent differences between men and women, per Idaho Code Ann. § 33-6202(1)-(4). As such, it provides sound grounds to sustain Idaho’s prudent effort to protect women’s sports from male competition.

B. Gender is a subjectively perceived nonbinary continuum which cannot be objectively proven.

As used by gender identity advocates, gender refers to “the socially constructed roles, behaviors, activities, and attributes that a given society considers appropriate for boys and men or girls and women,” which “influence the ways that people act, interact, and feel about themselves.” Am. Psychol. Ass’n, *Answers to Your Questions About Transgender People, Gender Identity and Gender Expression* (“APA Gender Answers”), https://bit.ly/APA_GEID_Answers (2014). An adolescent’s *gender* reflects the extent to which he or she conforms to, departs from, or simply rejects socially normative behavior for young males or females.

Although Dr. Turban speaks of gender identity as if it were binary, it is not. Rather, gender identity may be fairly described as a person falling somewhere within a subjectively discerned, malleable continuum ranging from masculine to feminine to something else:

> Other categories of transgender people include androgynous, multigendered, gender nonconforming, third gender, and two-spirit people. Exact definitions of these terms vary from person to person and may change over time but often include a sense of blending or alternating genders.

APA Gender Answers 2. Or as one leading gender advocate put it, "[g]ender identity can be conceptualized as a continuum, a mobius, or patchwork." Randi Ettner, et al., *Principles of Transgender Medicine and Surgery* 43 (Routledge 2nd ed. 2016) (internal citations omitted). Calling gender a "mobius" is curious indeed. It leaves one wondering how a person might pick two genders on a continuous, single-sided loop of an infinite number of genders, then define one gender as "male" and the other as "female."

In short, gender is malleable with no fixed, objective definition for what it means to behave like a boy or a girl. For example, whether men should wear earrings has seesawed back and forth at least since King

Tut's time. Robert Traynor, *The Culture of Earrings for Men*, HEARING HEALTH & TECH. MATTERS (Feb. 9, 2016), https://bit.ly/Men_earrings.

Not only does the idea of what gender-typical behavior is for boys or girls change over time and across cultures, but children change as well. A tomboy girl may gravitate toward dolls and dresses as she ages, while a boy who might play "house" with dolls may later seek out rugged adventure sports or hunting.

So, "gender is neither the causal result of sex nor as seemingly fixed as sex," but rather is "a free-floating artifice, with the consequence that *man* and *masculine* might just as easily signify a female body as a male one, and *woman* and *feminine* a male body as easily as a female one"). Judith Butler, *Gender Trouble: Feminism and the Subversion of Identity* 10 (Routledge 1st Ed. 1990).

Idaho properly recognized and protects sex as the objective fact of human biology. It is entirely appropriate to ground the regulation of women's sports in sex to preserve woman versus woman competition. Forcing gender identity into the law is not a gloss but would instead supplant sex and thus erase women as a class.

II. The first challenge for gender identity advocates is whether gender affirmation serves the prime directive of medicine: First, do no harm.

> The physician must be able to tell the antecedents, know the present, and foretell the future—must mediate these things, and have two special objects in view with regard to disease, namely, to do good or to do no harm.

Hippocrates, *Of the Epidemics*, INTERNET CLASSICS ARCHIVE, https://bit.ly/MedPrimeDirective.

This mandate to do no harm motivates *amici* to question the proposition that gender dysphoric youth suffer dire consequences—even dying by their own hands—unless their puberty is blocked at the first intimation of onset and they are set on a course of gender affirmation.

And that is a very important question, because the gender identity "field suffers from a vexing problem: There are no randomized controlled trials (RCT) of different treatment approaches, so the front-line clinician has to rely on lower-order levels of evidence in deciding on what the optimal approach to treatment might be." Kenneth J. Zucker, *Debate: Different strokes for different folks*, 25 CHILD ADOLESC. MENT. HEALTH, 36-37 (2020), *accord,* Paul W. Hruz*, Deficiencies in Scientific Evidence for Medical Management of Gender Dysphoria*, 87 THE

LINACRE QUARTERLY*,* 34–42 (2019) (cataloging shortcomings in gender identity research).

The scientific weaknesses underlying the broad and potentially dangerous policies promoted by gender identity advocates are evident in the literature as well as Dr. Turban's flawed testimony. We turn now to examine those flaws.

A. The flaws in Dr. Turban's *Recalled Exposure to Gender Identity Conversion Efforts and Psychological Distress and Suicide Attempts Among Transgender Adults* article undercut his claim that gender affirmation is the sole ethical response to gender dysphoria.

Dr. Turban states that "if a transgender child's gender identity is not supported, and professionals attempt to make them cisgender, they have a higher likelihood of attempting suicide." Turban Decl. ER 253 (citing J.L. Turban, N. Beckwith, S. L. Reisner, & A. S. Keuroghlian, *Association between recalled exposure to gender identity conversion efforts and psychological distress and suicide attempts among transgender adults*, 77 JAMA PSYCHIATRY, 68-76 (2020)). But the *Recalled Exposure* article is too flawed to support that dogmatic claim.

First, it relied upon inherently skewed data drawn from the 2015 U.S. Transgender Study.[2] That study was an online convenience sampling of transgender-identified and genderqueer adults from trans-affirming websites. Such retrospective studies depend heavily upon the participants' unreliable memories, and "you cannot make statistical generalizations from research that relies on convenience sampling." *Handbook of Survey Methodology for the Social Sciences*, (Lior Gideon, ed. Springer 2012).

Several prominent scientists recently challenged *Recalled Exposure's* "problematic analysis" and "flawed conclusions" by which it advanced "the misguided notion that anything other than 'affirmative' psychotherapy for gender dysphoria (GD) is harmful and should be banned." R. D'Angelo, et al*., One Size Does Not Fit All: In Support of Psychotherapy for Gender Dysphoria*, ARCH. SEX BEHAV. (2020). Elaborating on why the 2015 U.S. Transgender Survey data is seriously skewed, they noted that survey participants "were recruited through transgender advocacy organizations and subjects were asked to 'pledge'

[2] S.E. James, J.L. Herman, S. Rankin, M. Keisling, L. Mottet, & M. Anafi, *The Report of the 2015 U.S. Transgender Survey* (2016), https://bit.ly/2015TransgenderSurvey.

to promote the survey among friends and family. This recruiting method yielded a large but highly skewed sample." *Id.*

This means that the 2015 survey sample was replete with "data irregularities." Nearly 40% of the survey participants had not transitioned medically or socially, and a significant number reported that they did not plan any future transition. Numerous respondents claimed that puberty blockers were begun *after* they turned 18 years old, which is highly improbable. And the survey results had to be specially weighted due to an unusually high proportion of respondents who reported their age as exactly 18 years. *Id.*

Moreover, *Recalled Exposure's* baseline question of whether exposure to gender identity conversion efforts was harmful to mental health cannot serve as a valid measure of gender conversion therapy for many reasons: it conflated interactions with mental health practitioners with interactions involving counselors, religious advisors, and other professionals; it did not distinguish between voluntary or coerced encounters; it did not differentiate between diagnostic encounters (where the question of aligning with sex may well be asked) versus specific therapeutic interventions; there was no information as to

whether gender dysphoria was the focus of the supposed conversion session or secondary to other health issues; and it did not determine whether unethical actions were taken during the supposed conversion session. *Supra,* D'Angelo.

More broadly, the "conversion" question is flawed because its raw binary division of gender affirming treatments is a "blunt classification [that] overlooks a wide range of ethical and essential forms of agenda-free psychotherapy that do not fit into such a binary; at worst, it effectively mis-categorizes ethical psychotherapies that do not fit the 'affirmation' descriptor as conversion therapies." *Id*. And stigmatizing all non-affirming psychotherapy for gender dysphoria risks reducing "access to treatment alternatives for patients seeking non-biomedical solutions to their distress." *Id*.

Most remarkably, in proposing that gender identity conversion efforts ("GICE") result in poor mental health and suicide attempts, *Recalled Exposure* failed "to control for the individual's pre-GICE-exposure mental health status." *Id*. This is crucial, as a patient may present with comorbidities that would readily merit conventional psychotherapy—what Dr. Turban would characterize as "non-affirming"

treatment. Then, if such a patient would attempt suicide, *Recalled Exposure* would assume that the attempt was due to "conversion therapy" even if appropriately treating a comorbid condition (unrelated to gender dysphoria) was the true cause of the attempt. *Id*.

"In fact," the *One Size* authors conclude, "failure to control for the subjects' baseline mental health makes it impossible to determine whether the mental health or the suicidality of subjects worsened, stayed the same, or potentially even improved after the non-affirming encounter." *Id*.

Accordingly, "[g]iven the high rate of co-occurring mental illness in transgender-identifying patients, failure to control for prior mental health status is a serious methodological flaw." *Id*. (citation omitted).

Meanwhile, Dr. Turban made "sweeping, emotive claims on several highly visible national media platforms" while the serious scientific debate about his claims "was not allowed to occur." *Id*. And he stoked emotions by using the provocative, pejorative, and ill-defined term, "conversion efforts," to paint any non-gender affirming treatment as coercive and aversive efforts rather than voluntary, conventional psychotherapy manifest through conversations with the patient.

Injecting the phrase in the current debate is very questionable, given that coercive and aversive treatments had faded from psychotherapy back in the 1970s. *Report of the American Psychological Association Task Force on Appropriate Therapeutic Responses to Sexual Orientation*, Am. Psych. Ass'n 22 (2009), https://www.apa.org/pi/lgbt/resources/therapeutic-response.pdf. And even were that not so, the phrase would never have applied to *amici*, none of whom ever practiced or commended such coercive, discredited techniques.

Ultimately, *Recalled Exposure* exemplifies the classic error of mistaking correlation for causation. Dr. Turban argues that his "results support policy statements from several professional organizations that have discouraged this [GICE] practice," but as the *One Size* authors point out, "[p]resenting a highly confounded association as causation is a serious error, given its potential to dangerously misinform and mislead clinicians, policymakers, and the public at large about this important issue." *Id*.

This confounded study is neither scientifically or medically sound and offers no evidence to justify striking down Idaho's legitimate sex-based protections for female athletes.

B. Dr. Turban's flawed *Pubertal Suppression for Transgender Youth and Risk of Suicidal Ideation* article cannot establish causation between pubertal blockade and decreased suicidality

Dr. Turban argues from this recently published article that suppressing the normal onset of puberty in transgender youth is beneficial in preventing suicide. Turban Decl. ER 230, 233 (citing Jack L. Turban, Dana King, Jeremi M. Carswell and Alex S. Keuroghlian, *Pubertal Suppression for Transgender Youth and Risk of Suicidal Ideation*, 145 PEDIATRICS (2020)). But the study design is cross-sectional, and such a study design cannot establish a causal relationship between pubertal blockade and suicidality. *Supra,* Gideon.

Dr. Turban also failed to acknowledge that those who received puberty blockade *and* those who did not had alarmingly high rates of suicidal ideation (50% or higher) within the last year, rates strikingly similar to those previously reported for transgender adults as reported in Noah Adams, Maaya Hitomi, and Cherie Moody, *Varied Reports of Adult Suicidality: Synthesizing and Describing the Peer-Reviewed and Gray Literature*, 2 TRANSGENDER HEALTH, 69 Fig. 2 (2017) (reporting suicide ideation for trans-identified adults at 51.7% for males and 45.4% for female).

Importantly, Dr. Turban failed to consider the study's data regarding the more robust measure of suicide risk: what happens when a person has the idea *and* plans suicide? For that factor, there was no significant difference between the study groups. Furthermore, those who received puberty blockers were hospitalized at higher rates for suicide attempts than those who did not receive that medication.

One plausible explanation of that is that suicide risk may be driven more by co-occurring psychological issues than from gender dysphoria itself—a glaring omission, when 96% of U.S. adolescents attempting suicide demonstrate at least one mental illness. Matthew K. Nock, Jennifer Greif Green, Irving Hwang, et al., *Prevalence, correlates, and treatment of lifetime suicidal behavior among adolescents: results from the National Comorbidity Survey Replication Adolescent Supplement*, 70 JAMA PSYCHIATRY, 300-310 (2013). But even more concerning, when puberty blockers are used to treat central precocious puberty, there is evidence of increased depression and "rare reports of suicidal ideation and attempt…." *Lupron Highlights of Prescribing Information*, (2020), https://bit.ly/LupronRxGuide. This suggests that

there is a risk that puberty blockers may have a causal role in suicidality.

Further, since gender dysphoria experienced by these patients is influenced by a myriad of factors, it is misleading to base conclusions about the benefit of receiving puberty blockers on any univariate analysis. And notably, all but one of the univariate results were non-significant when controlling for but a few background factors. While the odds ratio for lifetime suicidality remains significant, it is such a weak correlation that it is an unjustifiable stretch to conclude, or even suggest, that pubertal blockade for gender dysphoric youth, is a lifesaving intervention.[3]

Moreover, the observed outcomes for young adults who experience a sex-discordant gender identity provoke serious concerns about the long-term efficacy of puberty blockade. *See* Riittakerttu Kaltiala, Elias Heino, Marja Työläjärvi & Laura Suomalainen, *Adolescent development and psychosocial functioning after starting cross-sex hormones for gender dysphoria*, 74 Nordic J. of Psychiatry 213-219 (2020) (concluding

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[3] The Pearson correlation is surprisingly small, $< .08$, yielding a very small effect size (Cohen's $d < .20$) and does not assess current or future suicide risk.

that "[m]edical gender reassignment is not enough to improve functioning and relieve psychiatric comorbidities among adolescents with gender dysphoria. Appropriate interventions are warranted for psychiatric comorbidities and problems in adolescent development.").

Yet there is one thing that puberty blockade seems almost 100% effective in doing: ensuring that a pre-pubertal child confused about his or her sex ultimately pursues drug-induced and surgical gender affirming treatments. Despite the very strong evidence that the vast majority of children identifying as transgender will align with their sex after puberty, in a study of 70 children who were subjected to puberty blockade, *every one* proceeded to cross-sex hormone treatments—the first step toward full "gender reassignment." Annelou L. C. de Vries, Thomas D Steensma, Theo A. H. Doreleijers, Peggy T. Cohen-Kettenis, *Puberty suppression in adolescents with gender identity disorder: a prospective follow-up study*, 8 J. SEX MED. 2276-2283 (2011).

More recent studies confirm that once patients are on puberty blockers, they rarely stop the treatment. *See* C.M. Wiepjes, N.M. Nota, C.J.M. de Blok, et al. *The Amsterdam cohort of gender dysphoria study (1972-2015): trends in prevalence, treatment, and regrets*, 15 J. SEX

MED., 582–590 (2018) (finding 1.9% terminated use) and Tessa Brik, Lieke J.J.J. Vrouenraets, Marine C. de Vries, Sabine E. Hannema, *Trajectories of adolescents treated with gonadotropin releasing hormone analogues for gender dysphoria*, 49 ARCH SEX BEHAV. 2611–2618 (2020), (finding 3.5% termination of use).

Given that through puberty, 61 to 98 percent of children *desist* from their discordant gender identity and realign with their sex, (per Jiska Ristori & Thomas D. Steensma, *Gender dysphoria in childhood*, INT'L REV. OF PSYCHIATRY 3 (2016)), the 100 percent *persistence* of gender identity reported by Devries, *supra* strongly suggests that a number of the patients were driven toward persisting in a sex-discordant gender identity when they otherwise would have aligned with their sex. In other words, puberty blockers artificially select persistence over likely natural desistance. They are like gateway drugs committing a dysphoric child to cross-sex hormones and gender-affirming/sex-reassignment surgery.

Fortunately, Dr. Turban's presumptive and premature puberty blocking model is not today's medical consensus. Instead, "almost all clinics and professional associations in the world use what's called

the *watchful waiting* approach to helping GD children…." James M. Cantor, *American Academy of Pediatrics policy and trans- kids: Fact-checking*, (2019), PEDIATRIC AND ADOLESCENT GENDER DYSPHORIA WORKING GROUP, http://gdworkinggroup.org/2018/10/18/american-academy-of-pediatrics-policy-and-trans-kids-fact-checking/. As Dr. Cantor concludes, it was the puberty-blocking American Academy of Pediatrics policy "which fall[s] 'outside the mainstream of traditional medical practice.'" *Id.*

Even the Endocrine Society Guidelines (which support gender-affirming approaches) nonetheless urge caution: "The guidelines should not be considered inclusive of all proper approaches or methods, or exclusive of others. The guidelines cannot guarantee any specific outcome, nor do they establish a standard of care." Wylie C. Hembree, et al. *Endocrine Treatment of Gender-Dysphoric/Gender-Incongruent Persons: An Endocrine Society Clinical Practice Guideline*, 102 J. OF CLINICAL ENDOCRINOLOGY & METABOLISM, 3869, 3895 (2017).

The lower court dismissed the Intervenors-Appellants' expert witness Dr. Levine, who urged watchful waiting as a prudent approach, deeming him to be an "outlier in the field of gender dysphoria," Mem.

Dec. and Order ER 065 n.33. But this Court should reject that assessment. Dr. Levine's "watchful waiting" approach aligns with numerous widely accepted protocols, including the very influential Dutch Protocol, discussed *infra*.

In light of this, this Court should uphold Idaho's effort to ensure fairness in women's sports which is firmly grounded in sex. The Court should not force Idaho to align with unsettled gender identity science, particularly when the result would be rolling back the long sought, hard fought legal victories which protect women as a distinct class of females.

C. The study Dr. Turban relied upon to claim that gender affirmation surgery leads to improved mental health outcomes was wrong: it withdrew the claim after swift, incisive criticism.

Dr. Turban attempts to rebut Dr. Levine's views on the efficacy of gender affirmation treatments, relying heavily on R. Bränström, & J.E. Pachankis, *Reduction in mental health treatment utilization among transgender individuals after gender-affirming surgeries: a total population study*, AM. J. OF PSYCHIATRY 727-734 (2019). Arguing that "[m]ore recent studies than those cited by Dr. Levine show significantly improved outcomes for patients who undergo gender-affirming surgery when such surgery is medically indicated," Turban Decl. ER 233, he

said that the *Reduction* study "found a reduction in mental health treatment needs among transgender people following gender-affirming surgery." *Id.* ER 259-260.

But the *Reduction* study was decisively criticized upon publication for its conclusion that there was "a statistically significant relationship between time since surgery and mental health status" based upon the researchers observing "that as of 2015, patients who had surgeries further in the past had better mental health than patients whose surgeries were more recent." *Correction of a Key Study: No Evidence of "Gender-Affirming" Surgeries Improving Mental Health*, Society for Evidence Based Gender Medicine (Aug. 30, 2020), https://www.segm.org/ajp_correction_2020 (citing and summarizing eight professional critiques of the *Reduction* article, including the one co-authored by three *amici. See* Van Mol, et al., s*upra*; *see also,* Richard Bränström and John E. Pachankis, *Toward Rigorous Methodologies for Strengthening Causal Inference in the Association Between Gender-Affirming Care and Transgender Individuals' Mental Health: Response to Letters*, 177 Am. J. of Psychiatry 769-772 (2020) (acknowledging role of three amici's letter in correcting article).

This criticism led to the article being corrected to reject the originally claimed statistically significant relationship between gender affirmation surgery and later-improved mental health (while leaving intact a finding of "no evidence of benefits of hormonal treatments"). *Id.*

Specifically, "the results [of the reanalysis] demonstrated no advantage of surgery in relation to subsequent mood or anxiety disorder-related health care visits or prescriptions or hospitalizations following suicide attempts." *Correction to Bränström and Pachankis*, 177 AM. J. OF PSYCHIATRY, 727-734 (2020).[4]

The scientific debate that led to correcting the article is most pertinent here. But for many "outliers" who were willing to publicly challenge weak science, the uncorrected article would have given false hope of better mental health to severely troubled souls, encouraging them to pursue surgery that remains unproven in safety or effectiveness in the long term.

[4] Available at https://doi.org/10.1176/appi.ajp.2020.1778correction.

D. Dr. Turban's views are further weakened by incorrectly arguing that the Dutch Protocol does not support "watchful waiting" for transgender identified youth.

Dr. Turban points to the "approach developed by the VUMC Center for Expertise in Gender Dysphoria in Amsterdam" (commonly, "Dutch Protocol"), saying that it does not support Dr. Levine's "'watchful waiting' approach to the treatment of transgender youth." Turban Decl. ER 257.

But Dr. Turban's statement contradicts the Dutch Protocol which is of "proverbial" stature, as thoroughly described in A.L de Vries, P.T. Cohen-Kettenis, *Clinical Management of Gender Dysphoria in Children and Adolescents: The Dutch Approach*, 59 J. HOMOSEX. 301-320 (2012).

Dr. Turban contradicts the protocol in important ways. He says that physical interventions are started at the "earliest states of puberty," and that "'watchful waiting' is not considered an ethical model of treatment for a young person once puberty has begun in the U.S. or elsewhere." Turban Decl. ER 257. And he further alleges that the Dutch clinic "does not advocate for 'watchful waiting' once transgender adolescents reach the earliest stages of puberty (i.e. Tanner 2)." *Id.* Instead, Dr. Turban claims that the Dutch "recommend affirmation of

the adolescent's gender identity" which entails using "pubertal suppression and gender-affirming hormones…." *Id.*

But what Dr. Turban states is not what the Dutch Protocol requires. Instead, it sets the physical treatment age limit at 12 years "because some cognitive and emotional maturation is desirable when starting these physical medical interventions." *Dutch Approach, supra* at 311. Twelve years is also the age at which the youth may give partial consent to such significant medical interventions under Dutch law. *Id.*

Additionally, the Dutch protocol describes a period of psychological interventions and counseling of both patient and parents before administering puberty blockers—a process which may take more than one and a half years. *Id.* 311-312.

Nor does the Dutch Protocol contemplate blocking puberty at the first signs of its onset. To clear this up, we touch briefly on the Tanner stages of puberty: Stage 1 is before puberty; Stage 5 is completed puberty; and Stages 2-4 reflect the beginning through intermediary stages of sexual developmental. In the United States, girls may begin puberty (Tanner 2) as young as 8 years old. *When is Puberty Too Early?*, DUKE HEALTH (2020) https://bit.ly/DukeHealth_Puberty.

Because the Dutch Protocol recognizes the desirability for "some cognitive and emotional maturation" before starting hormonal treatments, it instructs that no physical treatments be started before age 12, meaning that a girl could be some four years into puberty before cross-sex hormone treatments would be permitted.

Even more to the point, "[a]t the Amsterdam gender identity clinic, the clinical approach to prepubertal children under the age of 12 is different from the approach to adolescents starting at age 12. In children, the diagnosis is focused on elucidating all possible factors that could play a role in gender dysphoria, but the gender dysphoria itself is not actively dealt with in treatment." *Dutch Approach, supra* at 315. Instead, the Dutch make the "general recommendation . . . not to have transitioning take place too early, *but to carefully observe how the gender dysphoria develops in the first stages of puberty*." *Id.* (emphasis added).

In plain terms, contra Dr. Turban, the Dutch Protocol recommends watchful waiting of the youth until age 12—which most likely is well after the onset of puberty—to discern whether the gender dysphoria will dissipate without further treatment.

Dr. Turban also cites to A.L. De Vries, J.K. McGuire, T.D. Steensma, E.C. Wagenaar, T.A. Doreleijers, & P.T. Cohen-Kettenis, *Young adult psychological outcome after puberty suppression and gender reassignment*, 134 PEDIATRICS, 696-704 (2014) to support his argument for using puberty blockers at "the earliest stages of puberty." Turban Decl. ER 257. But the 55 adolescents who were placed on puberty blockers in that study began their pubertal blockade at an average age of 14.8 years. *Id.* Table 1.

That means that for girls, puberty could have been proceeding for several years before initiating puberty blockers, so the study says little as to the effect of beginning puberty blockade at the very earliest sign of puberty's onset.

Dr. Turban also claims that it is unethical worldwide to not physically intervene at the beginning of puberty (Tanner 2) for a gender confused child. Turban Decl. ER 257-58. But again, the Dutch protocol looks at this very differently, saying that "when the problems are destabilizing and there is an insufficient guarantee that the youth is committed to the therapeutic relationship necessary for a physical medical intervention, the treatment will be postponed." *Dutch*

Approach, supra at 312. Again, the Dutch Protocol uses watchful waiting and varied approaches to treatment rather than Dr. Turban's presumptive administration of puberty blockers at the very earliest sign of puberty.

Furthermore, the Dutch Protocol states that "[a]dolescents are considered eligible for puberty suppression when they are diagnosed with GID, live in a supportive environment and have no serious psychosocial problems interfering with the diagnostic assessment or treatment." *Dutch Approach, supra* at 310. Thus, initiating puberty blockers may be delayed while investigating whether that supportive network exists.

In sum, the Dutch Protocol aligns with the views of Dr. Cantor and Dr. Zucker, as well as the Endocrine Society Guidelines discussed *supra,* by allowing for important delays and recommending—often over a period of years and well into puberty. The objective is to await a time when the patients "have no serious psychosocial problems interfering with the diagnostic assessment or treatment." *Id.* 310. This is scarcely an unethical or "outlier" approach to the challenges of gender dysphoria.

This review of Dr. Turban's testimony reveals two things: first, the underlying gender identity research is often of poor quality. The 2015 U.S. Transgender Survey exemplifies this: it was poorly designed resulting in poor data that led to poor interpretations in follow-on articles. And as detailed above, Dr. Turban's interpretations of this weak science are themselves flawed. In respect to the Fairness Act, such doubly-weak science should not justify setting aside the simple fairness of ensuring that women may compete against other women in women's sports.

In contrast to the weak basis and interpretation of gender identity science, the Fairness Act relies on the objective fact of sex and the normative differences in physical ability between the two sexes to ensure that women athletes could compete against women when playing women's sports.

Although women's rights and gender identity theory may often coexist in daily life, they collide in this case. As the parties recognized by bringing forward their experts, science bears on how best to parse the competing interests. As demonstrated above, gender identity science at this stage is weak at best, while the science of sex is solid and

undergirds the key Supreme Court precedents that protect women as a class. To the extent that science informs the outcome here, the decision should go in favor of Idaho's Fairness Act.

Idaho should be able to rely upon sex categories, just as *Virginia* did in providing for separate women's living facilities and modifying physical training requirements. By relying on those fixed sex categories, women athletes will continue to enjoy fair competition against other women.

But that cannot happen if the objective fact of sex is supplanted by gender perceptions and males gain access to women's sports. This Court should follow the law of *Frontiero* and *Virginia* and the sound science of sex and reverse the lower court to allow Idaho to protect its female athletes.

III. Intersex conditions are objectively diagnosed, rare disorders of sexual development that are unrelated to the Plaintiffs-Appellees' demand to access women's sports based on subjectively perceived gender identity.

The Plaintiffs-Appellees—neither of whom are intersex individuals—muddy this case by arguing about how to deal with intersex athletes. *Amici* acknowledge that exceedingly rare congenital abnormalities exist in which phenotypic sex characteristics are not

what is expected from the genotype. J.M. Beale, S.M. Creighton, *Long-term health issues related to disorders or differences in sex development/intersex,* 94 MATURITAS 143-148 (2016). Such conditions are established at conception for the 0.2% of people who have them. L. Sax, *How common is intersex*, *a response to Anne Fausto-Sterling*, 39 J. OF SEX RESEARCH, 174-178 (2002).

These disorders of sex development are of a diverse nature but usually manifest with physical disorders impairing fertility. J. Słowikowska-Hilczer, A.L. Hirschberg, H. Claahsen-van der Grinten, et al., *Fertility outcome and information on fertility issues in individuals with different forms of disorders of sex development: findings from the dsd-LIFE study*, 108 FERTIL STERIL. 822-831 (2017). Treatment (including non-intervention) of these disorders differs categorically from transgender interventions which are performed on persons with no inherent defect in sex organ development, function, or fertility.

Such biological anomalies do not alter the fact of there being only two sexes, male and female, that are ordered to the purpose of reproduction. *DSM-5*, *supra* at 829. Conversely, in the trans-identified, there is no inherent defect in sex organ development, function, or

fertility. Nor do intersex patients commonly identify as transgender. In a study of the most prevalent intersex condition among women, Congenital Adrenal Hyperplasia, "the vast majority of affected children with CAH historically did not experience self-perceived transgender identity or gender dysphoria. Kenneth J. Zucker, Susan J. Bradley, Gillian Oliver, Jennifer Blake, Susan Fleming, Jane Hood, *Psychosexual Development of Women with Congenital Adrenal Hyperplasia*, 30 HORMONES AND BEHAVIOR 300–318 (1996).[5]

In respect to women's athletics, intersex conditions—which are objectively diagnosed, well-researched, and have mature treatment protocols—present a very different question than does gender identity theory under which a post-pubertal male may demand access to a women's team as a means of affirming his felt feminine gender identity. *See* Hecox Decl. ER 684 ("Being on a women's team would affirm who I am as a woman…."). The intersex issue may be relevant to women's sports, but it has no bearing on the gender identity issues in this case.

[5] Although most prevalent, it remains rare, affecting 1 in 10,00 to 15,000 people. *Congenital Adrenal Hyperplasia*¸ NAT'L ORG. FOR RARE DISORDERS (2018), https://bit.ly/RareDisorders_CAH

Conclusion

In much of everyday life it is irrelevant whether one is male or female, or if a male or female trans-identifies. As the *Frontiero* Court put it, such characteristics "frequently bear[] no relation to ability to perform or contribute to society." 411 U.S. at 686 (citation omitted).

But sometimes sex matters: that is why the *Virginia* Court acknowledged that separate living quarters were needed for women, and physical training requirements could be altered for them—even though some women might be able to meet male training standards.

Indeed, this case fits exactly into the "ability" aspect, where sex *is* highly correlated to athletic performance. Because of that, *Virginia* and *Frontiero* provide sound precedent to preserve sex classifications in women's sports through the Fairness in Women's Sports Act, and this Court should reverse the lower court's decision.

Date: November 19, 2020 Respectfully submitted,

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CERTIFICATE OF COMPLIANCE

Pursuant to Fed. R. App. P. 29(a)(5), this amicus curiae brief may not exceed 7,000 words, or one-half the length of a party's brief. Per Fed. R. App. P. 32(g), the undersigned certifies that this brief complies with the type-volume limitations of Fed. R. App. P. 32(a)(7)(B). Exclusive of the sections exempted by Fed. R. App. P. 32(f), the brief contains 6,967 words, according to the word count feature of Microsoft Word 2010 that was used to prepare the brief. The brief uses proportionately spaced Century Schoolbook 14 point typeface.

/s/ Gary S. McCaleb
Gary S. McCaleb

CERTIFICATE OF SERVICE

I hereby certify that I electronically filed the foregoing Opening Brief with the Clerk of the Court for the United States Court of Appeals for the Ninth Circuit using the Appellate CM/ECF system on November 19, 2020. I certify that all participants in the case are registered CM/ECF users and that service will be accomplished by the Appellate CM/ECF system.

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