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IN THE UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF CALIFORNIA

AURORA REGINO,

Plaintiff,

vs.

SUPERINTENDENT KELLY STALEY, in her official capacity; CAITLYN DALBY, in her official capacity; REBECCA KONKIN, in her official capacity; TOM LANDO, in his official capacity; EILEEN ROBINSON, in her official capacity; and MATT TENNIS, in his official capacity,

Defendants.

Case No.: 2:23-cv-00032-JAM-DMC

REQUEST FOR JUDICIAL NOTICE IN SUPPORT OF PLAINTIFF'S CONDITIONAL REPLY TO GSA OPPOSITION TO MOTION FOR PRELIMINARY INJUNCTION

Date: February 28, 2023
Time: 1:30 p.m.
Courtroom: 6, 14th Floor
Judge: Hon. John A. Mendez

Complaint Filed: January 6, 2023
Trial Date: Not Yet Set

Plaintiff Aurora Regino hereby requests, pursuant to Rule 201 of the Federal Rules of Evidence, that the Court take judicial notice of the following items in connection with Plaintiff's Conditional Reply in Opposition to Proposed Intervenor Gender & Sexualities Alliances Network's Proposed Opposition to Plaintiff's Motion for Preliminary Injunction, (Dkt. No. 22-2), and Proposed Declaration of Proposed Expert Dr. Jack Turban (Dkt. No. 22-3).

Judicial notice is proper for any facts that "can be accurately and readily determined from sources who accuracy cannot reasonably be questioned." Fed. R. Evid. 201(b)(2). The Court "must take judicial notice if a party requests it and the court is supplied with the necessary information." Fed. R. Evid. 201(c)(2). Courts regularly take judicial notice of "undisputed matters of public records." *Harris v. Cty. Of Orange*, 682 F.3d 1126, 1131-32 (9th Cir. 2012) (internal citations omitted); *Lee v. City of Los Angeles*, 250 F.3d 668, 688-89 (9th Cir. 2001). Information made publicly available by government entities, including data, is also subject to judicial notice. *See Daniels-Hall v. Nat'l Educ. Ass'n*, 629 F.3d 992, 998-99 (9th Cir. 2010); *Teixeira v. Cty of Alameda*, 873 F.3d 670, 676 n. 6 (9th Cir. 2017).

The Court should take notice of the following materials:

1. Exhibit A: Brief of amici medical associations—including the American Medical Association, the American Academy of Pediatrics, the American Association of Child & Adolescent Psychiatry, the Endocrine Society, WPATH, and the Pediatric Endocrine Society—filed in *Adams by & through Kasper v. Sch. Bd. of St. Johns Cnty.*, 57 F.4th 791 (11th Cir. 2022). Plaintiff requests the Court take judicial notice of the fact that these organizations jointly submitted this brief and take judicial notice of the arguments made therein for the sole purpose that these organizations endorse them. Among the opinions expressed by these associations is that "[t]he recommended *treatment* for transgender people with gender dysphoria includes assessment,

counseling, and, as appropriate, *social transition.*" (*Id.* at 12 (emphasis added.)

2. Exhibit B: Excerpts from the World Professional Association for Transgender Health Version 8 Guidelines - E. Coleman, *et al.*, *Standards of Care for the Health of Transgender and Gender Diverse People*, Version 8, Int'l J. of Transgender Health (Sept. 15, 2022) ("WPATH 2022") at S107. Plaintiff requests the Court take judicial notice of the fact that, among other things relevant here, the WPATH Version 8 Guidelines recognize social transitioning a potentially powerful and effective form of treatment because it reduces "gender dysphoria/incongruence, depression, anxiety, self-harm ideation and behavior, suicidal ideation and attempts," (WPATH 2022 at S107); that the guidelines recognize "[s]ocial transition in prepubescent children consists of a variety of choices, can occur as a process over time, is individualized based on both a child's wishes and other psychosocial considerations . . . and is a decision for which possible benefits and challenges should be weighted and discussed," (*id.* at S77); that the guidelines state social transitioning "is likely to serve a child's well-being when it takes place thoughtfully and individually for each child," (*id.*); that the guidelines recognize "it is extremely helpful for parents/guardians to participate . . . in the psychotherapy process involving prepubescent children as family factors are often central to a child's well-being," (*id.* at s73); that the guidelines "recommend[s that] health care professionals discuss the potential benefits and risks of a social transition with families who are considering it," (*id.*); and that the guidelines recommended any expert "working with gender diverse children . . . have expertise in gender development and gender diversity in children and possess a general knowledge of gender diversity across the life span." (*Id.* at S69.)

3. Exhibit C: A book chapter co-authored by proposed intervenor GSA's proposed expert Dr. Jack Turban. *See* Turban, J.L., *et al.*, *Gender Incongruence & Gender Dysphoria,* Ch.

5.4 (2018). Plaintiff requests the Court take judicial notice of the fact that Dr. Turban and his co-authors argue children "who express a desire to socially transition" should only do so "after careful counseling," and that the proper standard of care for social transition must include an "open discussion with the child highlighting that . . . the patient is free to transition back at any time." (*Id.*)

4. Exhibit D: Excerpts from the Endocrine Society's Latest Guidelines for transgender health - Hembree, W. C., et al., *Endocrine treatment of gender-dysphoric/gender-incongruent persons: an endocrine society clinical practice guideline, the Journal of Clinical Endocrinology & Metabolism*, (2017). Plaintiff requests the Court take judicial notice of the fact that the Endocrine Society guidelines recommend "that decisions regarding the social transition of prepubertal youths with GD/gender incongruence are made with the assistance of an MHP or another experienced professional." (*Id.* at 3870.) This is because "it is important that mental health care is available before, during, and sometimes also after transitioning." (*Id.* at 3876.) "For children and adolescents, an MHP who has training/experience in child and adolescent gender development (as well as child and adolescent psychopathology) should make the diagnosis, because assessing GD/gender incongruence in children and adolescents is often extremely complex." (*Id.*)

5. Exhibit E: Article by Proposed Intervenor GSA's proposed expert Jack Turban – Turban, J. L., et al., *Timing of social transition for transgender and gender diverse youth, K-12 harassment, and adult mental health outcomes*, Journal of Adolescent Health, (2021). Plaintiff respectfully requests the Court take judicial notice of the fact that in this article, Dr. Turban asserts "Social transition *after the onset of puberty* (i.e., during adolescence or adulthood) has been somewhat less controversial in medical and mental health guidelines than childhood social transition, albeit often controversial in communities." (*Id.* at 2 (emphasis added).)

6. Exhibit F: Tweet from Proposed Intervenor GSA's proposed expert Jack Turban from his verified account at Twitter.com. Tweet from Jack Turban, @Jack_Turban (Apr. 20, 2022, at 11:57 AM). Plaintiff respectfully requests the Court take judicial notice of the fact that, in this Tweet, Dr. Turban asserts that gender-affirming care decisions "should be made by doctors and families, not politicians who hold no expertise in this area," (*Id.*), and that "we should follow the Endocrine Society Guidelines, not political nonsense." (*Id.*)

7. Exhibit G: Essay written by Proposed Intervenor GSA's proposed expert Jack Turban - *It's okay to let your transgender kid transition – even if they might change their mind in the future*, Vox (Oct. 22, 2018), https://www.vox.com/2018/10/22/18009020/transgender-children-teens-transition-detransition-puberty-blocking-medication. Plaintiff respectfully requests the Court take judicial notice of the fact that, in the article, Dr. Turban asserts that, among other things, "[i]t's very helpful for the adolescent to be in psychotherapy during [social transitioning] to navigate these decisions." (*Id.*)

The above items meet the requirements of Rule 201(b)(2) of the Federal Rules of Evidence, and therefore, the Court must take judicial notice of them pursuant to Rule 201(c)(2) of the Federal Rules of Evidence.

Dated: February 21, 2023

DHILLON LAW GROUP INC.
CENTER FOR AMERICAN LIBERTY

/s/ Harmeet K. Dhillon
HARMEET K. DHILLON
MICHAEL A. COLUMBO
JOSHUA W. DIXON
ERIC A. SELL
Attorneys for Plaintiff
AURORA REGINO

Exhibit “A”

No. 18-13592

IN THE UNITED STATES COURT OF APPEALS
FOR THE ELEVENTH CIRCUIT

DREW ADAMS, *Plaintiff-Appellee*,

v.

THE SCHOOL BOARD OF ST. JOHNS COUNTY, FLORIDA, *Defendant-Appellant*.

On Appeal from the United States District Court for the
Middle District of Florida
Case No. 17-cv-739-TJC-JBT (Hon. Timothy J. Corrigan)

BRIEF OF *AMICI CURIAE* MEDICAL, NURSING, MENTAL HEALTH, AND OTHER HEALTH CARE ORGANIZATIONS IN SUPPORT OF APPELLEE

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CERTIFICATE OF INTERESTED PERSONS AND CORPORATE DISCLOSURE STATEMENT

Pursuant to Eleventh Circuit Rule 26.1-2(b), *amici* certify that, to the best of their knowledge, the certificate of interested persons contained in Defendant-Appellant's brief is complete. Pursuant to Federal Rule of Appellate Procedure 26.1 and Eleventh Circuit Rules 26.1-1 through 26.1-3, each *amicus curiae* hereby certifies that it has no parent corporation and that no publicly held corporation owns 10% or more of its stock.

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* Authorities upon which we chiefly rely are marked with an asterisk.

STATEMENT OF IDENTITY, INTEREST, AND AUTHORITY TO FILE OF *AMICI CURIAE*[1]

Amici are leading medical, nursing, and other health care organizations:

- American Academy of Child & Adolescent Psychiatry (AACAP)
- American Academy of Nursing
- American Academy of Pediatrics
- American College of Physicians
- American Medical Association
- American Medical Women's Association
- American Nurses Association
- Endocrine Society
- GLMA—Health Professionals Advancing LGBT Equality
- Mental Health America
- World Professional Association for Transgender Heath (WPATH)

Collectively, *amici* represent hundreds of thousands of physicians and mental health professionals, including specialists in pediatrics and adolescent care, family medicine, internal medicine, and endocrinology; and millions of nurses. *Amici* share

[1] *Amici* hereby certify that no party's counsel authored this brief in whole or in part, no party or party's counsel contributed money intended to fund preparation or submission of this brief, and no person other than *amici* and their counsel contributed money intended to fund preparation or submission of the brief. The parties have consented to the filing of this *amicus* brief.

a commitment to improving the physical and mental health of all Americans—regardless of gender identity—and to informing and educating lawmakers, the judiciary, and the public regarding the public health impacts of laws and policies.

Amici submit this brief to inform the Court of the medical consensus regarding what it means to be transgender; the protocols for the treatment of gender dysphoria; and the predictable harms to the health and well-being of transgender adolescents when they are excluded from restrooms that match their gender identity.

STATEMENT OF THE ISSUE

1. Whether the District Court properly found unconstitutional and in violation of Title IX Defendant's policy prohibiting Plaintiff from using the boys' restrooms.

SUMMARY OF ARGUMENT

Transgender individuals have a gender identity that is incongruent with the sex they were assigned at birth. The medical community's understanding of what it means to be transgender has advanced greatly over the past century. The medical community now understands that being transgender implies no impairment in a person's judgment, stability, or general social or vocational capabilities. According to recent estimates, approximately 1.4 million transgender adults live in the United States—0.6 percent of the adult population.

Many transgender individuals, like Plaintiff, have a condition called gender dysphoria, which is characterized by clinically significant distress and impairment of function resulting from the incongruence between one's gender identity and the sex assigned at birth. The international medical consensus regarding treatment for gender dysphoria is to assist the patient to live in accordance with his or her gender identity, thus alleviating the distress. Treatment may include any or all of the following: counseling, social transition (through, *e.g.*, use of a new name and pronouns; new clothes and grooming; and use of single-sex facilities, including restrooms, most consistent with the individual's gender identity), and hormone therapy and surgical interventions.

Access to single-sex facilities that correspond to one's gender identity is a critical aspect of social transition and, thus, successful treatment of gender dysphoria. By contrast, excluding transgender individuals from facilities consistent with their gender identity undermines their treatment; exposes them to stigma and discrimination; harms their physical health by causing them to avoid restroom use; and impairs their social and emotional development. Similarly, transgender students who must use separate facilities than other students are not required to use are at risk of being bullied and discriminated against and suffer psychological harm. The stigma and minority stress that result from discrimination can, in turn, lead to poorer health outcomes for transgender individuals.

ARGUMENT

I. What It Means To Be Transgender And To Suffer From Gender Dysphoria

Transgender individuals have a "gender identity"—a "deeply felt, inherent sense" of their gender—that is not aligned with the sex assigned to them at birth.[2] Transgender people differ from cisgender (*i.e.*, non-transgender) individuals, whose gender identity aligns with the sex assigned at birth.[3]

While recent estimates suggest that approximately 1.4 million transgender adults live in the United States (0.6 percent of the adult population),[4] these "population estimates likely underreport the true number of [transgender] people."[5] People of all different races and ethnicities identify as transgender.[6] They live in

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[2] Am. Psychol. Ass'n, *Guidelines for Psychological Practice with Transgender and Gender Nonconforming People*, 70 Am. Psychologist 832, 834 (2015) (hereinafter "Am. Psychol. Ass'n Guidelines"); *see also* David A. Levine & Comm. on Adolescence, Am. Acad. of Pediatrics Technical Report, *Office-Based Care for Lesbian, Gay, Bisexual, Transgender, and Questioning Youth*, 132 Pediatrics e297, 298 (2013) (hereinafter "AAP Technical Report"). Although most people have a gender identity that is male or female, some individuals have a gender identity that is "a blend of male or female[,] or an alternative gender." Am. Psychol. Ass'n Guidelines at 834.

[3] Am. Psychol. Ass'n Guidelines, *supra*, at 861.

[4] Andrew R. Flores et al., The Williams Inst., *How Many Adults Identify as Transgender in the United States?* 2 (2016), http://williamsinstitute.law.ucla.edu/wp-content/uploads/How-Many-Adults-Identify-as-Transgender-in-the-United-States.pdf.

[5] Am. Psychol. Ass'n Guidelines, *supra*, at 832.

[6] *See* Halley P. Crissman et al., *Transgender Demographics: A Household Probability Sample of US Adults*, 2014, 107 Am. J. Pub. Health 213, 214-15 (2017); Andrew R. Flores et al., The Williams Inst., *Race and Ethnicity of Adults Who Identify as Transgender in the United States* 2 (2016), https://williams

every state, serve in our military, and raise children.[7] Gender identity is distinct from and does not predict sexual orientation; transgender people, like cisgender people, may identify as heterosexual, gay, lesbian, bisexual, or asexual.[8]

The medical profession's understanding of gender has advanced considerably over the past fifty years. Throughout much of the twentieth century, individuals who were not gender conforming were often viewed as "perverse or deviant."[9] Practices during that period tried to "correct" this perceived deviance by attempting to force transgender people to live in accordance with the sex assigned to them at birth. These efforts failed and caused significant harm to the individuals subjected to them.[10]

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institute.law.ucla.edu/wp-content/uploads/Race-and-Ethnicity-of-Transgender-Identified-Adults-in-the-US.pdf.

[7] Gary J. Gates & Jody L. Herman, The Williams Inst., *Transgender Military Service in the United States* (2014), http://williamsinstitute.law.ucla.edu/wp-content/uploads/Transgender-Military-Service-May-2014.pdf; Sandy E. James et al., Nat'l Center for Transgender Equality, *The Report of the 2015 U.S. Transgender Survey* 2 (2016), http://www.transequality.org/sites/default/files/docs/usts/USTS%20Full%20Report%20-%20FINAL%201.6.17.pdf; Rebecca L. Stotzer et al., The Williams Inst., *Transgender Parenting: A Review of Existing Research* (2014), http://williamsinstitute.law.ucla.edu/research/parenting/transgender-parenting-oct-2014.

[8] Am. Psychol. Ass'n Guidelines, *supra*, at 835-36; James et al., Nat'l Center for Transgender Equality, *Report of the 2015 U.S. Transgender Survey*, *supra*, at 246.

[9] Am. Psychol. Ass'n, *Report of the APA Task Force on Gender Identity and Gender Variance* 26-27 (2008), https://www.apa.org/pi/lgbt/resources/policy/gender-identity-report.pdf (hereinafter "Am. Psychol. Ass'n Task Force Report").

[10] *Id.*; Substance Abuse and Mental Health Servs. Admin., *Ending Conversion Therapy: Supporting and Affirming LGBTQ Youth* 13, 25 (2015), http://store.samhsa.gov/shin/content/SMA15-4928/SMA15-4928.pdf.

Much as our professions recognize that homosexuality is a normal form of human sexuality—and that stigmatizing gay people causes significant harm—we now recognize that being transgender "implies no impairment in judgment, stability, reliability, or general social or vocational capabilities."[11]

A. Gender Identity

"[G]ender identity" refers to a person's internal sense of being male, female, or another gender.[12] Every person has a gender identity,[13] which cannot be altered voluntarily[14] or ascertained immediately after birth.[15] Many children develop stability in their gender identity between ages 3 and 4.[16]

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[11] Am. Psychiatric Ass'n, *Position Statement on Discrimination Against Transgender and Gender Variant Individuals* (2012), https://psychiatry.org/File%20Library/About-APA/Organization-Documents-Policies/Policies/Position-2012-Transgender-Gender-Variant-Discrimination.pdf.

[12] Am. Psychol. Ass'n, *Answers to Your Questions About Transgender People, Gender Identity, and Gender Expression* 1 (2014), http://www.apa.org/topics/lgbt/transgender.pdf.

[13] *See* Caitlin Ryan, Family Acceptance Project, *Supportive Families, Healthy Children: Helping Families with Lesbian, Gay, Bisexual, & Transgender Children*, 17 (2009), http://familyproject.sfsu.edu/sites/default/files/FAP_English%20Booklet_pst.pdf.

[14] Colt Meier & Julie Harris, Am. Psychol. Ass'n, *Fact Sheet: Gender Diversity and Transgender Identity in Children* 1, http://www.apadivisions.org/division-44/resources/advocacy/transgender-children.pdf; *see also* Am. Acad. of Pediatrics, *Gender Identity Development in Children* (2015), https://healthychildren.org/English/ages-stages/gradeschool/Pages/Gender-Identity-and-Gender-Confusion-In-Children.aspx.

[15] Am. Psychol. Ass'n Guidelines, *supra*, at 862.

[16] *Id.* at 841. "Although gender identity is usually established in childhood, individuals may become aware that their gender identity is not in full alignment with sex assigned at birth in childhood, adolescence, or adulthood." *Id.* at 836.

"[G]ender expression refers to the way a person communicates gender identity to others through behavior, clothing, hairstyles, voice, or body characteristics."[17] There are many individuals who depart from stereotypical male and female appearances and roles, but who are not transgender.[18] Indeed, most people who express their gender in a non-stereotypical or non-conforming manner are or become comfortable with the sex they were assigned at birth.[19] In contrast, a transgender boy or transgender girl "consistently, persistently, and insistently" identifies as a gender different than the sex they were assigned at birth.[20] The District Court relied on this very definition in its decision enjoining Defendant's bathroom policy, D.E. 192 at 7, and used the definition to support its rejection of Defendant's argument that permitting Plaintiff to use the boys' restroom will result in the elimination of separate sex restrooms, D.E. 192 at 47.

Psychologists, psychiatrists, and neuroscientists are not certain why some people are transgender. Some research suggests there may be biological

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[17] Am. Psychol. Ass'n, *Answers to Your Questions About Transgender People*, *supra*, at 1.

[18] Ethan C. Cicero & Linda M. Wesp, *Supporting the Health and Well-Being of Transgender Students*, J. Sch. Nursing 1, 6 (2017).

[19] World Prof'l Ass'n for Transgender Health, *Standards of Care for the Health of Transsexual, Transgender, and Gender-Nonconforming People* 5 (7th Version, 2011), http://www.wpath.org/site_page.cfm?pk_association_webpage_menu=1351&pk_association_webpage=4655 (hereinafter "WPATH Standards of Care").

[20] *See* Meier & Harris, Fact Sheet: *Gender Diversity and Transgender Identity in Children*, *supra*, at 1; *see also* Cicero & Wesp, *Supporting the Health and Well-Being of Transgender Students*, *supra*, at 6.

influences,[21] including, for example, exposure of natal females to elevated levels of testosterone in the womb.[22] Brain scans and neuroanatomical studies of transgender individuals may also support these biological explanations.[23]

B. Gender Dysphoria

Being transgender "implies no impairment in judgment, stability, reliability, or general social or vocational capabilities."[24] However, many transgender individuals are diagnosed with gender dysphoria, a condition that is characterized by debilitating distress and anxiety resulting from the incongruence between an individual's gender identity and birth-assigned sex.[25]

The District Court's factual findings are consistent with, and rely on, this medical consensus. *See* D.E. 192 at 7-8.

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[21] *See* Am. Acad. of Pediatrics, *Gender Non-Conforming & Transgender Children* (2015), https://healthychildren.org/English/ages-stages/gradeschool/Pages/Gender-Non-Conforming-Transgender-Children.aspx; Peggy T. Cohen-Kettenis et al., *The Treatment of Adolescent Transsexuals: Changing Insights*, 5 J. Sexual Med. 1892, 1895 (2008).

[22] Arianne B. Dessens et al., *Gender Dysphoria and Gender Change in Chromosomal Females with Congenital Adrenal Hyperplasia*, 34 Arch. Sexual Behav. 389, 395 (2005).

[23] *See, e.g.*, Francine Russo, *Is There Something Unique About the Transgender Brain?* Sci. Am. (Jan. 1, 2016), https://www.scientificamerican.com/article/is-there-something-unique-about-the-transgender-brain/.

[24] Am. Psychiatric Ass'n, *Position Statement on Discrimination Against Transgender and Gender Variant Individuals*, *supra*.

[25] Am. Psychiatric Ass'n, *Diagnostic and Statistical Manual of Mental Disorders* 451-53 (5th ed. 2013) (hereinafter "DSM-5").

1. The Diagnostic Criteria And Seriousness Of Gender Dysphoria

The Diagnostic and Statistical Manual of Mental Disorders codifies the diagnostic criteria for gender dysphoria in adolescents and adults as follows: "A marked incongruence between one's experienced/expressed gender and assigned gender, of at least 6 months' duration, as manifested by at least two" out of six criteria, and "clinically significant distress or impairment in social, occupational, or other important areas of functioning."[26] The six criteria include (1) "[a] marked incongruence between one's experienced/expressed gender and primary and/or secondary sex characteristics"; (2) "[a] strong desire to be rid of one's primary and/or secondary sex characteristics"; (3) "[a] strong desire for the primary and/or secondary sex characteristics of the other gender"; (4) "[a] strong desire to be of the other gender (or some alternative gender)"; (5) "[a] strong desire to be treated" as a gender different from one's assigned gender; and (6) "[a] strong conviction that one has the typical feelings and reactions" of a different gender.[27]

Transgender children often experience intensified gender dysphoria and worsening mental health as the hormonal and anatomical changes associated with puberty cause the body to develop in ways that diverge from the child's gender

[26] *Id.*
[27] *Id.* at 452.

identity.[28] For instance, a deepening voice for male-assigned individuals or the growth of breasts and the beginning of a menstrual cycle for female-assigned individuals can cause severe distress.

If untreated, gender dysphoria can contribute to debilitating distress, depression, impairment of function, substance use, self-mutilation to alter one's genitals or secondary sex characteristics, other self-injurious behaviors, and suicide.[29] Transgender individuals also are frequently subjected to prejudice and discrimination in multiple areas of their lives, which exacerbates these negative health outcomes.[30]

2. The Accepted Treatment Protocols For Gender Dysphoria

Until the middle of the twentieth century, most mental health practitioners treated transgender people by attempting to make the patient's gender identity

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[28] Am. Psychol. Ass'n Task Force Report, *supra*, at 45; Substance Abuse and Mental Health Servs. Admin., *Ending Conversion Therapy*, *supra*, at 3.

[29] *See, e.g.*, DSM-5, *supra*, at 455, 458; Stephanie A. Brill & Rachel Pepper, *The Transgender Child: A Handbook for Families and Professionals* 202 (2008) (discussing risk of self-mutilation).

[30] Michael L. Hendricks & Rylan J. Testa, *A Conceptual Framework for Clinical Work with Transgender and Gender Nonconforming Clients: An Adaptation of the Minority Stress Model*, 43 Prof'l Psychol.: Research & Practice 460 (2012); Jessica Xavier et al, Va. Dep't of Health, *The Health, Health-Related Needs, and Lifecourse Experiences of Transgender Virginians* (2007), http://www.vdh.virginia.gov/content/uploads/sites/10/2016/01/THISFINALREPORTVol1.pdf.

consistent with the sex assigned at birth.[31] There is no evidence that these methods alleviate gender dysphoria or that they can prevent someone from being transgender.[32] To the contrary, they can "often result in substantial psychological pain by reinforcing damaging internalized attitudes,"[33] and can damage family relationships and individual functioning by increasing feelings of shame.[34]

In the last few decades, transgender people and those suffering from gender dysphoria have gained widespread access to gender-affirming psychological and medical support.[35] For over 30 years, the generally-accepted treatment protocols for gender dysphoria[36] have aimed at alleviating the distress associated with the

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[31] Am. Psychol. Ass'n Guidelines, *supra*, at 835; Jack Drescher, *Queer Diagnoses: Parallels and Contrasts in the History of Homosexuality, Gender Variance, and the Diagnostic and Statistical Manual*, 39 Arch. Sexual Behav. 427, 436-40 (2010).

[32] Substance Abuse and Mental Health Servs. Admin., *Ending Conversion Therapy*, *supra*, at 26; Jack Drescher, *Controversies in Gender Diagnoses*, 1 LGBT Health 9, 12 (2013).

[33] Am. Psychoanalytic Ass'n, *Position Statement on Attempts to Change Sexual Orientation, Gender Identity, or Gender Expression* (2012), http://www.apsa.org/content/2012-position-statement-attempts-change-sexual-orientation-gender-identity-or-gender.

[34] Darryl B. Hill et al., *An Affirmative Intervention for Families with Gender Variant Children: Parental Ratings of Child Mental Health and Gender*, 36 J. Sex & Marital Therapy 6, 10 (2010); Robert Wallace & Hershel Russell, *Attachment and Shame in Gender-Nonconforming Children and Their Families: Toward a Theoretical Framework for Evaluating Clinical Interventions*, 14 Int'l J. Transgenderism 113, 119-20 (2013).

[35] Am. Psychol. Ass'n Guidelines, *supra*, at 835; WPATH Standards of Care, *supra*, at 8-9.

[36] Earlier versions of the DSM used different terminology, *e.g.*, gender identity disorder, to refer to this condition. Am. Psychol. Ass'n Guidelines, *supra*, at 861.

incongruence between gender identity and birth-assigned sex.[37] These protocols are laid out in the *Standards of Care for the Health of Transsexual, Transgender, and Gender Nonconforming People (Version 7)* developed by the World Professional Association for Transgender Health ("WPATH").[38] Indeed, the District Court described WPATH as having "established the accepted standard of care for transgender persons suffering from gender dysphoria" in its decision enjoining the Defendant from enforcing its policy against Plaintiff. D.E. 192 at 8. Many of the major medical and mental health groups in the United States recognize the WPATH Standards of Care as representing the consensus of the medical and mental health community regarding the appropriate treatment for gender dysphoria.[39]

The recommended treatment for transgender people with gender dysphoria includes assessment, counseling, and, as appropriate, social transition, puberty-blocking drug treatment, hormone therapy, and surgical interventions to bring the

[37] Am. Med. Ass'n, Comm. on Human Sexuality, *Human Sexuality* 38 (1972).
[38] WPATH Standards of Care, *supra*.
[39] Am. Psychol. Ass'n Task Force Report, *supra*, at 32; AAP Technical Report, *supra*, at 307-08.

body into alignment with one's gender identity.[40] However, each patient requires an individualized treatment plan that accounts for the patient's specific needs.[41]

Social transition—*i.e.*, living one's life fully in accordance with one's gender identity—is often a critically important part of treatment. This typically includes publicly identifying oneself as that gender; adopting a new name; using different pronouns; grooming and dressing in a manner typically associated with one's gender identity; and using restrooms and other single-sex facilities consistent with that

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[40] Am. Psychol. Ass'n Task Force Report, *supra*, at 32-39; Am. Psychol. Ass'n & Nat'l Ass'n of Sch. Psychologists, *Resolution on Gender and Sexual Orientation Diversity in Children and Adolescents in Schools* (2015), http://www.apa.org/about/policy/orientation-diversity.aspx (hereinafter "APA/NASP Resolution"); Am. Psychiatric Ass'n Workgroup on Treatment of Gender Dysphoria, *Assessment and Treatment of Gender Dysphoria and Gender Variant Patients: A Primer for Psychiatrists* 16-18 (2016); AAP Technical Report, *supra*, at 307-09. Some clinicians still offer versions of "reparative" or "conversion" therapy based on the idea that being transgender is a mental disorder. However, all of the leading medical professional organizations that have considered the issue have explicitly rejected such treatments. *See* Am. Med. Ass'n, Policy Number H-160.991, *Health Care Needs of Lesbian, Gay, Bisexual, and Transgender Populations* (rev. 2016), https://searchpf.ama-assn.org/SearchML/searchDetails.action?uri=%2FAMADoc%2FHOD.xml-0-805.xml; Am. Sch. Counselor Ass'n, *The School Counselor and LGBTQ Youth* (2016), https://www.schoolcounselor.org/asca/media/asca/PositionStatements/PS_LGBTQ.pdf; Hillary Daniel et al., *Lesbian, Gay, Bisexual, and Transgender Health Disparities: Executive Summary of a Policy Position Paper from the American College of Physicians*, 163 Annals Internal Med. 135, 136 (2015); AAP Technical Report, *supra*, at 301; Am. Psychoanalytic Ass'n, *Position Statement on Attempts to Change Sexual Orientation, Gender Identity, or Gender Expression*, *supra*.

[41] Am. Psychol. Ass'n Task Force Report, *supra*, at 32.

identity.[42] Transgender children who have not transitioned report higher levels of anxiety and depression than their non-transgender peers, while studies of transitioned children suggest that they report statistically similar levels of anxiety and depression as their peers.[43]

For some adults and adolescents, hormone treatment to feminize or masculinize the body may be medically necessary to treat their gender dysphoria.[44] *Amicus curiae* the Endocrine Society, the oldest and largest global professional membership organization representing the field of endocrinology, considers these treatments to be the standard of care for gender dysphoria.[45] A transgender boy undergoing hormone treatment, for example, will be exposed to the same levels of

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[42] AAP Technical Report, *supra*, at 308; Am. Psychol. Ass'n Guidelines, *supra*, at 840.

[43] Lily Durwood et al., *Mental Health and Self-Worth in Socially Transitioned Transgender Youth*, 56 J. Am. Acad. Child & Adolescent Psychiatry 116 (2017); Kristina R. Olson et al., *Mental Health of Transgender Children Who Are Supported in Their Identities*, 137 Pediatrics 1 (2016).

[44] Am. Med. Ass'n. Policy H-185.950, *Removing Financial Barriers to Care for Transgender Patients*; Am. Psychol. Ass'n Guidelines, *supra*, at 861, 862; Madeline B. Deutsch, Center of Excellence for Transgender Health, University of California, San Francisco, *Guidelines for the Primary and Gender-Affirming Care of Transgender and Gender Nonbinary People* 23 (2d ed. 2016); WPATH Standards of Care, *supra*, at 33, 54.

[45] *See* Wylie C. Hembree et al., *Endocrine Treatment of Gender-Dysphoric/Gender-Incongruent Persons: An Endocrine Society Clinical Practice Guideline*, 102 J. Clinical Endocrinology & Metabolism 3869, 3869-70 (2017); *see also* Alessandra D. Fisher et al., *Cross-Sex Hormone Treatment and Psychobiological Changes in Transsexual Persons: Two-Year Follow-Up Data*, 101 J. Clinical Endocrinology & Metabolism 4260 (2016).

testosterone as other boys who go through male puberty; and just as they would in any other boy, these hormones will affect most of his major body systems.[46] Hormone treatment alters the appearance of the patient's genitals and produces secondary sex characteristics such as increased muscle mass, increased facial hair, and a deepening of the voice in transgender boys and men, and breast growth and decreased muscle mass in transgender girls and women.[47] For children experiencing the onset of puberty, treatment may include medication to prevent further progression of puberty ("puberty blockers").[48] This fully reversible treatment allows children with gender dysphoria to delay the development of secondary sex characteristics that do not match their gender identity, giving them additional time to decide whether hormone treatment to feminize or masculinize the body is appropriate.[49]

Surgical interventions may also be an appropriate and medically necessary treatment for some patients. These procedures could include chest reconstruction surgery for transgender men, breast augmentation (*i.e.* implants) for transgender

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[46] Hembree et al., *Endocrine Treatment of Gender Dysphoric/Gender-Incongruent Persons*, *supra*, at 3869, 3871; *see also* Brill & Pepper, *The Transgender Child*, *supra*, at 217.
[47] Hembree et al., *Endocrine Treatment of Gender Dysphoric/Gender-Incongruent Persons*, *supra*, at 3886-89.
[48] *Id.* at 3880-83.
[49] *Id.* at 3880; Am. Psychol. Ass'n Guidelines, *supra*, at 842; WPATH Standards of Care, *supra*, at 18-20.

women, or genital surgery.[50] Studies show these procedures are effective in reducing gender dysphoria and improving mental health.[51] Because these surgical procedures are largely irreversible, some are recommended only for transgender individuals who have reached the age of legal majority.[52]

Ultimately—regardless of the particular treatments required for a specific individual and when such treatment begins—the goal is for individuals with gender dysphoria to experience "identity integration," where "being transgender is no longer the most important signifier of one's identity" and the individual can refocus on their relationships, school, jobs, and other life activities.[53]

II. Excluding Transgender Individuals From Facilities Consistent With Their Gender Identity Endangers Their Health, Safety, And Well-Being.

Transgender students should have access to the sex-segregated facilities, activities, and programs that are *consistent* with their gender identity—including but not limited to bathrooms, locker rooms, sports teams, and classroom activities.[54]

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[50] Hembree et al., *Endocrine Treatment of Gender Dysphoric/Gender-Incongruent Persons*, *supra*, at 3893-94; *see also* WPATH Standards of Care, *supra*, at 57-58.
[51] William Byne et al., *Report of the American Psychiatric Association Task Force on Treatment of Gender Identity Disorder*, 41 Arch. Sexual Behav. 759, 778-79 (2012); Annelou L.C. de Vries, *Young Adult Psychological Outcome After Puberty Suppression and Gender Reassignment*, 134 Pediatrics 696 (2014).
[52] WPATH Standards of Care, *supra*, at 21.
[53] Walter Bockting & Eli Coleman, *Developmental Stages of the Transgender Coming-Out Process: Toward an Integrated Identity, in Principles of Transgender Medicine and Surgery* 137, 153 (Randi Ettner, Stan Monstrey & Eli Coleman eds., 2d ed. 2016).
[54] APA/NASP Resolution, *supra*, at 9.

Evidence confirms that policies excluding transgender individuals from facilities consistent with their gender identity (hereinafter, "exclusionary policies") have detrimental effects on the physical and mental health, safety, and well-being of transgender individuals.[55] And while schools often provide private restrooms for any student who seeks greater privacy for any reason, forcing transgender students to use those separate facilities sends a stigmatizing message that can have a lasting and damaging impact on the health and well-being of the young person.

In contrast, there is no evidence of any harm to the physical or mental health of other children and adolescents when transgender students use facilities that match their gender identity. *Amici* are not hearing from their members about students experiencing any such harm—even though numerous states and school districts have policies allowing transgender individuals to use restrooms that match their gender identity. Furthermore, in two cases brought by cisgender students challenging school policies allowing transgender students to access the restrooms and locker rooms consistent their gender identity, the courts rejected the cisgender plaintiffs' preliminary injunction motions and their claims of harm.[56]

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[55] In fact, the AMA, whose mission statement requires it to support public health, recently confirmed its support for transgender individuals' accessing public restrooms according to their gender identities. AMA Policy H-65.964, *Access to Human Services for Transgender Individuals* (2017).

[56] *Doe v. Boyertown Area School Dist.*, 276 F. Supp. 3d 324, 382, 409-11 (E.D. Pa. 2017), *aff'd*, 897 F.3d 518 (3d Cir. 2018), *petition for cert. filed*, 87 U.S.L.W. 3229

A. Exclusionary Policies Exacerbate Gender Dysphoria And Are Contrary To Widely Accepted, Evidence-Based Treatment Protocols.

For transgender individuals, being treated differently from other men and women can cause tremendous pain and harm.[57] Indeed, exclusionary polices that force transgender people to disregard or deny their gender identity every time they must use a restroom disrupt medically appropriate treatment protocols. While those protocols provide that transgender individuals should live all aspects of their life in the gender with which they identify, *see supra* at 8-13, exclusionary policies require transgender individuals to live one facet of their lives in contradiction with their gender identity. As a result, exclusionary policies threaten to exacerbate the risk of "anxiety and depression, low self-esteem, engaging in self-injurious behaviors, suicide, substance use, homelessness, and eating disorders among other adverse outcomes" that many transgender individuals face.[58] Those risks are already all too serious: in a comprehensive survey of over 27,000 transgender individuals, 40

(U.S. Nov. 21, 2018) (No. 18-658); *Students and Parents for Privacy v. United States Dep't of Educ.*, No. 16-cv-4945, 2016 WL 6134121, at *28-29, *36-39 (N.D. Ill. Oct. 18, 2016), *report and recommendation adopted by* 2017 WL 6629520 (N.D. Ill. Dec. 29, 2017).

[57] *See, e.g.*, Sam Winter et al., *Transgender People: Health at the Margins of Society*, 388 Lancet 390, 394 (2016).

[58] APA/NASP Resolution, *supra*, at 4.

percent reported a suicide attempt—a rate *nine times* that reported by the general U.S. population.[59]

B. Exclusionary Policies Expose Transgender Individuals To Harassment And Abuse.

Exclusionary policies expose transgender individuals to harassment and abuse by forcing them to occupy gender-segregated spaces where their presence may be met with hostility, harassment, and abuse. For example, transgender men are visually recognized as men by other individuals; the presence of a transgender man in a women's restroom would be just as alarming as the presence of a cisgender man in the same women's restroom.

Exclusionary policies thus force transgender individuals to disclose their transgender status, because it is only transgender individuals who must use facilities that are incongruent with their gender identity and how they live and are recognized in the world. Because some children will have transitioned before they arrive in a particular school, exclusionary policies may be the only way that they are forcibly "outed" to their peers as transgender.

Such compelled disclosure of one's transgender status is harmful for at least two reasons. First, control over the circumstances in which a person may choose to disclose being transgender is fundamental to the development of individuality and

[59] James et al., Nat'l Center for Transgender Equality, *Report of the 2015 U.S. Transgender Survey*, *supra*, at 114.

autonomy.[60] Exclusionary policies rob transgender individuals of the personal choice regarding whether and when to reveal their transgender status. Disclosure of one's status as transgender is often anxiety-inducing and fraught; it is critical to a person's sense of safety, privacy, and dignity to have control over when and how that information is shared.

Second, such compelled disclosure exposes transgender individuals to the risk of harassment or abuse. In a 2013 survey, 68 percent of transgender respondents reported experiencing at least one instance of verbal harassment, and 9 percent reported suffering at least one instance of physical assault in gender-segregated bathrooms.[61]

These harms affect youth and adults alike. "[M]any gender and sexual orientation diverse children and adolescents experience harassment, bullying, and physical violence in school environments."[62] Because unwanted disclosure may cause such significant harm, the American Academy of Pediatrics' guidance states

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[60] Am. Acad. of Pediatrics, *American Academy of Pediatrics Opposes Legislation that Discriminates Against Transgender Children* (Apr. 18, 2016), https://www.aap.org/en-us/about-the-aap/aap-press-room/Pages/AAPOpposesLegislationAgainstTransgenderChildren.aspx.

[61] Jody L. Herman, *Gendered Restrooms and Minority Stress: The Public Regulation of Gender and its Impact on Transgender People's Lives*, 19 J. Pub. Mgmt. & Soc. Pol'y 65, 73 (2013).

[62] APA/NASP Resolution, *supra*, at 5; *see* Joseph G. Kosciw et al., GLSEN, *The 2015 National School Climate Survey: The Experiences of Lesbian, Gay, Bisexual, Transgender, and Queer Youth In Our Nation's Schools* 12 (2016).

that care should be confidential, and it is not the role of the pediatrician to inform parents/guardians about a patient's sexual identity or behavior as doing so could expose the patient to harm.[63] Indeed, the American Academy of Pediatrics announced its opposition to exclusionary policies by noting that they undermine children's ability "to feel safe where they live and where they learn."[64]

C. Exclusionary Policies Exacerbate Stigma And Discrimination, Leading To Negative Health Outcomes.

It is well documented that transgender individuals experience widespread prejudice and discrimination, and that this discrimination frequently takes the form of violence, harassment, or other abuse.[65] For example, in a Virginia survey of transgender individuals, 50 percent of participants reported that they had experienced discrimination in healthcare, employment, or housing, and many individuals had experienced discrimination in more than one area.[66]

Exclusionary policies perpetuate such stigma and discrimination, both by forcing transgender individuals to disclose their status, and by marking transgender

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[63] AAP Technical Report, *supra*, at 305.
[64] Am. Acad. of Pediatrics, *American Academy of Pediatrics Opposes Legislation that Discriminates Against Transgender Children*, *supra*.
[65] Jamie M. Grant et al., Nat'l Center for Transgender Equality, *Injustice at Every Turn: A Report of the National Transgender Discrimination Survey* 2-8 (2011), http://www.thetaskforce.org/static_html/downloads/reports/reports/ntds_full.pdf.
[66] Judith Bradford et al., *Experiences of Transgender-Related Discrimination and Implications for Health: Results from the Virginia Transgender Health Initiative Study*, 103 Am. J. Pub. Health 1820, 1825 (2013).

individuals as "others" who are unfit to use the restrooms used by everyone else. Such policies inherently convey the state's judgment that transgender individuals are different and deserve inferior treatment.

Research increasingly shows that stigma and discrimination can have deleterious health consequences,[67] including striking effects on the daily functioning and emotional and physical health of transgender persons.[68] A 2012 study of transgender adults found a rate of hypertension twice that in the general population, which it attributed to the known effects of emotions on cardiovascular health.[69] Another study concluded that "living in states with discriminatory policies . . . was associated with a statistically significant increase in the number of psychiatric disorder diagnoses."[70] And a third study demonstrated that past school victimization may result in greater risk for post-traumatic stress disorder, depression, anxiety, and

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[67] *See generally* Am. Psychol. Ass'n, *Stress in America: The Impact of Discrimination* (2016), https://www.apa.org/news/press/releases/stress/2015/impact-of-discrimination.pdf.

[68] *See, e.g.*, Am. Psychoanalytic Ass'n, *Position Statement on Attempts to Change Sexual Orientation, Gender Identity, or Gender Expression*, *supra* ("bias against individuals based on actual or perceived sexual orientation, gender identity or gender expression negatively affects mental health").

[69] Randi Ettner et al., *Secrecy and the Pathophysiology of Hypertension*, Int'l J. Family Med. (2012).

[70] Bradford et al., *Experiences of Transgender-Related Discrimination and Implications for Health*, *supra*, at 1827.

suicidality.[71] As the American Psychological Association has concluded, "the notable burden of stigma and discrimination affects minority persons' health and well-being and generates health disparities."[72] There is thus every reason to anticipate that exclusionary policies will negatively affect the health of transgender individuals.

D. Exclusionary Policies Lead To Avoidance Of Restroom Use, Harming Physical Health.

Exclusionary policies have more immediate health effects as well. Though most of us take it for granted, all individuals require regular access to a restroom. Exclusionary policies that preclude transgender individuals from using restrooms consistent with their gender identity put transgender individuals to a difficult choice: (1) violate the policy and face potential disciplinary consequences; (2) use the restroom inconsistent with their gender identity or "special" single-user restrooms, which undermines their health care needs and risks discrimination or harassment; or (3) attempt not to use the restroom at all.

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[71] Russell B. Toomey et al., *Gender-Nonconforming Lesbian, Gay, Bisexual, and Transgender Youth: School Victimization and Young Adult Psychosocial Adjustment*, 46 Developmental Psychology 1580, 1581 (2010).

[72] APA/NASP Resolution, *supra*, at 3-4; *see also* Institute of Medicine Committee on LGBT Issues and Research Gaps and Opportunities, *The Health of Lesbian, Gay, Bisexual, and Transgender People: Building a Foundation for Better Understanding* 13 (2011) (noting that "prejudice, discrimination, and violence" underlie the "health disparities" between transgender and cisgender populations).

This difficult choice produces heightened anxiety and distress around restroom use, which may make it difficult for transgender individuals to concentrate or focus at school or work and potentially cause them to eschew social activities or everyday tasks.[73] At least one study of transgender college students associated being denied access to restrooms consistent with one's gender identity to an increase in suicidality.[74]

Studies also show that it is common for transgender students to avoid using restrooms.[75] But that avoidance can have medical consequences, including recurrent urinary tract infections and constipation, as well as the possibility of more serious health complications, including hematuria (blood in the urine), chronic kidney disease or insufficiency, urolithiasis (stones in the kidney, bladder, or urethra), infertility, and cancer.[76]

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[73] Herman, *Gendered Restrooms and Minority Stress*, *supra*, at 75.

[74] Kristie L. Seelman, *Transgender Adults' Access to College Bathrooms and Housing and the Relationship to Suicidality*, 63 J. Homosexuality 1378, 1388-89 (2016).

[75] Am. Psychol. Ass'n Guidelines, *supra*, at 840.

[76] *See, e.g.*, Herman, *Gendered Restrooms and Minority Stress*, *supra* at 75 (surveying of transgender and gender non-conforming people in Washington D.C., and finding that 54% of respondents reported a "physical problem from trying to avoid using public bathrooms" including dehydration, urinary tract infections, kidney infection, and other kidney-related problems); James et al., Nat'l Center for Transgender Equality, *Report of the 2015 U.S. Transgender Survey*, *supra*, at 246; Anas I. Ghousheh et al., *Advanced Transitional Cell Carcinoma of the Bladder in a 16-Year-Old Girl with Hinman Syndrome*, 80 Urology 1141 (2012).

Some transgender students experiencing fear and anxiety about restroom usage may attempt to dehydrate themselves so that they will need to urinate less frequently.[77] Chronic dehydration has been linked to a variety of conditions, including urinary tract infections, kidney stones, blood clots, kidney disease, heart disease, and colon and bladder cancer.[78]

These negative outcomes are not alleviated by forcing students into separate single-user restrooms. Being required to use separate facilities may force disclosure of one's transgender status and cause anxiety and fear related to being singled out and separated from peers. Additionally, single-user facilities are generally less available and more inconvenient, causing people to further avoid restroom use or disrupt their schedules to go to the restroom. Separate restrooms thus do not alleviate the anxiety, fear, or negative health consequences that result from exclusionary bathroom policies.

E. Exclusionary Policies Harm Adolescent Social And Emotional Development—With Lifelong Effects.

Finally, exclusionary policies have a particularly deleterious effect on the social and emotional development of children and adolescents. Discrimination and harassment of children and adolescents in their formative years may have effects that

[77] Herman, *Gendered Restrooms and Minority Stress*, *supra*, at 75.
[78] Lawrence E. Armstrong, *Challenges of Linking Chronic Dehydration and Fluid Consumption to Health Outcomes*, 70 Nutrition Rev. S121, 122 (2012).

linger long *after* they leave the school environment. Unsurprisingly, unwelcoming school environments produce particularly poor educational outcomes for transgender individuals.[79] Poorer educational outcomes, standing alone, may lead to lower lifetime earnings and an increased likelihood of poorer health outcomes later in life.[80]

Moreover, and as already discussed, exclusionary policies may produce and compound the stigma and discrimination that transgender children and adolescents face in the school environment. That stigma and discrimination, in turn, is associated with an increased risk of post-traumatic stress disorder, depression, anxiety, and suicidality in subsequent years.[81]

Conversely, evidence demonstrates that a safe and welcoming school environment may promote positive social and emotional development and health outcomes. Numerous studies show that safer school environments lead to *reduced* rates of depression, suicidality, or other negative health outcomes.[82]

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[79] *See* APA/NASP Resolution, *supra*, at 6; Emily A. Greytak et al., GLSEN, *Harsh Realities: The Experiences of Transgender Youth in Our Nation's Schools* (2009).
[80] *See, e.g.*, Emily B. Zimmerman et al., U.S. Dep't of Health and Human Servs. Agency for Healthcare Research & Quality, *Understanding the Relationship Between Education and Health: A Review of the Evidence and an Examination of Community Perspectives* (2015), https://www.ahrq.gov/professionals/education/curriculum-tools/population-health/zimmerman.html.
[81] Toomey et al., *Gender-Nonconforming Lesbian, Gay, Bisexual, and Transgender Youth*, *supra*, at 1581; *see also* APA/NASP Resolution, *supra*, at 6.
[82] AAP Technical Report, *supra*, at 301, 302, 304-05; *see, e.g.*, Marla E. Eisenberg et al., *Suicidality Among Gay, Lesbian and Bisexual Youth: The Role of Protective*

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With appropriate support—including safe and supportive schools—transgender youth can become happy and productive adults who contribute much to our society. By making schools into places of stress and conflict rather than welcoming spaces, exclusionary policies worsen stigma and discrimination against transgender students, causing myriad harms to their health, safety, and overall well-being.

CONCLUSION

For the foregoing reasons, *amici* respectfully urge this Court to affirm the District Court's decision enjoining Defendant from preventing Plaintiff from using single-sex multi-user facilities in accordance with his gender identity.

Factors, 39 J. Adolescent Health 662 (2006); Stephen T. Russell et al., *Youth Empowerment and High School Gay-Straight Alliances*, 38 J. Youth Adolescence 891 (2009).

Dated: February 28, 2019

Respectfully submitted,

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I hereby certify that this document complies with the word limit of Federal Rule of Appellate Procedure 29(a)(5) because, excluding the parts of the document exempted by Federal Rule of Appellate Procedure 32(f), this document contains 5793 words, and that this document complies with the typeface requirements of Federal Rule of Appellate Procedure 32(a)(5) and the type-style requirements of Federal Rule of Appellate Procedure 32(a)(6).

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CERTIFICATE OF SERVICE

I hereby certify that on February 28, 2019, I electronically filed the foregoing *amici curiae* brief with the Clerk of the Court by using the CM/ECF system. I certify that all participants in the case are registered CM/ECF users and that service will be accomplished by the CM/ECF system.

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Exhibit “B”

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Standards of Care for the Health of Transgender and Gender Diverse People, Version 8

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REPORT

Standards of Care for the Health of Transgender and Gender Diverse People, Version 8

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ABSTRACT

Background: Transgender healthcare is a rapidly evolving interdisciplinary field. In the last decade, there has been an unprecedented increase in the number and visibility of transgender and gender diverse (TGD) people seeking support and gender-affirming medical treatment in parallel with a significant rise in the scientific literature in this area. The World Professional Association for Transgender Health (WPATH) is an international, multidisciplinary, professional association whose mission is to promote evidence-based care, education, research, public policy, and respect in transgender health. One of the main functions of WPATH is to promote the highest standards of health care for TGD people through the Standards of Care (SOC). The SOC was initially developed in 1979 and the last version (SOC-7) was published in 2012. In view of the increasing scientific evidence, WPATH commissioned a new version of the Standards of Care, the SOC-8.

Aim: The overall goal of SOC-8 is to provide health care professionals (HCPs) with clinical guidance to assist TGD people in accessing safe and effective pathways to achieving lasting personal comfort with their gendered selves with the aim of optimizing their overall physical health, psychological well-being, and self-fulfillment.

Methods: The SOC-8 is based on the best available science and expert professional consensus in transgender health. International professionals and stakeholders were selected to serve on the SOC-8 committee. Recommendation statements were developed based on data derived from independent systematic literature reviews, where available, background reviews and expert opinions. Grading of recommendations was based on the available evidence supporting interventions, a discussion of risks and harms, as well as the feasibility and acceptability within different contexts and country settings.

Results: A total of 18 chapters were developed as part of the SOC-8. They contain recommendations for health care professionals who provide care and treatment for TGD people. Each of the recommendations is followed by explanatory text with relevant references. General areas related to transgender health are covered in the chapters Terminology, Global Applicability, Population Estimates, and Education. The chapters developed for the diverse population of TGD people include Assessment of Adults, Adolescents, Children, Nonbinary, Eunuchs, and Intersex Individuals, and people living in Institutional Environments. Finally, the chapters related to gender-affirming treatment are Hormone Therapy, Surgery and Postoperative Care, Voice and Communication, Primary Care, Reproductive Health, Sexual Health, and Mental Health.

Conclusions: The SOC-8 guidelines are intended to be flexible to meet the diverse health care needs of TGD people globally. While adaptable, they offer standards for promoting optimal health care and guidance for the treatment of people experiencing gender incongruence. As in all previous versions of the SOC, the criteria set forth in this document for gender-affirming medical interventions are clinical guidelines; individual health care professionals and programs may modify these in consultation with the TGD person.

KEYWORDS

adolescents; assessment; children; communication; education; endocrinology; eunuch; gender diverse; health care professional; institutional settings; intersex; mental health; nonbinary; population; postoperative care; primary care; reproductive health; sexual health; SOC8; Standards of Care; surgery; terminology; transgender; voice

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Statements of Recommendations

7.1- We recommend health care professionals working with gender diverse children receive training and have expertise in gender development and gender diversity in children and possess a general knowledge of gender diversity across the life span.
7.2- We recommend health care professionals working with gender diverse children receive theoretical and evidenced-based training and develop expertise in general child and family mental health across the developmental spectrum.
7.3- We recommend health care professionals working with gender diverse children receive training and develop expertise in autism spectrum disorders and other neurodiversity or collaborate with an expert with relevant expertise when working with autistic/neurodivergent, gender diverse children.
7.4- We recommend health care professionals working with gender diverse children engage in continuing education related to gender diverse children and families.
7.5- We recommend health care professionals conducting an assessment with gender diverse children access and integrate information from multiple sources as part of the assessment.
7.6- We recommend health care professionals conducting an assessment with gender diverse children consider relevant developmental factors, neurocognitive functioning, and language skills.
7.7- We recommend health care professionals conducting an assessment with gender diverse children consider factors that may constrain accurate reporting of gender identity/gender expression by the child and/or family/caregiver(s).
7.8- We recommend health care professionals consider consultation, psychotherapy, or both for a gender diverse child and family/caregivers when families and health care professionals believe this would benefit the well-being and development of a child and/or family.
7.9- We recommend health care professionals offering consultation, psychotherapy, or both to gender diverse children and families/caregivers work with other settings and individuals important to the child to promote the child's resilience and emotional well-being.
7.10- We recommend health care professionals offering consultation, psychotherapy, or both to gender diverse children and families/caregivers provide both parties with age-appropriate psychoeducation about gender development.
7.11- We recommend that health care professionals provide information to gender diverse children and their families/caregivers as the child approaches puberty about potential gender affirming medical interventions, the effects of these treatments on future fertility, and options for fertility preservation.
7.12- We recommend parents/caregivers and health care professionals respond supportively to children who desire to be acknowledged as the gender that matches their internal sense of gender identity.
7.13- We recommend health care professionals and parents/caregivers support children to continue to explore their gender throughout the pre-pubescent years, regardless of social transition.
7.14- We recommend the health care professionals discuss the potential benefits and risks of a social transition with families who are considering it.
7.15- We suggest health care professionals consider working collaboratively with other professionals and organizations to promote the well-being of gender diverse children and minimize the adversities they may face.

acceptance of their gender diversity and parenting guidance when requested. Comprehensive assessments are appropriate when solicited by a family requesting a full understanding of the child's gender and mental health needs in the context of gender diversity.

In these circumstances, family member mental health issues, family dynamics, and social and cultural contexts, all of which impact a gender diverse child, should be taken into consideration (Barrow & Apostle, 2018; Brown & Mar, 2018; Cohen-Kettenis et al., 2003; Hendricks & Testa, 2012; Kaufman & Tishelman, 2018; Ristori & Steensma, 2016; Tishelman & Neumann-Mascis, 2018). This is further elaborated upon in the text below.

It is important HCPs working with gender diverse children strive to understand the child and the family's various aspects of identity and experience: racial, ethnic, immigrant/refugee status, religious, geographic, and socio-economic, for example, and be respectful and sensitive to cultural context in clinical interactions (Telfer et al., 2018). Many factors may be relevant to culture and gender, including religious beliefs, gender-related expectations, and the degree to which gender diversity is accepted (Oliphant et al., 2018). Intersections between gender diversity, sociocultural diversity, and minority statuses can be sources of strength, social stress, or both (Brown & Mar, 2018; Oliphant et al., 2018; Riggs & Treharne, 2016).

Each child, family member, and family dynamic is unique and potentially encompasses multiple cultures and belief patterns. Thus, HCPs of all disciplines should avoid stereotyping based on preconceived ideas that may be incorrect or biased (e.g., that a family who belongs to a religious organization that is opposed to appreciating gender diversity will necessarily be unsupportive of their child's gender diversity) (Brown & Mar, 2018). Instead, it is essential to approach each family openly and understand each family member and family pattern as distinct.

HCPs conducting an assessment with gender diverse children and families need to account for developmental, emotional, and environmental factors that may constrain a child's, caregiver's, sibling or other's report or influence their belief systems related to gender (Riggs & Bartholomaeus, 2018). As with all child psychological assessments, environmental and family/caregiver reactions (e.g., punishment), and/or cognitive and social factors may influence a child's comfort and/or ability to directly discuss certain factors, including gender identity and related issues (Srinath, 2019). Similarly, family members may feel constrained in freely expressing their concerns and ideas depending on family conflicts or dynamics and/or other influences (e.g., cultural/religious; extended family pressure) (Riggs & Bartholomaeus, 2018).

Statement 7.8

We recommend health care professionals consider consultation, psychotherapy, or both for a gender diverse child and family/caregivers when families and health care professionals believe this would benefit the well-being and development of a child and/or family.

The goal of psychotherapy should never be aimed at modifying a child's gender identity (APA, 2021; Ashley, 2019b; Paré, 2020; SAMHSA, 2015; UN Human Rights Council, 2020), either covertly or overtly. Not all gender diverse children or their families need input from MHPs as gender diversity is not a mental health disorder (Pediatric Endocrine Society, 2020; Telfer et al., 2018). Nevertheless, it is often appropriate and helpful to seek psychotherapy when there is distress or concerns are expressed by parents to improve psychosocial health and prevent further distress (APA, 2015). Some of the common reasons for considering psychotherapy for a gender diverse child and family include the following 1) A child is demonstrating significant conflicts, confusion, stress or distress about their gender identity or needs a protected space to explore their gender (Ehrensaft, 2018; Spivey and Edwards-Leeper, 2019); 2) A child is experiencing external pressure to express their gender in a way that conflicts with their self-knowledge, desires, and beliefs (APA, 2015); 3) A child is struggling with mental health concerns, related to or independent of their gender (Barrow & Apostle, 2018); 4) A child would benefit from strengthening their resilience in the face of negative environmental responses to their gender identity or presentation (Craig & Auston, 2018; Malpas et al., 2018); 5) A child may be experiencing mental health and/or environmental concerns, including family system problems that can be misinterpreted as gender congruence or incongruence (Berg & Edwards-Leeper, 2018); and 6) A child expresses a desire to meet with an MHP to get gender-related support. In these situations, the psychotherapy will focus on supporting the child with the understanding that the child's parent(s)/caregiver(s) and potentially other family members will be included as necessary (APA, 2015; Ehrensaft, 2018; McLaughlin & Sharp, 2018). Unless contraindicated, it is extremely helpful for parents/guardians to participate in some capacity in the psychotherapy process involving prepubescent children as family factors are often central to a child's well-being. Although relatively unexplored in research involving gender diverse children, it may be important to attend to the relationship between siblings and the gender diverse child (Pariseau et al., 2019; Parker & Davis-McCabe, 2021).

HCPs should employ interventions tailor-made to the individual needs of the child that are designed to 1) foster protective social and emotional coping skills to promote resilience in the face of potential negative reactions to the child's gender identity, expressions, or both (Craig & Austin, 2016; Malpas et al., 2018; Spencer, Berg et al., 2021); 2) collaboratively problem-solve social challenges to reduce gender minority stress (Barrow & Apostle, 2018; Tishelman & Neumann-Mascis, 2018); 3) strengthen environmental supports for the child and/or members of the immediate and extended family (Kaufman & Tishelman, 2018); and 4) provide the child an opportunity to further understand their internal gender experiences (APA, 2015; Barrow& Apostle, 2018; Ehrensaft, 2018; Malpas et al., 2018; McLaughlin & Sharp, 2018). It is helpful for HCPs to develop a relationship with a gender diverse child and family that can endure over time as needed. This enables the child/family to establish a long-term trusting relationship throughout childhood whereby the HCP can offer support and guidance as a child matures and as potentially

Gender social transition has often been conceived in the past as binary—a girl transitions to a boy, a boy to a girl. The concept has expanded to include children who shift to a nonbinary or individually shaped iteration of gender identity (Chew et al., 2020; Clark et al., 2018). Newer research indicates the social transition process may serve a protective function for some prepubescent children and serve to foster positive mental health and well-being (Durwood et al., 2017; Gibson et al., 2021; Olson et al., 2016). Thus, recognition that a child's gender may be fluid and develop over time (Edwards-Leeper et al., 2016; Ehrensaft, 2018; Steensma, Kreukels et al., 2013) is not sufficient justification to negate or deter social transition for a prepubescent child when it would be beneficial. Gender identity evolution may continue even after a partial or complete social transition process has taken place (Ashley, 2019e; Edwards-Leeper et al., 2018; Ehrensaft, 2020; Ehrensaft et al., 2018; Spivey & Edwards-Leeper, 2019). Although empirical data remains limited, existing research has indicated children who are most assertive about their gender diversity are most likely to persist in a diverse gender identity across time, including children who socially transition prior to puberty (Olson et al., 2022; Rae et al., 2019; Steensma, McGuire et al., 2013). Thus, when considering a social transition, we suggest parents/caregivers and HCPs pay particular attention to children who consistently and often persistently articulate a gender identity that does not match the sex designated at birth. This includes those children who may explicitly request or desire a social acknowledgement of the gender that better matches the child's articulated gender identity and/or children who exhibit distress when their gender as they know it is experienced as incongruent with the sex designated at birth (Rae et al., 2019; Steensma, Kreukels et al., 2013).

Although there is a dearth of empirical literature regarding best practices related to the social transition process, clinical literature and expertise provides the following guidance that prioritizes a child's best interests (Ashley, 2019e; Ehrensaft, 2018; Ehrensaft et al, 2018; Murchison et al., 2016; Telfer et al., 2018): 1) social transition should originate from the child and reflect the child's wishes in the process of making the decision to initiate a social transition process; 2) an HCP may assist exploring the advantages/benefits, plus potential challenges of social transition; 3) social transition may best occur in all or in specific contexts/settings only (e.g., school, home); and 4) a child may or may not choose to disclose to others that they have socially transitioned, or may designate, typically with the help of their parents/caregivers, a select group of people with whom they share the information.

In summary, social transition, when it takes place, is likely to best serve a child's well-being when it takes place thoughtfully and individually for each child. A child's social transition (and gender as well) may evolve over time and is not necessarily static, but best reflects the cross-section of the child's established self-knowledge of their present gender identity and desired actions to express that identity (Ehrensaft et al., 2018).

A social transition process can include one or more of a number of different actions consistent with a child's affirmed gender (Ehrensaft et al., 2018), including:

- Name change;
- Pronoun change;
- Change in sex/gender markers (e.g., birth certificate; identification cards; passport; school and medical documentation; etc.);
- Participation in gender-segregated programs (e.g., sports teams; recreational clubs and camps; schools; etc.);
- Bathroom and locker room use;
- Personal expression (e.g., hair style; clothing choice; etc.);
- Communication of affirmed gender to others (e.g., social media; classroom or school announcements; letters to extended families or social contacts; etc.).

Statement 7.13

We recommend health care professionals and parents/caregivers support children to continue to explore their gender throughout the pre-pubescent years, regardless of social transition.

It is important children who have engaged in social transition be afforded the same opportunities as other children to continue considering

meanings and expressions of gender throughout their childhood years (Ashley 2019e; Spencer, Berg et al., 2021). Some research has found children may experience gender fluidity or even detransition after an initial social transition. Research has not been conclusive about when in the life span such detransition is most likely to occur, or what percentage of youth will eventually experience gender fluidity and/or a desire to detransition—due to gender evolution, or potentially other reasons (e.g., safety concerns; gender minority stress) (Olson et al., 2022; Steensma, Kreukels et al., 2013). A recent research report indicates in the US, detransition occurs with only a small percentage of youth five years after a binary social transition (Olson et al., 2022); further follow-up of these young people would be helpful. Replication of these findings is important as well since this study was conducted with a limited and self-selected participant pool in the US and thus may not be applicable to all gender diverse children. In summary, we have limited ability to know in advance the ways in which a child's gender identity and expressions may evolve over time and whether or why detransition may take place for some. In addition, not all gender diverse children wish to explore their gender (Telfer et al., 2018). Cisgender children are not expected to undertake this exploration, and therefore attempts to force this with a gender diverse child, if not indicated or welcomed, can be experienced as pathologizing, intrusive and/or cisnormative (Ansara & Hegarty, 2012; Bartholomaeus et al., 2021; Oliphant et al., 2018).

Statement 7.14

We recommend health care professionals discuss the potential benefits and risks of a social transition with families who are considering it.

Social transition in prepubescent children consists of a variety of choices, can occur as a process over time, is individualized based on both a child's wishes and other psychosocial considerations (Ehrensaft, 2018), and is a decision for which possible benefits and challenges should be weighted and discussed.

A social transition may have potential benefits as outlined in clinical literature (e.g., Ehrensaft et al., 2018) and supported by research (Fast & Olson, 2018; Rae et al., 2019). These include facilitating gender congruence while reducing gender dysphoria and enhancing psychosocial adjustment and well-being (Ehrensaft et al., 2018). Studies have indicated socially transitioned gender diverse children largely mirror the mental health characteristics of age matched cisgender siblings and peers (Durwood et al., 2017). These findings differ markedly from the mental health challenges consistently noted in prior research with gender diverse children and adolescents (Barrow & Apostle, 2018) and suggest the impact of social transition may be positive. Additionally, social transition for children typically can only take place with the support and acceptance of parents/caregivers, which has also been demonstrated to facilitate well-being in gender diverse children (Durwood et al., 2021; Malpas et al., 2018; Pariseau et al., 2019), although other forms of support, such as school-based support, have also been identified as important (Durwood et al., 2021; Turban, King et al., 2021). HCPs should discuss the potential benefits of a social transition with children and families in situations in which 1) there is a consistent, stable articulation of a gender identity that is incongruent with the sex assigned at birth (Fast & Olson, 2018). This should be differentiated from gender diverse expressions/behaviors/interests (e.g., playing with toys, expressing oneself through clothing or appearance choices, and/or engaging in activities socially defined and typically associated with the other gender in a binary model of gender) (Ehrensaft, 2018; Ehrensaft et al., 2018); 2) the child is expressing a strong desire or need to transition to the gender they have articulated as being their authentic gender (Ehrensaft et al., 2018; Fast & Olson, 2018; Rae et al., 2019); and 3) the child will be emotionally and physically safe during and following transition (Brown & Mar, 2018). Prejudice and discrimination should be considerations, especially in localities where acceptance of gender diversity is limited or prohibited (Brown & Mar, 2018; Hendricks & Testa, 2012; Turban, King et al., 2021). Of note, there can also be possible risks to a gender diverse child who does not socially transition, including 1) being ostracized or bullied for being perceived as not conforming to prescribed community

(e.g., autocastration or autopenectomy; Brown, 2010; Edmo v. Idaho Department of Corrections, 2020; Maruri, 2011). It is not uncommon for residents of institutions to be denied access to evaluation for gender-affirming surgery as well as denial of the treatment itself, even when medically necessary (Kosilek v. Massachusetts/Dennehy, 2012; Edmo v. Idaho Department of Corrections, 2020). The denial of medically necessary evaluations for and the provision of gender-affirming surgical treatments and necessary aftercare is inappropriate and inconsistent with these Standards of Care.

Statement 11.5

We recommend administrators, health care professionals, and all others working in institutions charged with the responsibility of caring for TGD individuals allow those individuals who request appropriate clothing and grooming items to obtain such items concordant with their gender expression.

Gender expression refers to people having hairstyles, grooming products, clothing, names, and pronouns associated with their gender identity in their culture and/or community (American Psychological Association, 2015; Hembree et al., 2017). Gender expression is the norm among most people within a culture or a community. Social transition is the process of TGD persons beginning and continuing to express their gender identity in ways that are authentic and socially perceptible. Often, social transition involves behavior and public presentation differing from what is usually expected for people assigned a given legal gender marker at birth. A gender marker is the legal label for a person's sex that is typically assigned or designated at birth on official documents (American Psychological Association, 2015). This is most commonly recorded as male or female but also intersex or "X" in some nations and jurisdictions. TGD individuals need the same rights to gender expression afforded cisgender people living both outside and inside institutional settings. Staff acceptance of social transition also sets a tone of respect and affirmation that may enhance respect and affirmation with others residing in the institution, thereby increasing safety and reducing some aspects of gender incongruence.

Research indicates social transition and congruent gender expression have a significant beneficial effect on the mental health of TGD people (Bockting & Coleman, 2007; Boedecker, 2018; Devor, 2004; Glynn et al., 2016; Russell et al., 2018). To allow for expressing gender identity, these recommendations include being allowed to wear gender congruent clothing and hairstyles, to obtain and use gender-appropriate hygiene and grooming products, to be addressed by a chosen name or legal last name (even if unable to change the assigned name legally yet), and to be addressed by a pronoun consistent with one's identity. These elements of gender expression and social transition, individually or collectively as indicated by the individual's needs, reduce gender dysphoria/incongruence, depression, anxiety, self-harm ideation and behavior, suicidal ideation and attempts (Russell et al., 2018). Furthermore, these elements of congruent gender expression enhance well-being and functioning (Glynn et al., 2016).

Statement 11.6

We recommend all institutional staff address TGD individuals by their chosen names and pronouns at all times.

Given that an increasing percentage of people openly identify as gender diverse, there is a need to develop and implement practices and policies that meet the needs of these people irrespective of where they live (McCauley et al., 2017). For example, institutions should utilize medical and administrative records systems for their residents that track gender markers consistent with gender identity and not solely sex assigned at birth. In developing these recommendations, there was recognition that gender expansiveness can challenge some institutional norms where TGD people live. However, all institutions have the responsibility to provide for the safety and well-being of all persons living therein (Australia, 2015; Corrective Services New South Wales, 2015; Edmo v. Idaho Department of Corrections, 2020; Kosilek v. Massachusetts, 2002; NCCHC, 2015). Sevelius and colleagues (2020) demonstrated correct pronoun usage is gender-affirming for

Exhibit “C”

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5.14 GENDER VARIANCE AND GENDER DYSPHORIA

CHAPTER 5.14 ■ GENDER DYSPHORIA AND GENDER INCONGRUENCE

JACK L. TURBAN III, ANNELOU L. C. DE VRIES, AND KENNETH J. ZUCKER

INTRODUCTION

Transgender (gender incongruent) youth include children and adolescents who experience a marked incongruence between their gender assigned at birth and their gender identity (1). Since the last edition of this volume, which was published 10 years ago (2), there has been a remarkable increase in attention to transgender issues across the life span. Television has begun to highlight transgender individuals from childhood to adulthood (3,4). News outlets from *The New York Times Magazine* to *Le Monde* have explored the life experiences of transgender youth (5–7). Legislative bodies have examined transgender rights through restroom access, hate crime legislation, insurance regulations, and antidiscrimination policies, with physicians playing key roles in these discussions (8). Parallel to this growing attention, there has been a marked increase in the establishment of specialized gender identity clinics for children and adolescents in North America and in Europe (9), which likely reflects the marked increase in referrals that has been noted internationally (10–12). At the same time, the scientific literature on gender incongruence has expanded as well,

TABLE 5.14.1

TERMINOLOGY

Term	Definition
Gender assigned at birth/natal sex/ birth sex	Gender assigned to an infant at birth, generally based on physical characteristics (genitalia, etc.)
Experienced gender/gender identity	An individual's psychological understanding of one's own gender
Affirmed gender	An individual's psychological understanding of one's own gender, typically referring to one who lives socially as that understood gender
Sexuality/sexual orientation	Refers to the types of individuals toward whom one is romantically and/or sexually attracted
Transgender	Refers to an individual whose gender identity is incongruent with that of one's gender assigned at birth. Sometimes also used as a term for an individual whose gender identity is binary opposite one's gender assigned at birth.
Gender dysphoria	Refers to psychological distress in relationship to one's experienced gender; is also the classification used in the DSM 5 (requiring fulfillment of certain clinical criteria)
Cisgender	Refers to an individual whose experienced gender matches that of one's gender assigned at birth
Gender non-conforming/gender variant	Refers to variation from developmental norms in gender role behavior that may be considered as nongender stereotypical. This may include identifying as both genders or identifying with neither gender, among others.
Transsexual	Typically used to refer to individuals who desire medical interventions to align their physiologies with the gender identities. This term is used synonymously with transgender by some and has largely fallen out of favor (though it was used commonly in the past).

with a flux of new studies on co-occurring psychological functioning, long-term follow-up studies, biologic correlates, and outcomes of medical interventions. Practicing child and adolescent psychiatrists should be familiar with the basics of this field to appropriately assess and treat these patients.

TERMINOLOGY AND DEFINITIONS

Terminology in this specialized area is continuously evolving. This section describes terms and definitions that are in most common usage at this time, but different regions, cultures, and families may have their own preferred terminology (Table 5.14.1).

The term *gender assigned at birth* refers to a newborn's gender (boy, girl, indeterminate), as generally declared by a medical professional. Other relevant terms include *natal sex* and *birth sex*. The term *biologic sex* is somewhat vague, as it is unclear whether it would be based on karyotyping of the sex chromosomes, internal reproductive structures, the configuration of the external genitalia, etc. The vast majority of newborns are assigned the gender of boy or girl through prenatal diagnostics or, at birth, based on genital anatomy. A small number of newborns may be classified as having a "disorder of sex development" (DSD), or what others have called "differences of sex development" (13), congenital conditions in which biologic parameters of sex (e.g., the sex chromosomes, the gonads or the configuration of the external genitalia, etc.) are incongruent with one another. These conditions include complete or partial androgen insensitivity syndrome, mixed gonadal dysgenesis, 5-alpha-reductase deficiency, penile agenesis, and congenital adrenal hyperplasia (CAH), among others. Such patients may experience gender identity issues that can be unique from those experienced by those without a DSD (14).

Experienced gender refers to one's gendered sense of self as a boy, as a girl, or some alternative gender that is different from the traditional boy–girl dichotomy (e.g., "gender fluid," "agender," or "nonbinary"). Other terms include *affirmed gender* (typically used for individuals who have transitioned socially to living as the desired gender). For the majority of individuals, experienced gender matches the gender assigned at birth. These individuals are referred to as *cisgender*. For some patients, experienced gender is opposite from the gender assigned at birth, and these individuals are referred to as *transgender*.

Transgender, gender variant, and *gender nonconforming* are sometimes used as terms for individuals whose experienced gender does not strictly match that of their gender assigned at birth. One who experiences psychological distress in relation to one's gender identity may be referred to as *gender dysphoric*. Gender dysphoria is the diagnostic term that has been adopted in the DSM-5 (see below) (1).

Sexual attraction or *sexual orientation* is a separate concept from gender identity. Sexual orientation refers to the types of individuals toward whom one is romantically or sexually attracted. Terms such as androphilia (attraction to males), gynephilia (attraction to females), biphilia (attraction to males and females), and aphilia (attraction to neither males nor females) are used more commonly nowadays, slowly replacing older terms such as heterosexual, bisexual, homosexual, and asexual. In the scientific literature, the sexual orientation of individuals who identify as transgender can be described in relation to their experienced gender or their gender assigned at birth. For example, an adolescent female who identifies as male and is sexually attracted to females can be described as "heterosexual" in relation to experienced gender but as "homosexual" in relation to birth sex (15). From either a clinical or research perspective, it is critical to identify the referent in describing a patient's sexual orientation. Most individuals who identify as transgender will describe their sexual orientation in relation to their gender identity, not their gender assigned at birth (e.g., a transgender woman who is attracted to men would likely consider herself to be heterosexual).

The "genderbread person" has been developed as an educational tool to clarify the distinctions among *gender assigned at birth, experienced gender,* and *sexual orientation* (Figure 5.14.1). Note that as a published educational instrument, this graphic diverges somewhat from the contemporary terminology we described above. Nonetheless, this tool has proven useful for introducing this terminology to families and students new to the topics of gender and sexuality.

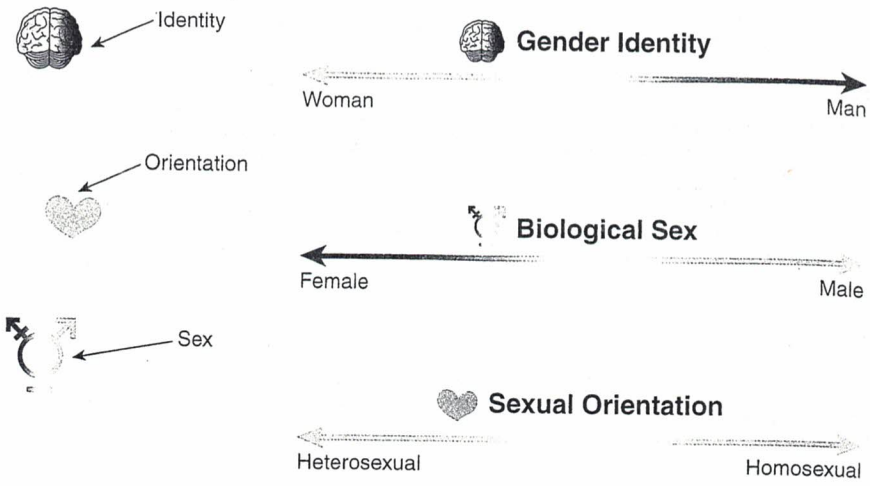

FIGURE 5.14.1. The Genderbread Person. The genderbread person is an educational tool used to explain the distinctions between experienced gender (termed gender identity here), gender assigned at birth (termed biological sex here), and sexual or romantic orientation. This educational tool may be useful for students new to the field and when explaining these phenomena to families with gender incongruent and gender dysphoric children. These terms are further described in Table 5.14.1. (Modified from Killermann S. (2016). *The Genderbread Person.* Available at: itspronouncedmetrosexual.com)

HISTORY OF GENDER IDENTITY AND MEDICINE

John Money (1921–2006) was a psychologist and sexologist whose empirical and theoretical contributions regarding gender identity, gender role, and gender development were innovative and of great influence, beginning in the 1950s. Money originally proposed a theory of "gender neutrality," suggesting that gender identity was predominantly determined by social factors, including the gender assigned at birth and subsequent socialization processes (16). Money proposed that, for individuals with a DSD, early surgical interventions to correct genital ambiguity were often needed so that a child could then be supported with rearing in the gender assigned at birth.

Over the past few decades, Money's original theory of gender neutrality at birth has been challenged by various lines of evidence suggesting the importance of biologic factors, particularly patterns of prenatal hormone exposure, in also contributing to gender identity formation and differentiation. For example, chromosomal females with CAH, assigned female at birth are exposed to elevated levels of prenatal testosterone and many of these girls are behaviorally masculinized and a higher percentage than the general population develop gender dysphoria and transition from male to female (17,18).

Perhaps the most widely cited case pertains to a biologically "normal" male (one of a pair of identical twins) who, after a circumcision accident at the age of 7 months led to penile ablation, underwent a vaginoplasty and was socially reassigned to female at the age of 17 months (19,20).

Although this patient was described by Money (21) as a "tomboy" during childhood, subsequent follow-up revealed that the patient rejected estrogen therapy at the time of puberty and subsequently transitioned back to living as a male (19,20). Tragically, this patient committed suicide at the age of 38 (22). The "John–Joan" case, as it was called, has been used as evidence of the importance of biologic factors in contributing to a person's sense of gender identity. A subsequent summary of seven similar such patients reared as female after traumatic loss of the penis have shown both male and female gender identities in adolescence and adulthood, further complicating the picture (23).

In the 1960s, research into the developmental histories of adults with "transsexualism" suggested that childhood cross-gender identification was common in these individuals (24). This work was then followed by research with children who showed patterns of gender-related behavior similar to the recalled patterns of transsexual adults (24). During this period, there was much less attention given to adolescents with a marked history of cross-gender identification.

By the late 1990s, however, more attention was given to adolescents with a DSM diagnosis of gender identity disorder, including the possibility of treatments with gonadotropin-releasing hormone analogs (GnRHa), as reported by a research team in the Netherlands (25). This approach, described below, was ultimately outlined in the 2009 Endocrine Society Guidelines for the Treatment of Transsexual Persons (26) and in the periodically updated Standards of Care by the World Professional Association for Transgender Health (27). Research into these hormonal interventions has since garnered significant attention, including increased NIH funding to study the long-term benefits and risks of these endocrine treatments (28).

DIAGNOSIS AND ASSESSMENT

Gender identity diagnoses first entered the DSM in its third edition with three diagnoses: transsexualism, gender identity disorder of childhood, and atypical gender identity disorder. The essential feature of these three diagnoses was "an incongruence between anatomic sex and gender identity" (29). Revisions in the DSM-III-R were modest, though in this edition, exclusion of individuals with schizophrenia or a DSD was removed, noting that individuals with either of these diagnoses could also have a gender identity disorder (30).

In the DSM-IV, the three diagnoses from DSM-III were collapsed into the overarching diagnosis "gender identity disorder" with distinct criteria sets for children versus adolescents and adults. This edition also added a criterion stating "The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning" (31).

The DSM-5 renamed "gender identity disorder" as "gender dysphoria," aiming to decrease stigma associated with the diagnosis while maintaining a diagnosis that could be used to secure

access to care for those who needed it (32). The DSM-5 removed sexual orientation subtyping, but noted in the text its relevance in understanding variations in developmental trajectories and for research on biologic factors and long-term outcomes (1). The DSM-5 also made an effort to make the childhood diagnosis stricter, requiring more than just gender nonconforming behavior. The new criteria required that a child expresses an actual desire or insistence of being the other gender. The adolescent and adult criteria simultaneously became more inclusive, allowing for nonbinary gender identities that would allow for gender variant, but not strictly binary, transgender adolescents and adults to receive the diagnosis and subsequently access to care.

Current DSM-5 criteria for gender dysphoria in children require a marked incongruence between one's experienced/expressed gender and assigned gender, of at least 6 months' duration, as evidenced by at least six of eight criteria, one of which must be a strong desire to be of the other gender or an insistence that one is the other gender (or some alternative gender different from one's assigned gender) (1). Additionally, the patient must experience clinically significant distress or impairment in social, school, or other important areas of functioning as introduced in the DSM-IV (Table 5.14.2). DSM-5 criteria for gender dysphoria in adolescents and adults are similar, though with different requirements for the manifestation of gender dysphoria. This diagnosis requires at least two of six manifestations (Table 5.14.3). For a summary and rationale for the DSM-5 changes, see Zucker et al. (33).

Some have argued for use of the term "gender incongruence," including the Working Group on Sexual Disorders and Sexual Health for the forthcoming 11th edition of the

TABLE 5.14.2

DSM-5 CRITERIA FOR GENDER DYSPHORIA IN CHILDREN AND IN ADOLESCENTS AND ADULTS

Diagnostic Criteria

Gender Dysphoria in Children

302.6 (F64.2)

A. A marked incongruence between one's experienced/expressed gender and assigned gender, of at least 6 months' duration, as manifested by at least six of the following (one of which must be Criterion A1):
   1. A strong desire to be of the other gender or an insistence that one is the other gender (or some alternative gender different from one's assigned gender).
   2. In boys (assigned gender), a strong preference for cross-dressing or simulating female attire; or in girls (assigned gender), a strong preference for wearing only typical masculine clothing and a strong resistance to the wearing of typical feminine clothing.
   3. A strong preference for cross-gender roles in make-believe play or fantasy play.
   4. A strong preference for the toys, games, or activities stereotypically used or engaged in by the other gender.
   5. A strong preference for playmates of the other gender.
   6. In boys (assigned gender), a strong rejection of typically masculine toys, games, and activities and a strong avoidance of rough-and-tumble play; or in girls (assigned gender), a strong rejection of typically feminine toys, games, and activities.
   7. A strong dislike of one's sexual anatomy.
   8. A strong desire for the primary and/or secondary sex characteristics that match one's experienced gender.

B. The condition is associated with clinically significant distress or impairment in social, school, or other important areas of functioning.

Specify if:

- With a disorder of sex development (e.g., a congenital adrenogenital disorder such as 255.2 [E25.0] congenital adrenal hyperplasia or 259.50 [E34.50] androgen insensitivity syndrome).
- Coding note: Code the disorder of sex development as well as gender dysphoria.

Gender Dysphoria in Adolescents and Adults

302.85 (F64.1)

A. A marked incongruence between one's experienced/expressed gender and assigned gender, of at least 6 mo duration, as manifested by at least two of the following:
   1. A marked incongruence between one's experienced/expressed gender and primary and/or secondary sex characteristics (or in young adolescents, the anticipated secondary sex characteristics).
   2. A strong desire to be rid of one's primary and/or secondary sex characteristics because of a marked incongruence with one's experienced/expressed gender (or in young adolescents, a desire to prevent the development of the anticipated secondary sex characteristics).
   3. A strong desire for the primary and/or secondary sex characteristics of the other gender.
   4. A strong desire to be of the other gender (or some alternative gender different from one's assigned gender).
   5. A strong desire to be treated as the other gender (or some alternative gender different from one's assigned gender).
   6. A strong conviction that one has the typical feelings and reactions of the other gender (or some alternative gender different from one's assigned gender).

B. The condition is associated with clinically significant distress or impairment in social, occupational, or other important areas of functioning.

Specify if:

- **With a disorder of sex development** (e.g., a congenital adrenogenital disorder such as 255.2 [E25.0] congenital adrenal hyperplasia or 259.50 [E34.50] androgen insensitivity syndrome).
- **Coding note:** Code the disorder of sex development as well as gender dysphoria.

Specify if:

- **Posttransition:** The individual has transitioned to full-time living in the desired gender (with or without legalization of gender change) and has undergone (or is preparing to have) at least one cross-sex medical procedure or treatment regimen—namely regular cross-sex hormone treatment or gender reassignment surgery confirming the desired gender (e.g., penectomy, vaginoplasty in a natal male; mastectomy or phalloplasty in a natal female).

TABLE 5.14.3

TREATMENT OF TRANSGENDER YOUTH

Timing	Intervention
Prepubertal	No endocrine intervention recommended. Patient should have regular psychotherapy to discuss gender identity and assess possible future need for hormonal intervention.
Early signs of puberty	Pubertal blockade with gonadotropin-releasing hormone analogs to prevent the development of secondary sex characteristics and provide additional time for psychotherapy and consideration regarding partially reversible interventions.
Age 14+ or 16+, depending on the center	Cross-sex hormonal therapy with estrogen or testosterone. Less frequently with other endocrine-acting medications that have less favorable side effect profiles.
Age 18 for most centers	Gender-affirming surgeries may be considered. Note that some surgeries may be performed earlier for select patients (generally mastectomies for transgender males).

International Classification of Diseases. This group suggested that the term gender incongruence highlights that not all transgender individuals experience dysphoria. The group noted that the term gender dysphoria might increase inappropriate stigmatization and pathologization. Only for the practical purpose of preserving access to medical care did the group recognize the necessity of classification. The group additionally argued that the diagnosis be moved out of the chapter on mental health and behavioral disorders and into another section, provisionally termed Conditions Related to Sexual Health (34).

EPIDEMIOLOGY OF GENDER DYSPHORIA AND GENDER NONCONFORMITY

A range of methodologic challenges, including but not limited to shifting terminology and stigma associated with self-identification, have made it difficult to establish the true prevalence of gender dysphoria or gender incongruence.

Prevalence in Adults

In adults, most studies have used the numbers of individuals that seek out clinical care for gender-affirming treatment as a proxy for determining prevalence in a certain country or catchment area. A recent meta-analysis based on 21 studies that applied this method concluded that the prevalence of transsexualism (the definition used in most of these studies) was 6.8 transwomen in 100,000 gender at birth-assigned males (1:14,705) and 2.6 transmen in 100,000 gender at birth-assigned females (1:38,461) (35). A time trend was also found, with recent studies reporting higher prevalence rates. These studies are, of course, limited by the fact that they do not include transgender individuals who do not seek medical care. Indeed, much higher prevalence rates, ranging from 4.2% having an ambivalent gender identity to around 0.5% identifying as transgender and considering medical interventions, are suggested by recent studies that have used broader definitions and probability samples (36–38). A recent population-based survey in the United States found that 0.6% of adults self-identified as transgender, with rates ranging from 0.3% to 0.8% in the states for which data were available. Compared to the older age groups, young adults between 18 and 24 years old were most likely to identify as transgender (39).

Prevalence in Children and Adolescents

Although formal epidemiologic studies of gender dysphoria in children and adolescents have not been conducted, looser or more liberal definitions of "caseness" in children and adolescents have been examined in several recent studies. In a random sample of 2,730 grade 6 to 8 students from San Francisco, Shields et al. (40) found that 1.3% self-identified as "transgender" in response to the question "What is your gender?," with the other response options being female or male. In a random sample of 8,166 high school students from New Zealand, Clark et al. (41) found that 1.2% self-identified as transgender and 2.5% reported that they were not sure about their gender, in response to the question "Do you think you are a transgender?" which was followed by a definition of the term. Interestingly, another 1.7% reported that they did not understand the question.

In the 1999 standardization sample of the Child Behavior Checklist (CBCL) for children aged 6 to 18 years and the Youth Self-Report (YSR) form, aged 11 to 18 years, there is one item pertaining to gender identity ("Wishes to be of opposite sex") (42). On the CBCL (total $N = 3,210$), less than 1% of parents of nonreferred boys and 1.2% of nonreferred girls endorsed this item as either somewhat or sometimes true or very true or often true. The percentages were higher for referred boys and girls (2.8% and 5.4%, respectively). On the YSR, about 10% of nonreferred girls and 2% of nonreferred boys endorsed this item compared to about 18% of referred girls and 3% of referred boys. In the prior 1991 CBCL standardization sample, two age groups were reported (4 to 11 and 12 to 18). For the 4 to 11 year olds, 1% of parents of nonreferred boys and girls endorsed this item compared to 3% and 5% of referred boys and girls. For the 12 to 18 year olds, none of the parents endorsed this item for nonreferred boys and girls compared to 2% and 5% of referred boys and girls. Consistent with the original CBCL and YSR standardization studies, two consistent findings emerge: the item is endorsed more often for girls than for boys and it is endorsed more often for referred than for nonreferred children and adolescents.

Gender Assigned at Birth Ratio

Of prepubertal children referred to gender identity clinics, the majority has a male gender assigned at birth. Among 577 Canadian children referred to a gender identity clinic between 1976 and 2011, the male-to-female ratio was 4.49:1 (12). This was significantly higher than the 2.02:1 ratio in the Netherlands (12). These differences are theorized, in part, to be a reflection of increased parental anxiety regarding gender-variant behavior in males compared to females, particularly in North America. For adolescents with gender dysphoria, the gender ratio is much closer to 1:1 and appears to be more consistent across nations (10). Of note, however, there has been a recent temporal shift from more birth-assigned males (prior to 2006) to more birth-assigned females (2006 to 2013), though the ratio remains closer to 2:1 in either direction (10).

BIOLOGIC AND PSYCHOSOCIAL DETERMINANTS

The etiology of cross-gender identification and behavior continues to be elusive. While psychological and social factors were once the focus of study, especially in normative gender development, attention has shifted to biologic mechanisms more recently. At present, the evidence suggests that both psychosocial and biologic elements are involved. A monocausal mechanism is unlikely and gender dysphoria most likely results from a complex interaction between these factors (43).

Biologic Factors

Twin studies suggest a strong heritable component with additional environmental contributors. In a large-scale CBCL study of Dutch twins (N = 23,393) ages 7 and 10 (44), monozygotic (MZ) and dizygotic (DZ) twins were compared and estimated genetic factors contributed to 70% of cross-gender behavior (as assessed via the two CBCL gender items). Another study of 314 MZ and DZ twins (mean ages 9.4 and 10.1 years, respectively) roughly replicated this finding, with genetic factors contributing to 62% of the variance on a DSM-IV-based gender dysphoria scale (45). In a third study of 3,337 Japanese MZ and DZ twins ranging in age from 3 to 26 years (46), there was also strong evidence for genetic factors for females, but much less so for males.

Many studies, both in animals and humans, have shown that differences in brain anatomy and function in cis-gender males and females underlie the sex differences in their behavioral (47). Sex hormones play an important role in these differences. The *organizational* effect, predominantly prenatally but also during puberty, leads to the sex differences in brain structures. On average, males have larger brain volumes, more white matter, gray matter, and cerebrospinal fluid than females, although when corrected for total volume, females have more gray matter and a larger volume of the cortex (48–50).

The sexual differentiation hypothesis suggests that transgender individuals may have brain structures and brain functioning more closely aligned with their experienced gender (51). Postmortem studies have suggested a sex reversal in several hypothalamic nuclei in transgender adults (52,53). More recent neuroimaging techniques have allowed the in vivo study of brain morphology and functioning of larger numbers of adolescents and adults with gender incongruent feelings (50,54). Findings of these studies are more mixed. Before they received any medical gender affirmative treatment, brain anatomy with regard to volume, gray and white matter, and cerebrospinal fluid did not differ compared to their birth-assigned sex (50). Differences are, however, found with regard to the white matter microstructure, with results of transgender individuals in between males and females (50). In the realm of functional neuroimaging, task-related imaging studies show that transgender people may have either similar reactions as their experienced gender (e.g., smelling odorous steroids (55)) or activity different from their assigned gender as well as their experienced gender (e.g., mental rotation (56)), or not different from their assigned gender (e.g., verbal fluency (57)). The results so far show that we are still far away from a situation where imaging or other medical testing may serve as a diagnostic tool.

In animal studies, where prenatal hormones can be manipulated, the strong effect of prenatal testosterone on gender role behavior is clear (47). The effects on gender identity, however, can only be studied in humans. Individuals with DSD may be exposed to high levels of prenatal testosterone, and XX individuals with CAH (58) indeed have higher rates of gender dysphoria and cross-gender identification (18). The majority of female-raised individuals with CAH (~95%), however, appear to develop a female gender identity (17). Other evidence for the importance of prenatal testosterone comes from studies in XY individuals with complete androgen insensitivity syndrome (CAIS) who lack the receptors necessary to respond to endogenous testosterone. The vast majority of these patients develop a female gender identity, suggesting that downstream testosterone signaling may be important for the development of a male gender identity (59). Others have noted that these patients are reared unambiguously as females and that social factors may play a strong role in their female identity formation (60). Some studies have shown that those with CAIS have lower scores on tests of female identity scales (61) and there have been some case reports of gender dysphoria ultimately leading to gender-affirming surgeries (62). This notably could be secondary to the psychological stress of learning about the diagnosis, as well as the possibility of undetected functional androgen receptors (43). Overall, studies of gender identity in individuals with DSD, while implicating androgens in the development of gender identity, have yet to show a simple direct relationship.

Psychosocial Factors

Past literature has investigated the potential role of parental characteristics on the development of gender dysphoria (maternal wish for a child of the opposite gender, paternal absence, and parental psychological functioning, among others). None of these hypotheses have been validated (43). Mothers of gender dysphoric boys have been noted to have higher scores on the Beck Depression Inventory and the Diagnostic Interview for Borderlines (63), but these higher scores might be due to external pressures placed on these parents by unaccepting social environments and such studies cannot determine the direction of causation. One study noted that gender dysphoric boys were rated as more feminine and "beautiful" by blinded college students (64) while another study of gender dysphoric girls showed that these girls were rated as less "cute" (65), raising the question of whether perceived physical appearance and resultant social treatment may contribute to gender incongruence. An alternative interpretation of this data is that those with a more male gender identity might alter their appearances to appear more "masculine" (e.g., culturally masculine haircuts) while those with a more female gender identity alter their appearances to appear more "feminine" (66). Some have suggested that a lack of parental limit-setting, particularly around cross-gender behavior, is associated with gender dysphoria (67), though this again does not prove causation, as more insistence on cross-gender behavior (i.e., transgender identity or stronger cross-gender behavior preferences) may make this limit-setting more difficult. Overall, there have been no proven causative psychosocial factors in the development of gender incongruence. Since studies on normative gender identity development show that cognitive psychological factors and social environment play a role, this may also be the case for gender nonconforming development.

CLINICAL COURSE

Persistence of Gender Dysphoria from Childhood to Adolescence

The natural history of gender identity for children who express gender nonconforming or transgender identities is an area of active research (68). To date, the long-term follow-up studies of clinic-referred children have been based on samples that have

included children who were either threshold or subthreshold for the gender identity diagnosis in DSM-III, III-R, or IV and some of the earliest studies began prior to the availability of formal diagnostic criteria.

These follow-up studies have classified participants as either "persisters" or "desisters" with regard to their cross-gender identification, using various metrics (semi-structured interviews based on DSM criteria for gender identity disorder, dimensional scores on standardized questionnaires, etc.). Ristori and Steensma (69) have provided the most recent summary of 10 follow-up studies, in which the percentage of participants classified as persisters ranged from 2% to 39% (collapsed across natal boys and girls). In one study (70), the percentage of natal girls who were persisters appeared to be substantially higher than the percentage of natal boys (50% vs. 12%), but in two other studies from the same clinic, the percentage was similar across natal sex (71,72).

One criticism of these studies is that either formal diagnostic criteria were not used (because they were not available at the time of the study) or that subthreshold cases were included. Some studies have found that threshold cases were more likely to be classified as persisters (73), but other studies have not (72). It has also been suggested that more recent cohorts (after the year 2000) have found higher rates of persistence (12% to 39% (61,64–66)) than older cohorts (2% to 9% prior to 2000 (74,75)); however, it is not clear if such differences are related to variations in sampling procedures or something more substantive. Comparisons of persisters with desisters have found that the intensity of gender dysphoria (using dimensional metrics), older age at the time of assessment in childhood, a lower social class background, and having a female gender assigned at birth are associated with higher rates of persistence (72,73). Despite this work, it remains difficult to predict, for an individual child, the likelihood of cross-gender identification persistence from childhood into adolescence (73).

Persistence of Gender Dysphoria from Adolescence to Adulthood

In contrast to the low rates of persistence from childhood into adolescence, it appears that the vast majority of transgender adolescents persist in their transgender identity (76).

Childhood Gender-Variant Behavior and Sexual Orientation

Childhood gender-variant behavior has been found to be a strong predictor of a same-sex sexual orientation (using gender assigned at birth as a reference point) in adults. In a study of 879 Dutch boys and girls, gender-variant behavior was assessed using the CBCL and sexual orientation was assessed 24 years later (77). It was found that the prevalence of a same-sex sexual orientation was, depending on the domain (attraction, fantasy, behavior, and identity), between 8.4 and 15.8 times higher in the gender-variant subgroup as compared to the nongender-variant subgroup. In summary, the current literature, though limited as described above, suggests that the majority of gender incongruent prepubescent children will grow up to identify as cisgender individuals with either a bisexual or a same-sex sexual orientation (70,72,74).

ASSOCIATED COEXISTING PSYCHIATRIC CONDITIONS AND BEHAVIORS

Children and adolescents with gender incongruence exhibit higher internalizing and externalizing psychopathology as compared to nonreferred controls, with internalizing psychopathology being more common, particularly in natal boys (78–84). One hypothesis is that this problem behavior is a result of minority stress and dysphoria toward their gender assigned at birth. These individuals are also subjected to rates of peer bullying as high as 80% (85). Poor peer relations is one of the strongest investigated predictors for behavioral and emotional problems in gender incongruent youth (79). In a study of 105 gender dysphoric Dutch adolescents whose parents completed the Diagnostic Interview Schedule for Children (DISC), 32.4% had one or more psychiatric disorders, with 21% suffering from anxiety, 12.4% from mood disorders, and 11.4% from disruptive disorders (85). A study with the same DISC measure in prepubertal children revealed higher percentages, with 52% having one or more psychiatric disorders other than GD (80).

Chart review studies of gender incongruent youth presenting to specialized gender identity clinics have shown similarly high or even higher rates of psychiatric conditions: mood (12.4% to 64%), anxiety (16.3% to 55%), and disruptive disorders (9% to 11.4%) (82,83,86–88). The prevalence range across studies may be secondary to cultural differences, differing diagnostic criteria, and differing ages of clinical populations. These psychiatric conditions appear to become more common in gender incongruent individuals with increasing age. Some studies have shown that older transgender youth suffer a greater burden of co-occurring psychiatric conditions (82), and that gender incongruent adults suffer a greater burden of co-occurring psychiatric conditions as compared to adolescents (89).

Self-harming Behavior and Suicidality

Self-harming behavior and suicide attempts are prevalent among gender incongruent youth. Gender clinics have reported high rates of past suicide attempts by patients presenting for care: Boston (9.3%, mean age 14.8 (87)), London (10%, mean age 13.5 (82)), Los Angeles (30%, mean age 19.2 (86)). Rates of self-harm and suicidality appear to increase with age within this population (90).

Autism Spectrum Disorder

A number of studies have shown autism spectrum disorder (ASD) symptoms to be over-represented among transgender individuals. Clinical level rates of ASD symptomatology in transgender adults have been reported in the range of approximately 5% to 20% (91–93). A single study of 204 children and adolescents referred for gender dysphoria reported an ASD prevalence of 7.8% as measured by the Diagnostic Interview for Social and Communication Disorders (94). This compares to rates of ASD in the general population of around 1% (95). Two studies found increased gender variance (5.4%, 11.3%), defined by a positive response to "wishes to be of opposite sex" sometimes or often on the CBCL or YSR) in referred children, adolescents, and adults with ASD compared to nonreferred controls (96,97). However, the same was true for an ADHD-referred control sample (97), raising the issue that a higher probability of gender variance is characteristic of clinic-referred samples in general. Several hypotheses for shared underlying etiology that explains the link between these two conditions have been suggested (98–100).

Clinically, the co-occurrence of gender dysphoria and ASD may complicate transgender care, as diagnosing gender dysphoria can be difficult (e.g., in the context of the rigid thinking that is characteristic of ASD). Case reports have described instances cross-gender identification represented a transient preoccupation in youth with ASD (101). Additionally, language difficulties can make expression of gender dysphoria difficult

for patients with ASD. Nonetheless, a comprehensive narrative review of the literature has shown a role for transition with pubertal blockade and cross-sex hormonal therapy in these patients following an extended diagnostic process (99). By use of a Delphi method, a group of experts on the ASD-gender dysphoria co-occurrence developed initial clinical guidelines assessment and treatment for adolescent transgender care (98). Careful diagnosis of both conditions by specific specialists, collaboration of clinicians from both fields, an extended diagnostic phase, and risk assessment and safety issues are part of the suggested management protocol.

THERAPEUTICS

Treatment of Prepubescent Children

Over the past 10 years, best practice treatment for children with gender dysphoria has been the subject of intense controversy (102). As noted below, there are now three broad approaches that have been delineated in the literature: (1) the oldest one—characterized by Dreger (103) as the "therapeutic model"—consists of efforts, either directly (e.g., via specific suggestions that parents can implement in the day-to-day environment) or indirectly (e.g., psychodynamically informed approaches that treat the putative underlying "causes" of the gender dysphoria) and actively attempt to reduce cross-gender identification (104); (2) an intermediate approach, which some have characterized as "watchful waiting" (105), in which no direct efforts are made to "prohibit" a child's gender-variant behavior, but one that also advises parents to keep options open about the child's long-term gender identity and to avoid early social transition; (3) and, more recently, an approach characterized by Ehrensaft (106) as the "affirmative model" that considers all outcomes of gender identity to be equally valid and desirable and allows children who express a desire to socially transition to do so after careful counseling. These approaches have been discussed in great detail in three Task Force reports (107–109), in a special volume of the *Journal of Homosexuality* (102), and various other essays and case reports, the references for which can be found in these major reviews.

For the nonspecialist, there are several key issues to keep in mind when appraising this literature: (1) Some of these approaches may be influenced by particular theoretical formulations regarding the determinants of gender dysphoria and these formulations guide or influence recommended treatment plans; (2) there are no randomized controlled trials that have compared the effects of these treatments with regard to both short-term and long-term outcomes. Indeed, Byne et al. (109) noted that, by and large, "the highest level of evidence…can best be characterized as expert opinion" (p. 762); (3) with some rare exceptions (110), there are no manualized or even semi-manualized treatments that a clinician can follow in developing a therapeutic plan. Thus, the clinician needs to self-educate by reading about the therapeutic model that one intends to follow and tailor it on a case-by-case basis. Below, we provide relatively brief summaries of these three treatment approaches.

Promoting Identification with the Gender Assigned at Birth

This first approach aims, through psychosocial interventions, to reduce the child's cross-gender identification and gender dysphoria. These treatments (which have been described in the literature since the 1960s) have, however, been quite varied. They include classical behavior therapy, psychodynamic therapy (including psychoanalysis and dynamically informed play psychotherapy), parental counseling, and parent-guided interventions in the naturalistic environment (e.g., encouragement of peer relations of the same natal sex) (110,111).

Perhaps the underlying assumption of all of these approaches rests on the view that gender identity is not yet fixed in childhood and may be malleable through psychosocial treatments. There is also an implicit assumption or value judgment that might be inferred from this approach, namely that all things considered a child's long-term adaptation might be easier if he or she could come to feel content with a gender identity that matches their natal sex and to avoid the necessity of a lifelong regimen of cross-sex hormonal treatment and sex-reassignment surgery (or what nowadays is also called gender-affirming surgery).

Critics of this approach have argued that there is nothing inherently "wrong" with a cross-gender identity and have challenged the view that trying to change such an identity is warranted. Indeed, there are now several US states and one province in Canada that have passed legislation stating that it is inappropriate to try and change a minor's gender identity when the minor is unable to consent to the treatment, but exempt from this directive is "identity exploration" (112). Critics have also rightly noted that some of the earliest proponents of this treatment held the belief that it might also reduce the odds of the child's later development of a same-sex sexual orientation (113), although other proponents of this treatment rejected this as an ethically defensible treatment goal (111). Another expressed concern has been that this type of treatment might cause a child to feel shame or other negative and maladaptive feelings (108).

Watchful Waiting

The second approach takes an intermediate therapeutic position. On the one hand, it does not recommend an early gender social transition on the grounds that the extant follow-up studies have shown that the majority of children with gender dysphoria desist for one reason or another. On the other hand, it does not explicitly recommend any type of limit-setting on the child's gender-variant behavior, with the exception that in certain environments it might be risky or dangerous to display such behavior, which Hill et al. (114) described as the "only at home" rule.

This approach also does not privilege one type of long-term outcome over another, noting that it is difficult to predict outcome for an individual child and that the more important focus should be on the child's general psychosocial adjustment and well-being. This approach does, however, include recommendations to parents that they try to encourage in their child a variety of gender-related interests and social affiliation with children of both genders. In some respects, the "watchful waiting" label is a bit of a misnomer because clinical protocols appear to include information provided to the parents that is more than "wait-and-see." As noted by de Vries and Cohen-Kettenis (115), appropriate limit-setting with good explanation of why the limits are set to their child may be helpful so that the child will learn "that not all desires will be met," which is important because "someone's deepest desire or fantasy to have been born in the body of the other gender will never be completely fulfilled." Although social transition according to this approach is not recommended at a very young age, an increasing number of children have already socially transitioned when they come to gender identity clinics (115). Some of these children may have no clear memories of a time that they were socially living in the birth-assigned gender and have stopped talking about being born different from their experienced gender. In these cases, it is encouraged that parents create an open situation where the child has the possibility of returning to the birth-assigned gender. It is discussed with the child that when gender identity feelings change, it is

nothing to be ashamed of, that nobody will be angry, that the child may speak out, and that it is good to have tried. A form of psychotherapy that helps the child to verbalize his or her feelings may be advised so that, by the time the child may come back for GnRHa, the child is able to talk about his or her feelings and can give informed consent.

Affirmative Approach

The affirmative approach theorizes that clinician and parental attempts to push children with gender incongruence toward conforming to their gender assigned at birth might produce shame and stigma that can ultimately lead to internalizing psychopathology (108). The approach considers all outcomes of gender identity to be equally desirable and affirms any gender identity the child expresses.

Though similar to the watchful waiting approach, an important departure is in its approach regarding early social transition. In the affirmative model, prepubertal children who ultimately express a desire to socially transition and live full time in their experienced gender (i.e., using cross-gender pronouns, a cross-gender name, cross-gender clothing, etc.) are allowed to do so. The approach to social transition must be carefully individualized with a nuanced understanding of the child's gender identification and the level of support within the child's community; there must also be an open discussion with the child highlighting that despite the social transition that the patient is free to transition back at any time (115).

Some have noted cases where this transition back to living as one's birth gender can be particularly difficult mostly due to fear of peer judgment (116), though this must be weighed against the potential negative consequences of refusing to affirm a child's identity and desire to transition socially. The affirmative model predicts that this lack of affirmation might lead to shame and consequent internalizing psychopathology (117). The therapeutic relationship in these cases could also be negatively affected if the clinician strongly discourages an early transition for a patient who ultimately persists in cross-gender identification.

Critics of social transitions in prepubertal children have raised the question of whether early social transition increases the rates of gender incongruence persistence from childhood into adolescence. Indeed, a multivariate regression analysis revealed that early social transition was associated with persistence (73). However, the direction of this association cannot be determined by this study. While some believe that prepubertal social transition makes children more likely to persist, the alternative interpretation is that those likely to persist are also more likely to undergo early social transition, due to currently unidentified factors. This additionally raises the ethical question of whether persistence should be considered an undesirable outcome. The affirmative model suggests that all outcomes of gender identity are equally desirable.

Separate from the question of persistence is the question of mental health outcomes following social transition. There is a relative paucity of literature studying the effect of prepubertal social transition. One study examined 73 American prepubertal children who were transgender in a binary fashion and allowed to socially transition. Parents of these children completed short forms for anxiety and depression at an unspecified time following the transition (118). Data from these scales revealed that these children had notably lower rates of internalizing psychopathology than previously reported children who did not transition. Furthermore, socially transitioned children in this study showed developmentally normal levels of depression and only minimally elevated (subclinical) levels of anxiety. It is important to note that families in this study had a relatively high median income, raising the question of whether this cohort is representative of a broader sociodemographic cohort (119). Though this early work suggests that socially transitioned children have better mental health metrics than previously reported children who did not socially transition, future research is needed to fully understand the dynamic and long-term effects of social transition in a broader population (119).

Treatment of Adolescents

Once children have reached puberty, transgender identity persists in the vast majority of cases, and medical intervention is often considered. At present, the effectiveness of an approach that includes puberty suppression and is followed by cross-hormones and surgeries has been evaluated in two studies on the same cohort of Dutch adolescents. The first study evaluated gender dysphoria and psychological functioning at two time points; first, when the 70 adolescents entered the clinic (mean age, 13.65 years), and second, just before they started cross-hormones (mean age, 16.64 years). Of interest, while adolescents improved with regard to psychological functioning on several domains, gender dysphoria did not improve and all adolescents went on with the next step of gender-affirming hormones (120). The second study added a third assessment, around one year after gender affirmative surgeries, when the first 55 adolescents who had been in this treatment protocol had reached young adulthood (mean age, 20.70 years). This time, gender dysphoria was resolved and psychological functioning measures had even further improved with scores that were comparable to normative samples. The same accounted for quality of life, subjective happiness, and satisfaction with life scores (121). These positive results are promising and give trust that starting treatment at a relatively young age is possible. However, the results come from only one clinic and concern a highly selected sample that received support from their parents and often their further school and social environment that started the treatment only after extensive assessment and received further mental health counseling during the years of treatment. Whether the same positive results can be expected for the larger number of adolescents that are treated at clinics that strongly vary in their approach to gender-variant adolescents has yet to be determined.

Assessing Eligibility

According to Endocrine Society Guidelines, hormonally based medical intervention may be initiated at the earliest signs of puberty (i.e., Tanner 2 or 3) (26). Other eligibility criteria include meeting criteria for gender dysphoria (termed gender identity disorder in the 2009 guidelines), experiencing dysphoria toward early pubertal changes, having adequate psychological and social support for treatment, understanding the risks and benefits of treatment, and not suffering from a psychiatric comorbidity that would interfere with treatment (26). To assess eligibility, most clinics offer an assessment by a mental health professional that sees the adolescent and his or her family over a longer period of time before decisions regarding medical interventions are made. This time is used to prepare for the long period of medical treatment with lifelong consequences that is likely to follow and weigh the pros and cons of treatment so that an informed decision can be made. Although many adolescents come with a clear wish for medical treatment, some are not sure yet and want to explore their gender dysphoric feelings more broadly. Sometimes co-occurring psychiatric difficulties like ASD with rigid thinking, severe depression with acute suicidality or anxiety with worrisome avoidance and school refusal, complicate this diagnostic work and make coming to regular medical checkups and taking medication impossible. Treatment of these psychiatric disorders may then be necessary before endocrine intervention. The importance of parental support for the psychological well-being of

adolescents is widely acknowledged (122). The time that is used for assessment may also be helpful in addressing parents' concerns and improving the adolescent–parent relationship. The time that is needed before medical intervention is provided may vary for each individual case, but tends to be longer when psychosocial comorbidities occur (115,123).

Fully Reversible Interventions (Pubertal Blockade)

The first such intervention (implemented at Tanner 2 or 3 of puberty) is pubertal blockade with GnRHa. Gonadotropin-releasing hormone is produced by neurons in hypothalamus. In prepubertal children, this hormone is secreted at very low levels. At the initiation of puberty, release of gonadotropin-releasing hormone becomes cyclical. This cyclical release of hormone results in release of follicle-stimulating hormone (FSH) and luteinizing hormone (LH) from the anterior pituitary. These hormones then enter the peripheral circulation, where they initiate the production of sex hormones (estrogen in natal women and testosterone in natal men). These hormones then initiate the irreversible development of secondary sex characteristics.

GnRHa (either implants, depot injections, or regular injections) maintain high levels of gonadotropin-releasing hormone in the circulation. Without physiologic cyclical fluctuations in GnRH levels, FSH and LH are not released and all downstream signaling is prevented. This allows the patient to remain in a prepubertal state (124).

Pubertal blockade prevents the development of irreversible secondary sex characteristics (voice deepening, breast development, etc.) and provides additional time for gender dysphoric children to decide if they wish to fully transition physically into the body of the opposite sex. Therefore, it does not need to be considered actual gender affirmative medical treatment, but rather may function as an extended diagnostic phase. If the GnRHa implant is removed or the injections discontinued, the effects of the medication are reversible. With removal or discontinuation of the GnRHa, the patient will undergo natal puberty. Follow-up studies into young adulthood on the first cohort of puberty-suppressed adolescents are reassuring with regard to side effects. Although there was some deprived bone density, there were no concerns regarding liver and kidney functioning and lipid profile (125,126). Some advise clinicians to evaluate bone age for these patients every 3 months (26) and have regular blood monitoring to ensure that the central axis of puberty is sufficiently suppressed (26).

Partially Reversible Interventions (Cross-sex Hormonal Therapy)

Around the age of 16, patients may choose to move onto the next intervention of cross-sex hormonal therapy with estrogen or testosterone, according to Endocrine Society guidelines. Some groups have noted that cross-sex hormones can be instituted earlier, as delaying puberty outside the developmentally appropriate age may cause social problems for these youth (127). Additional criteria for cross-sex hormonal therapy are identical to those for GnRHa in the Endocrine Society guidelines.

Cross-sex hormones will initiate the development of secondary sex characteristics of the desired puberty. These interventions are mostly irreversible and carry a more significant side-effect profile. The most prominent side effect of estrogen therapy is hypercoagulability, though clinicians prescribing these medications should be aware of the full spectrum of side effects. Of note, this hypercoagulability can be particularly problematic for patients undergoing high-risk surgery such as vaginoplasty. Patients on these medications should be regularly monitored for serum hormone concentrations and maintained within normal testosterone and estrogen serum concentrations for their desired gender. Spironolactone has been used for its antiandrogenic properties in select cases but is generally not considered a first-line treatment given its unfavorable side-effect profile as a diuretic (26).

Irreversible Interventions (Gender-Affirming Surgeries)

At the legal age of adulthood, patients may choose to undergo a variety of surgical interventions, including vaginoplasty, phalloplasty, scrotoplasty, breast augmentation, facial reconstruction, hysterectomy, reduction thyroid chondroplasty, among others. Patients should be carefully counseled on the risks and benefits of surgery. Specific surgical interventions are many and are out of scope for the purpose of this review. Of note, some surgical interventions may be considered earlier in the course of treatment. In the WPATH's Standards of Care, mastectomies are being considered earlier than age 18 (27).

Fertility Considerations

There is a paucity of research on the effects of pubertal blockade and cross-sex hormonal therapy on future fertility. Interested patients should be counseled on fertility preservation options early in treatment. Include LGBT Health study showing that most transgender youth do not desire fertility preservation, however most adults which they had. More longitudinal research needed (128).

SUMMARY

Gender incongruent and gender dysphoric youth represent a vulnerable demographic with high rates of co-occurring psychiatric conditions and suicidal behavior, likely secondary to minority stress and dysphoria related to living in a body that does not match one's experienced gender. Prepubescent children with gender-variant behavior or identification are best supported with psychotherapy. For those children who continue to have strong cross-sex identification in adolescence, pubertal blockade, and cross-sex hormone therapy to align patients' bodies with their identities have been shown to improve mental health outcomes.

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Exhibit “D”

Endocrine Treatment of Gender-Dysphoric/ Gender-Incongruent Persons: An Endocrine Society* Clinical Practice Guideline

Wylie C. Hembree,[1] Peggy T. Cohen-Kettenis,[2] Louis Gooren,[3] Sabine E. Hannema,[4] Walter J. Meyer,[5] M. Hassan Murad,[6] Stephen M. Rosenthal,[7] Joshua D. Safer,[8] Vin Tangpricha,[9] and Guy G. T'Sjoen[10]

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*Cosponsoring Associations: American Association of Clinical Endocrinologists, American Society of Andrology, European Society for Pediatric Endocrinology, European Society of Endocrinology, Pediatric Endocrine Society, and World Professional Association for Transgender Health.

Objective: To update the "Endocrine Treatment of Transsexual Persons: An Endocrine Society Clinical Practice Guideline," published by the Endocrine Society in 2009.

Participants: The participants include an Endocrine Society–appointed task force of nine experts, a methodologist, and a medical writer.

Evidence: This evidence-based guideline was developed using the Grading of Recommendations, Assessment, Development, and Evaluation approach to describe the strength of recommendations and the quality of evidence. The task force commissioned two systematic reviews and used the best available evidence from other published systematic reviews and individual studies.

Consensus Process: Group meetings, conference calls, and e-mail communications enabled consensus. Endocrine Society committees, members and cosponsoring organizations reviewed and commented on preliminary drafts of the guidelines.

Conclusion: Gender affirmation is multidisciplinary treatment in which endocrinologists play an important role. Gender-dysphoric/gender-incongruent persons seek and/or are referred to endocrinologists to develop the physical characteristics of the affirmed gender. They require a safe and effective hormone regimen that will (1) suppress endogenous sex hormone secretion determined by the person's genetic/gonadal sex and (2) maintain sex hormone levels within the normal range for the person's affirmed gender. Hormone treatment is not recommended for prepubertal gender-dysphoric/gender-incongruent persons. Those clinicians who recommend gender-affirming endocrine treatments—appropriately trained diagnosing clinicians (required), a mental health provider for adolescents (required) and mental health

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Abbreviations: BMD, bone mineral density; DSD, disorder/difference of sex development; DSM, Diagnostic and Statistical Manual of Mental Disorders; GD, gender dysphoria; GnRH, gonadotropin-releasing hormone; ICD, International Statistical Classification of Diseases and Related Health Problems; MHP, mental health professional; VTE, venous thromboembolism.

professional for adults (recommended)—should be knowledgeable about the diagnostic criteria and criteria for gender-affirming treatment, have sufficient training and experience in assessing psychopathology, and be willing to participate in the ongoing care throughout the endocrine transition. We recommend treating gender-dysphoric/gender-incongruent adolescents who have entered puberty at Tanner Stage G2/B2 by suppression with gonadotropin-releasing hormone agonists. Clinicians may add gender-affirming hormones after a multidisciplinary team has confirmed the persistence of gender dysphoria/gender incongruence and sufficient mental capacity to give informed consent to this partially irreversible treatment. Most adolescents have this capacity by age 16 years old. We recognize that there may be compelling reasons to initiate sex hormone treatment prior to age 16 years, although there is minimal published experience treating prior to 13.5 to 14 years of age. For the care of peripubertal youths and older adolescents, we recommend that an expert multidisciplinary team comprised of medical professionals and mental health professionals manage this treatment. The treating physician must confirm the criteria for treatment used by the referring mental health practitioner and collaborate with them in decisions about gender-affirming surgery in older adolescents. For adult gender-dysphoric/gender-incongruent persons, the treating clinicians (collectively) should have expertise in transgender-specific diagnostic criteria, mental health, primary care, hormone treatment, and surgery, as needed by the patient. We suggest maintaining physiologic levels of gender-appropriate hormones and monitoring for known risks and complications. When high doses of sex steroids are required to suppress endogenous sex steroids and/or in advanced age, clinicians may consider surgically removing natal gonads along with reducing sex steroid treatment. Clinicians should monitor both transgender males (female to male) and transgender females (male to female) for reproductive organ cancer risk when surgical removal is incomplete. Additionally, clinicians should persistently monitor adverse effects of sex steroids. For gender-affirming surgeries in adults, the treating physician must collaborate with and confirm the criteria for treatment used by the referring physician. Clinicians should avoid harming individuals (via hormone treatment) who have conditions other than gender dysphoria/gender incongruence and who may not benefit from the physical changes associated with this treatment. (***J Clin Endocrinol Metab*** **102: 3869–3903, 2017)**

Summary of Recommendations

1.0 Evaluation of youth and adults

1.1. We advise that only trained mental health professionals (MHPs) who meet the following criteria should diagnose gender dysphoria (GD)/gender incongruence in adults: (1) competence in using the Diagnostic and Statistical Manual of Mental Disorders (DSM) and/or the International Statistical Classification of Diseases and Related Health Problems (ICD) for diagnostic purposes, (2) the ability to diagnose GD/gender incongruence and make a distinction between GD/gender incongruence and conditions that have similar features (*e.g.*, body dysmorphic disorder), (3) training in diagnosing psychiatric conditions, (4) the ability to undertake or refer for appropriate treatment, (5) the ability to psychosocially assess the person's understanding, mental health, and social conditions that can impact gender-affirming hormone therapy, and (6) a practice of regularly attending relevant professional meetings. (Ungraded Good Practice Statement)

1.2. We advise that only MHPs who meet the following criteria should diagnose GD/gender incongruence in children and adolescents: (1) training in child and adolescent developmental psychology and psychopathology, (2) competence in using the DSM and/or the ICD for diagnostic purposes, (3) the ability to make a distinction between GD/gender incongruence and conditions that have similar features (*e.g.*, body dysmorphic disorder), (4) training in diagnosing psychiatric conditions, (5) the ability to undertake or refer for appropriate treatment, (6) the ability to psychosocially assess the person's understanding and social conditions that can impact gender-affirming hormone therapy, (7) a practice of regularly attending relevant professional meetings, and (8) knowledge of the criteria for puberty blocking and gender-affirming hormone treatment in adolescents. (Ungraded Good Practice Statement)

1.3. We advise that decisions regarding the social transition of prepubertal youths with GD/gender incongruence are made with the assistance of an MHP or another experienced professional. (Ungraded Good Practice Statement).

5.0 Surgery for sex reassignment and gender confirmation

5.1. 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. (1 ⊕⊕◯◯)

5.2. We advise that clinicians approve genital gender-affirming surgery only after completion of at least 1 year of consistent and compliant hormone treatment, unless hormone therapy is not desired or medically contraindicated. (Ungraded Good Practice Statement)

5.3. We advise that the clinician responsible for endocrine treatment and the primary care provider ensure appropriate medical clearance of transgender individuals for genital gender-affirming surgery and collaborate with the surgeon regarding hormone use during and after surgery. (Ungraded Good Practice Statement)

5.4. We recommend that clinicians refer hormone-treated transgender individuals for genital surgery when: (1) the individual has had a satisfactory social role change, (2) the individual is satisfied about the hormonal effects, and (3) the individual desires definitive surgical changes. (1 ⊕◯◯◯)

5.5. We suggest that clinicians delay gender-affirming genital surgery involving gonadectomy and/or hysterectomy until the patient is at least 18 years old or legal age of majority in his or her country. (2 ⊕⊕◯◯).

5.6. We suggest that clinicians determine the timing of breast surgery for transgender males based upon the physical and mental health status of the individual. There is insufficient evidence to recommend a specific age requirement. (2 ⊕◯◯◯)

Changes Since the Previous Guideline

Both the current guideline and the one published in 2009 contain similar sections. Listed here are the sections contained in the current guideline and the corresponding number of recommendations: Introduction, Evaluation of Youth and Adults (5), Treatment of Adolescents (6), Hormonal Therapy for Transgender Adults (4), Adverse Outcomes Prevention and Long-term Care (7), and Surgery for Sex Reassignment and Gender Confirmation (6). The current introduction updates the diagnostic classification of "gender dysphoria/gender incongruence." It also reviews the development of "gender identity" and summarizes its natural development. The section on clinical evaluation of both youth and adults, defines in detail the professional qualifications required of those who diagnose and treat both adolescents and adults. 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. We recommend against puberty blocking followed by gender-affirming hormone treatment of prepubertal children. Clinicians should inform pubertal children, adolescents, and adults seeking gender-confirming treatment of their options for fertility preservation. Prior to treatment, clinicians should evaluate the presence of medical conditions that may be worsened by hormone depletion and/or treatment. A multidisciplinary team, preferably composed of medical and mental health professionals, should monitor treatments. Clinicians evaluating transgender adults for endocrine treatment should confirm the diagnosis of persistent gender dysphoria/gender incongruence. Physicians should educate transgender persons regarding the time course of steroid-induced physical changes. Treatment should include periodic monitoring of hormone levels and metabolic parameters, as well as assessments of bone density and the impact upon prostate, gonads, and uterus. We also make recommendations for transgender persons who plan genital gender-affirming surgery.

Method of Development of Evidence-Based Clinical Practice Guidelines

The Clinical Guidelines Subcommittee (CGS) of the Endocrine Society deemed the diagnosis and treatment of individuals with GD/gender incongruence a priority area for revision and appointed a task force to formulate evidence-based recommendations. The task force followed the approach recommended by the Grading of Recommendations, Assessment, Development, and Evaluation group, an international group with expertise in the development and implementation of evidence-based guidelines (1). A detailed description of the grading scheme has been published elsewhere (2). The task force used the best available research evidence to develop the recommendations. The task force also used consistent language and graphical descriptions of both the strength of a recommendation and the quality of evidence. In terms of the strength of the recommendation, strong recommendations use the phrase "we recommend" and the number 1, and weak recommendations use the phrase "we suggest" and the number 2. Cross-filled circles indicate the quality of the evidence, such that ⊕◯◯◯ denotes very low–quality evidence; ⊕⊕◯◯, low quality; ⊕⊕⊕◯, moderate quality; and ⊕⊕⊕⊕, high quality. The task force has confidence that persons who receive care according to the strong recommendations will derive, on average, more benefit than harm. Weak recommendations require more careful consideration of the person's circumstances, values, and preferences to determine the best course of action. Linked to each recommendation is a description of the evidence and the

Natural History of Children With GD/Gender Incongruence

With current knowledge, we cannot predict the psychosexual outcome for any specific child. 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 (20, 40). In adolescence, a significant number of these desisters identify as homosexual or bisexual. It may be that children who only showed some gender nonconforming characteristics have been included in the follow-up studies, because the DSM-IV text revision criteria for a diagnosis were rather broad. However, the persistence of GD/gender incongruence into adolescence is more likely if it had been extreme in childhood (41, 42). With the newer, stricter criteria of the DSM-5 (Table 2), persistence rates may well be different in future studies.

1.0 Evaluation of Youth and Adults

Gender-affirming treatment is a multidisciplinary effort. After evaluation, education, and diagnosis, treatment may include mental health care, hormone therapy, and/or surgical therapy. Together with an MHP, hormone-prescribing clinicians should examine the psychosocial impact of the potential changes on people's lives, including mental health, friends, family, jobs, and their role in society. Transgender individuals should be encouraged to experience living in the new gender role and assess whether this improves their quality of life. Although the focus of this guideline is gender-affirming hormone therapy, collaboration with appropriate professionals responsible for each aspect of treatment maximizes a successful outcome.

Diagnostic assessment and mental health care

GD/gender incongruence may be accompanied with psychological or psychiatric problems (43–51). It is therefore necessary that clinicians who prescribe hormones and are involved in diagnosis and psychosocial assessment meet the following criteria: (1) are competent in using the DSM and/or the ICD for diagnostic purposes, (2) are able to diagnose GD/gender incongruence and make a distinction between GD/gender incongruence and conditions that have similar features (*e.g.*, body dysmorphic disorder), (3) are trained in diagnosing psychiatric conditions, (4) undertake or refer for appropriate treatment, (5) are able to do a psychosocial assessment of the patient's understanding, mental health, and social conditions that can impact gender-affirming hormone therapy, and (6) regularly attend relevant professional meetings.

Because of the psychological vulnerability of many individuals with GD/gender incongruence, it is important that mental health care is available before, during, and sometimes also after transitioning. For children and adolescents, an MHP who has training/experience in child and adolescent gender development (as well as child and adolescent psychopathology) should make the diagnosis, because assessing GD/gender incongruence in children and adolescents is often extremely complex.

During assessment, the clinician obtains information from the individual seeking gender-affirming treatment. In the case

Table 2. DSM-5 Criteria for Gender Dysphoria in Adolescents and Adults

A. A marked incongruence between one's experienced/expressed gender and natal gender of at least 6 mo in duration, as manifested by at least two of the following:
   1. A marked incongruence between one's experienced/expressed gender and primary and/or secondary sex characteristics (or in young adolescents, the anticipated secondary sex characteristics)
   2. A strong desire to be rid of one's primary and/or secondary sex characteristics because of a marked incongruence with one's experienced/expressed gender (or in young adolescents, a desire to prevent the development of the anticipated secondary sex characteristics)
   3. A strong desire for the primary and/or secondary sex characteristics of the other gender
   4. A strong desire to be of the other gender (or some alternative gender different from one's designated gender)
   5. A strong desire to be treated as the other gender (or some alternative gender different from one's designated gender)
   6. A strong conviction that one has the typical feelings and reactions of the other gender (or some alternative gender different from one's designated gender)

B. The condition is associated with clinically significant distress or impairment in social, occupational, or other important areas of functioning.

Specify if:
   1. The condition exists with a disorder of sex development.
   2. The condition is posttransitional, in that the individual has transitioned to full-time living in the desired gender (with or without legalization of gender change) and has undergone (or is preparing to have) at least one sex-related medical procedure or treatment regimen—namely, regular sex hormone treatment or gender reassignment surgery confirming the desired gender (*e.g.*, penectomy, vaginoplasty in natal males; mastectomy or phalloplasty in natal females).

Reference: American Psychiatric Association (14).

of adolescents, the clinician also obtains information from the parents or guardians regarding various aspects of the child's general and psychosexual development and current functioning. On the basis of this information, the clinician:

- decides whether the individual fulfills criteria for treatment (see Tables 2 and 3) for GD/gender incongruence (DSM-5) or transsexualism (DSM-5 and/or ICD-10);
- informs the individual about the possibilities and limitations of various kinds of treatment (hormonal/surgical and nonhormonal), and if medical treatment is desired, provides correct information to prevent unrealistically high expectations;
- assesses whether medical interventions may result in unfavorable psychological and social outcomes.

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. Literature on postoperative regret suggests that besides poor quality of surgery, severe psychiatric comorbidity and lack of support may interfere with positive outcomes (52–56).

For adolescents, the diagnostic procedure usually includes a complete psychodiagnostic assessment (57) and an assessment of the decision-making capability of the youth. An evaluation to assess the family's ability to endure stress, give support, and deal with the complexities of the adolescent's situation should be part of the diagnostic phase (58).

Social transitioning

A change in gender expression and role (which may involve living part time or full time in another gender role that is consistent with one's gender identity) may test the person's resolve, the capacity to function in the affirmed gender, and the adequacy of social, economic, and psychological supports. It assists both the individual and the clinician in their judgments about how to proceed (16). During social transitioning, the person's feelings about the social transformation (including coping with the responses of others) is a major focus of the counseling. The optimal timing for social transitioning may differ between individuals. Sometimes people wait until they start gender-affirming hormone treatment to make social transitioning easier, but individuals increasingly start social transitioning long before they receive medically supervised, gender-affirming hormone treatment.

Criteria

Adolescents and adults seeking gender-affirming hormone treatment and surgery should satisfy certain criteria before proceeding (16). Criteria for gender-affirming hormone therapy for adults are in Table 4, and criteria for gender-affirming hormone therapy for adolescents are in Table 5. Follow-up studies in adults meeting these criteria indicate a high satisfaction rate with treatment (59). However, the quality of evidence is usually low. A few follow-up studies on adolescents who fulfilled these criteria also indicated good treatment results (60–63).

Recommendations for Those Involved in the Gender-Affirming Hormone Treatment of Individuals With GD/Gender Incongruence

1.1. We advise that only trained MHPs who meet the following criteria should diagnose GD/gender incongruence in adults: (1) competence in using the DSM and/or the ICD for diagnostic purposes, (2) the ability to diagnose GD/gender incongruence and make a distinction between GD/gender incongruence and conditions that have similar features (*e.g.*, body dysmorphic disorder), (3) training in diagnosing psychiatric conditions, (4) the ability to undertake or refer for appropriate treatment, (5) the ability to psychosocially assess the person's understanding, mental health, and social conditions that can impact gender-affirming hormone therapy, and (6) a practice of regularly attending relevant professional meetings. (Ungraded Good Practice Statement)

1.2. We advise that only MHPs who meet the following criteria should diagnose GD/gender incongruence in children and adolescents: (1) training in child and adolescent developmental psychology and psychopathology, (2) competence in using the DSM and/or ICD for diagnostic

Table 3. ICD-10 Criteria for Transsexualism

Transsexualism (F64.0) has three criteria:
1. The desire to live and be accepted as a member of the opposite sex, usually accompanied by the wish to make his or her body as congruent as possible with the preferred sex through surgery and hormone treatments.
2. The transsexual identity has been present persistently for at least 2 y.
3. The disorder is not a symptom of another mental disorder or a genetic, DSD, or chromosomal abnormality.

Exhibit “E”

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Social Transition for Transgender and Gender Diverse Youth, K-12 Harassment, and Adult Mental Health Outcomes

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Abstract

Purpose: Many transgender and gender diverse (TGD) youth undergo social transition, in which they change their gender expression to align with their gender identity. Our objective was to examine associations between timing of social transition (during the prepubertal childhood period, adolescence, or adulthood) and adult mental health outcomes.

Methods: We conducted a secondary analysis of the 2015 U.S. Transgender Survey, a cross-sectional non-probability survey of 27,715 TGD adults in the United States. Based on self-report, participants were categorized as having undergone social transition during childhood (ages 3-9), adolescence (ages 10-17), or adulthood (ages ≥18). Using multivariable logistic regression, we examined associations between timing of social transition and adult mental health outcomes.

Results: After adjusting for demographic and potential confounding variables, childhood social transition was associated with lower odds of lifetime marijuana use (aOR 0.7, 95% CI=0.5-0.8, p<.0001) when compared to adult social transition. Prior to adjusting for K-12 harassment based on gender identity, adolescent social transition was associated with adverse mental health outcomes, including greater odds of lifetime suicide attempts when compared to adult social transition (aOR 1.3, 95% CI=1.1-1.7, p=.004). These associations were no longer significant after further adjusting for K-12 harassment.

Conclusions: Though past research has shown TGD youth who undergo social transition have favorable mental health outcomes in the short term, they may have worse mental health in adulthood if not protected from K-12 harassment based on gender identity. It is the responsibility of clinicians to emphasize the importance of adolescents having safe and affirming social environments.

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INTROODUCTION

Transgender and gender diverse (TGD) youth are those whose gender identity (i.e., their inner sense of their own gender) does not align with societal expectations based on their sex assigned at birth.[1] A recent study of adolescents in the United States (U.S.), conducted by the Centers for Disease Control and Prevention, estimated that 1.8% of adolescents in the U.S. identify as TGD.[2]

For prepubertal youth, medical interventions are not recommended.[3, 4] Some TGD prepubertal children, however, may choose to undergo a "social transition."[5] This refers to the child adopting the name, pronouns, gender expression (e.g., clothes, haircut) and/or gender roles that match their gender identity.[5] Benefits of this approach may include self-actualization of a child's gender identity by having their gender expression align with their identity, which could decrease gender dysphoria and subsequently improve self-esteem and global functioning.[1]

Whether or not to recommend allowing a child to undergo a prepubertal social transition has been an area of controversy in pediatrics.[5] Some clinicians have argued for a "watchful waiting" approach, in which parents are counseled not to facilitate a social transition for their child until they reach puberty.[6] The rationale proposed for this has been that a prepubertal child may subsequently no longer identify as a gender different from their sex assigned at birth, and that such a "de-transition" could lead to social stress. Proponents of this approach assert that gender identity is less stable prior to puberty, though the data underlying this assumption have been contested.[7] Other clinicians have argued that prepubertal children should be allowed to socially transition if they so desire, because preventing social transition reduces autonomy regarding self-actualization, and may lead to shame as well as damaged relationships between the child and their parents and clinicians.[8] Proponents of this approach have highlighted that social stress due to a potential "de-transition" could be alleviated by working with persons in the child's environment to ensure validation. In the past, a third approach has been described, in which a clinician utilizes psychotherapeutic approaches in an attempt to force a child toward a non-TGD identity and expression;[9] such approaches are now considered dangerous[10] and unethical.[11] Social transition after the onset of puberty (i.e., during adolescence or adulthood) has been somewhat less controversial in medical and mental health guidelines than childhood social transition, albeit often controversial in communities.[12]

There is a paucity of data regarding the mental health outcomes of prepubertal TGD youth who socially transition. Two small studies of community-recruited prepubertal TGD youth found that those who were allowed to socially transition had rates of internalizing psychopathology (e.g., anxiety and depression) nearly indistinguishable from their non-TGD peers.[13, 14] Research from this same group found that prepubertal social transition does not appear to result in children identifying more strongly as TGD following social transition, but rather that the intensity of their TGD identity prior to social transition predicted their subsequent social transition.[15]

These studies suggest that, in the short term, TGD youth who are allowed to socially transition have favorable mental health outcomes. To our knowledge, no studies to date have examined mental health outcomes in adulthood among individuals who socially transition as minors. We hypothesized that these youth may suffer greater societal stigma and bullying as they progress through adolescence and adulthood, which could result in those who undergo a social transition during childhood or adolescence having greater odds of adverse adult mental health outcomes when compared to those who socially transition as adults.[5]

The current study analyzed data from the 2015 U.S. Transgender Survey (USTS), a large cross-sectional non-probability sample of 27,715 TGD adults in the U.S. and, to our knowledge, the largest survey of TGD people to date.[16] We examined associations between the age at which participants reported undergoing a social transition: during childhood (ages 3-9), adolescence (ages 10-17), or adulthood (ages ≥18), and adult mental health outcomes, including severe psychological distress, multiple measures of suicidality, and measures of substance use. The large sample size allowed us to adjust for a range of potential confounding variables. In post hoc analyses, we examined if such associations were present after further adjusting for harassment based on gender identity in the K-12 period from classmates, teachers, or school staff. It is, to our knowledge, the first study to examine the associations between age of social transition and adult mental health outcomes among TGD people.

METHODS

Study Population

The USTS is a cross-sectional non-probability survey and the largest existing dataset of TGD people to date.[16] TGD participants ages 18 and over were recruited in collaboration between the National Center for Transgender Equality (NCTE) and over 400 community outreach organizations.[16] This allowed for the recruitment of 27,715 participants, who completed psychometrics and survey questions during the data collection period between August and September 2015. The final sample included participants from all 50 U.S. states, as well as Washington D.C., Puerto Rico, and U.S. territories abroad. The protocol for the current study was reviewed by the Fenway Institutional Review Board. Because not all TGD people undergo a social transition, we restricted the current study to those who reported that they had undergone social transition. This was assessed by answering “Yes” to the question, “Do you currently live full-time in a gender that is different from the one assigned to you at birth?” Response options were “Yes” and “No.” Participants were also asked the age at which they began to live full-time in a gender that was different than the one assigned at birth. Those who reported an age younger than 3 (N=61) were excluded. The sample was further restricted to participants who realized they had a gender identity different from their sex assigned at birth during childhood, using the question: “At about what age did you begin to feel that your gender was “different” from your assigned birth sex?” This resulted in inclusion of 9,711 participants for the current study analyses.

Demographic Variables & Potential Confounding Variables

Demographic variables were collected, including age at time of survey completion (as a continuous variables and using U.S. census categories to capture potential cohort effects), years elapsed between age of realization of gender identity and social transition, gender identity, sex assigned at birth, sexual orientation, race, education level, employment status, relationship status, and total household income. We also examined potential confounders with known associations with mental health outcomes among TGD people, including family support of gender identity,[17] lifetime exposure to gender identity change efforts,[10] history of treatment with pubertal suppression,[18] and history of treatment with gender-affirming hormones.[19]

In post hoc analyses, we examined experiences of harassment based on gender identity between kindergarten and 12th grade (K-12) from classmates, teachers, or school staff. Due to collinearity between the types of K-12 harassment, participants were coded as having experienced any type of K-12 harassment if they endorsed any of the following experiences while they were in K-12: “I was verbally harassed because people thought I was trans,” “I was physically attacked because people thought I was trans,” or “I experienced unwanted sexual contact because people thought I was trans.”

Age of Social Transition

All participants who reported they had undergone a social transition were asked, “How old were you when you started to live full-time in a gender that is different from the one assigned to you at birth?” and provided a drop-down list of all integer ages 1 through 99. Participants were divided into three categories based on their responses: childhood social transition (ages 3-9), adolescent social transition (ages 10-17), and adult social transition (ages ≥18). Age 10 was used as an approximate prepubertal cut-off,[20, 21] as the ages at which participants reached Tanner 2 of puberty were not available in the dataset.

Outcomes

Past-month severe psychological distress was defined as a score ≥13 on the Kessler-6 Psychological Distress Scale.[22] This cutoff has been determined to have a total classification accuracy of 0.92 for meeting criteria for a DSM-IV diagnosis other than a substance use disorder and having a global assessment of functioning score of less than 60.[22] Multiple measures of suicidality were assessed including lifetime suicidal ideation, lifetime suicide attempt, past-year suicidal ideation, past-year suicide attempt, and past-year suicide attempt resulting in medical attention.[10] Past-month binge drinking was defined as drinking five or more standard drinks on a single occasion, a threshold that has been established for research with TGD adults.[23] Lifetime marijuana use and illicit drug use (excluding marijuana) was also assessed. All outcome variables were treated as dichotomous.

Statistical Analyses

Descriptive statistics were conducted to compare the three groups on demographic variables. Chi-square tests assessed differences between social transition age groups for all categorical variables, including age at time of survey completion in U.S. Census categories, gender identity, sex assigned at birth, sexual orientation, race, education level, employment

status, relationship status, total household income, family support for gender identity, lifetime exposure to gender identity change efforts, ever receiving treatment with pubertal suppression, and ever receiving treatment with gender-affirming hormones. For the non-normally distributed continuous variables, age at time of survey completion and time to social transition, Kruskal-Wallis H tests assessed differences between the three age groups. To examine associations with each mental health outcome, we used binary logistic regression and a significance level of $p \leq .05$. For each outcome that was significantly associated with social transition age groups in a univariate model, we built multivariable models. Those were adjusted for the covariates associated with each outcome at the level of $P \leq .20$.[24] For the post hoc analyses, all models were adjusted for K-12 harassment, in addition to the original covariates. Associations between covariates and outcomes of interest are reported in Supplemental Table 1. All tests were conducted with SPSS software version 25.

RESULTS

Demographic Differences & Potential Confounding Variables

Of the 9,711 included participants, 165 (1.7%) reported social transition in childhood, 1,196 (12.3%) report social transition in adolescence, and 8,350 (86.0%) reported social transition in adulthood. These three groups had statistically significant differences with regard to age at time of survey completion, years elapsed between realization of gender identity and social transition, gender identity, sex assigned at birth, sexual orientation, race, education level, employment status, relationship status, total household income, family support of gender identity, lifetime exposure to gender identity change efforts, having ever received pubertal suppression, and having ever received gender-affirming hormones (Table 1).

Childhood Social Transition

The mean age at time of survey completion for participants who reported a social transition during childhood was 30.7 (SD 13.0). Forty of these participants (24.2%) were assigned male sex at birth. After adjusting for demographic variables and potential confounding variables from Table 1, social transition during childhood was not associated with greater odds of any adverse mental health outcomes when compared with those who socially transitioned during adulthood (Table 2). Social transition during childhood was associated with lower odds of lifetime marijuana use when compared with those who socially transitioned during adulthood (aOR 0.7, 95% CI=0.6-0.9, p<.001).

In post hoc analysis, we examined associations between age of social transition and K-12 harassment based on gender identity. Participants who reported a childhood social transition were more likely to have been exposed to harassment based on gender identity than those who socially transitioned in adulthood (Table 3). After adding K-12 harassment based on gender identity to the model, there continued to be no detected association between childhood social transition and adverse mental health outcomes measured, when compared to those who socially transitioned during adulthood (Table 4). Childhood social transition remained significantly associated with lower odds of lifetime marijuana use when compared to adult social transition (aOR 0.7, 95% CI=0.5-0.8, p<.001).

Adolescent Social Transition

The mean age at time of survey completion for participants who reported a social transition during adolescence was 22.8 (SD 7.8). 222 of these participants (18.6%) were assigned male sex at birth. After adjusting for demographic variables and potential confounding variables from Table 1, and prior to adjusting for K-12 harassment based on gender identity, social transition during adolescence was associated with greater odds of lifetime suicide attempt (aOR 1.3, 95% CI=1.1-1.7, p=.004) and past-year suicidal ideation (aOR 1.2, 95% CI 1.01-1.5, p=.04) when compared with those who socially transitioned during adulthood (Table 2). In post hoc analyses, participants who reported an adolescent social transition were more likely to have been exposed to harassment based on gender identity than those who socially transitioned in adulthood (Table 3). After additional adjustment for K-12 harassment based on gender identity, none of the associations with adverse mental health outcomes remained statistically significant (Table 4).

Comparing Childhood and Adolescent Social Transition

After adjusting for demographic variables and potential confounders from Table 1, we detected no difference between childhood and adolescent social transition on any mental health outcomes examined (Table 2), including after post hoc analyses that further adjusted for K-12 harassment (Table 4).

DISCUSSION

There has been considerable debate in pediatrics regarding the potential benefits and risks of counseling parents to allow social transition for their prepubertal children who assert a TGD identity.[5] Social transition during adolescence and adulthood has generally been less controversial in medical guidelines compared to adolescent or adult social transitions, albeit often controversial in communities.[12] This is, to our knowledge, the first study to examine associations between recalled age of social transition and adult mental health outcomes. We did not detect any association between social transition during childhood and adverse mental health outcomes when compared to social transition during adulthood. In fact, social transition during childhood was associated with lower odds of lifetime marijuana use compared to adult social transition. Though we found social transition during adolescence to be associated with greater odds of some measures of suicidality compared to social transition during adulthood prior to adjusting for K-12 harassment based on gender identity, these associations were no longer statistically significant after adjusting for K-12 harassment based on gender identity. These findings suggest that social transition itself is not harmful, but that adverse reactions within unaccepting school environments are. An unaccepting environment is not an appropriate reason to withhold a social transition; instead, clinicians caring for TGD youth undergoing a social transition ought to provide guidance with regard to the importance of seeking a school environment that is accepting and validating. It appears this is of particular importance for those first socially transitioning as adolescents.

We found that experiences of K-12 harassment were common among those who socially transitioned during childhood or adolescence. Among those who socially transitioned as children, 53.1% were exposed to at least one type of harassment based on gender

identity, compared to 19.3% of those who did not socially transition until adulthood. Rates were similar for those who socially transitioned during childhood and those who socially transitioned during adolescence. The high prevalence of harassment is consistent with previous studies showing that TGD young people disproportionately feel unsafe[25] in school and experience concerning rates of exposure to bullying[26] and physical violence[25]. Furthermore, transphobic bullying has been associated with negative effects on the family and social relationships of TGD young people, which are critical protective factors for short- and long-term mental health outcomes.[27] Results from the current study indicate that K-12 harassment based on gender identity is a common experience that may have a substantial impact on suicidality among TGD people. This is of particular concern, given that rates of lifetime suicide attempts among this population are as high as 40%.[16]

Various strategies have been examined to improve school climate for sexual and gender minority youth, though most of these have focused primarily on sexual minority youth.[28] Relatively less is known regarding the most effective interventions to improve school climate for TGD youth.[28] Peer-based support, whether through the existence of Genders and Sexuality Alliances or through workshops focused on peer-led intervention when harassment occurs, have been shown to effectively reduce bullying for sexual minority youth.[29, 30] Anti-bullying policies have been found to result in less fear-based absenteeism and bullying victimization among sexual minority high school students.[28] Taken together, the literature suggests that peer-, curriculum-, and policy-based approaches may promote safer and more affirming school environments for TGD youth undergoing social transition. It is important to note that the onus for addressing a potentially hostile school environment lies with school officials, school districts, school boards, and educational policy rather than with individual TGD youth and their parents to delay social transition in order to avoid harassment. More research is needed to understand best practices to prevent harassment-related adverse outcomes specifically among TGD youth.

The finding of an association between adolescent but not childhood social transition and adverse mental health outcomes prior to adjusting for K-12 harassment may indicate that youth who transition in childhood develop greater resilience in the face of K-12 harassment and become somewhat less vulnerable to the effects of gender-based harassment, perhaps from having more time to live in their gender identity and subsequently feeling more secure. Further research is needed in this area to better understand the nature of this association.

Limitations

Although the USTS is the largest existing sample of TGD people to date, with broad geographic representation, it is a non-probability sample and thus may not be representative of TGD people in the U.S. The USTS sample is younger, with fewer racial minorities, fewer heterosexual participants, and higher educational attainment when compared to probability samples of TGD people in the U.S.[31] Due to the cross-sectional nature of the data, reverse causation cannot be ruled out. The USTS also lacked data regarding the age at which participants entered puberty, thus making it impossible to confirm that all participants in the childhood social transition group had in fact socially transitioned before puberty; age 10 was therefore used as an approximate cutoff for the childhood social transition group.

[20, 21] It will be important to collect this information in future studies, as age of pubertal onset varies both within and between various demographic groups (i.e., by sex assigned at birth, race, and additional factors). [20, 21] Future prospective studies will be important to better understand the longitudinal course of mental health outcomes among TGD people who socially transition during childhood or adolescence. The current study was unable to identify participants who transitioned in childhood or adolescence but are no longer living with a gender expression that aligns with their gender identity, as such participants would not have been included in this study. Future research is needed in this area. Of note, a recent study noted that most current TGD adults who have "de-transitioned" at some point in their lives attribute this to external factors, including stigma and harassment. [32] The current study included data on three types of K-12 harassment (verbal, physical, and sexual) but did not assess the duration, frequency, or intensity of these various types of harassment. Future studies should examine these features in detail. The USTS did not collect information on past or current formal mental health and substance use disorder diagnoses. Additionally, measures of mental health and substance use prior to social transition were not available. Future studies should investigate these as potential confounders.

The current study found that, after adjusting for K-12 harassment based on gender identity, social transition during childhood or adolescence was not associated with greater odds of adverse mental health outcomes when compared to adult social transition. In fact, TGD people who socially transitioned during childhood had lower odds of lifetime marijuana use than those who underwent social transition in adulthood. The study also found that prior to K-12 harassment being adjusted for, adolescent social transition was associated with adverse adult mental health outcomes, highlighting the importance of working with communities to ensure that TGD youth are transitioning in environments that are validating and supportive.The results highlight the importance of creating a safe and affirming school environment for TGD youth who undergo social transition, while also suggesting that social transition itself is an appropriate approach for youth, during childhood or adolescence.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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Implications and Contribution:

Transgender youth who socially transition have favorable short-term mental health outcomes. However, there is a paucity of data regarding their mental health in adulthood. This study found, after adjusting for K-12 harassment based on gender identity, no association between childhood or adolescent social transition and increased odds of adverse adult mental health outcomes, when compared to adult social transition.

Table 1.

Demographics, Mental Health, and Substance Use

		How old were you when you started to live full-time in a gender that is different from the one assigned to you at birth?				
	All N=9711	**In childhood, age 3 – 9 n=165**	**In adolescence, age 10 – 17 n=1196**	**In adulthood, age 18 and over n=8350**		
	μ (SD)	**μ (SD)**	**μ (SD)**	**μ (SD)**	**H**	**p**
Current age	34.8 (13.9)	30.7 (13.0)	22.8 (7.8)	36.6 (13.8)	1653.7	**<.001**
Time to social transition (years)	23.4 (12.8)	0.9 (1.5)	10.1 (2.7)	25.7 (12.3)	3112.9	**<.001**
	n (%)	**n (%)**	**n (%)**	**n (%)**	x^2	**p**
Current Age, census categories					1616.8	**<.001**
18 – 24	2774 (28.6)	74 (44.8)	918 (76.8)	1782 (21.3)		
25 – 44	4561 (47.0)	61 (37.0)	240 (20.1)	4260 (51.0)		
45 – 64	2036 (21.0)	28 (17.0)	33 (2.8)	1975 (23.7)		
65+	340 (3.5)	2 (1.2)	5 (0.4)	333 (4.0)		
Gender Identity					540.1	**<.001**
Woman	2072 (21.4)	9 (5.5)	100 (8.4)	1963 (23.5)		
Man	1308 (13.5)	25 (15.2)	253 (21.2)	1030 (12.3)		
Trans Woman	2140 (22.1)	21 (12.8)	97 (8.1)	2022 (24.2)		
Trans Man	2706 (27.9)	40 (24.4)	444 (37.2)	2222 (26.6)		
Non-binary / Genderqueer	1477 (15.2)	69 (42.1)	300 (25.1)	1108 (13.3)		
Sex Assigned at Birth					450.5	**<.001**
Female	5266 (54.2)	125 (75.8)	974 (81.4)	4167 (49.9)		
Male	4445 (45.8)	40 (24.2)	222 (18.6)	4183 (50.1)		
Sexual Orientation					86.8	**<.001**
Heterosexual / Straight	1837 (18.9)	30 (18.2)	212 (17.7)	1595 (19.1)		
Asexual	676 (7.0)	21 (12.7)	137 (11.5)	518 (6.2)		
Pansexual / Queer	4793 (49.4)	70 (42.4)	602 (50.3)	4121 (49.4)		
Gay / Lesbian / Bisexual	1812 (18.7)	27 (16.4)	155 (13.0)	1630 (19.5)		
Not listed	593 (6.1)	17 (10.3)	90 (7.5)	486 (5.8)		
Race					68.7	**<.001**

			How old were you when you started to live full-time in a gender that is different from the one assigned to you at birth?				
		All N=9711	**In childhood, age 3 – 9 n=165**	**In adolescence, age 10 – 17 n=1196**	**In adulthood, age 18 and over n=8350**		
		μ (SD)	**μ (SD)**	**μ (SD)**	**μ (SD)**	**H**	**p**
	Racial Minority	2101 (21.6)	59 (35.8)	349 (29.2)	1693 (20.3)		
	Not racial minority (White / European American)	7610 (78.4)	106 (64.2)	847 (70.8)	6657 (79.7)		
Education Level						985.0	**<.001**
	Less than high school	278 (2.9)	11 (6.7)	144 (12.0)	123 (1.5)		
	High school graduate / GED	1076 (11.1)	34 (20.6)	314 (26.3)	728 (8.7)		
	Some college / Associate's degree	4320 (44.5)	70 (42.4)	572 (47.8)	3678 (44.0)		
	Bachelor's degree or higher	4037 (41.6)	50 (30.3)	166 (13.9)	3821 (45.8)		
Employment Status						195.1	**<.001**
	Employed	6506 (85.9)	98 (77.2)	614 (70.8)	5794 (88.0)		
	Unemployed	1070 (14.1)	29 (22.8)	253 (29.2)	788 (12.0)		
Relationship Status						7.4	**.02**
	Partnered	4865 (52.0)	73 (46.8)	565 (48.8)	4227 (52.6)		
	Unpartnered	4487 (48.0)	83 (53.2)	592 (51.2)	3812 (47.4)		
Total Household Income						43.4	**<.001**
	< $25,000	3025 (33.4)	67 (45.3)	426 (40.4)	2532 (32.2)		
	$25,000 – $49,999	2095 (23.1)	30 (20.3)	210 (19.9)	1855 (23.6)		
	$50,000 – $99,000	2207 (24.4)	24 (16.2)	215 (20.4)	1968 (25.1)		
	>$100,000	1728 (19.1)	27 (18.2)	203 (19.3)	1498 (19.1)		
Family support of gender identity						50.9	**<.001**
	Supportive	5520 (59.2)	73 (45.9)	696 (59.6)	4751 (59.4)		
	Neutral	1596 (17.1)	26 (16.4)	194 (16.6)	1376 (17.2)		
	Unsupportive	1706 (18.3)	33 (20.8)	204 (17.5)	1469 (18.4)		
	Family doesn't know	497 (5.3)	27 (17.0)	74 (6.3)	396 (5.0)		
Ever exposed to gender identity change efforts						20.7	**<.001**
	Yes	1996 (23.3)	30 (25.2)	279 (29.1)	1687 (22.5)		
	No	6575 (76.7)	89 (74.8)	681 (70.9)	5805 (77.5)		
Ever had pubertal suppression						244.7	**<.001**

J Adolesc Health. Author manuscript; available in PMC 2022 December 01.

	All N=9711	*How old were you when you started to live full-time in a gender that is different from the one assigned to you at birth?*				
		In childhood, age 3 – 9 n=165	In adolescence, age 10 – 17 n=1196	In adulthood, age 18 and over n=8350		
	μ (SD)	μ (SD)	μ (SD)	μ (SD)	H	p
Yes	64 (0.7)	8 (4.8)	44 (3.7)	12 (0.1)		
No	9647 (99.3)	157 (95.2)	1152 (96.3)	8338 (99.9)		
Ever had gender-affirming hormones					510.4	**<.001**
Yes	7445 (77.4)	68 (41.7)	657 (55.5)	6720 (81.2)		
No	2180 (22.6)	95 (58.3)	527 (44.5)	1558 (18.8)		
Lifetime suicidal ideation	8235 (84.8)	135 (82.3)	1054 (88.3)	7046 (84.5)	12.8	**.002**
Past-year suicidal ideation	4491 (46.2)	76 (46.3)	723 (60.5)	3692 (44.3)	110.9	**<.001**
Past-year suicidal ideation with plan	2375 (24.5)	40 (52.6)	434 (60.0)	1901 (51.5)	17.6	**<.001**
Lifetime suicide attempt	4607 (47.4)	87 (53.0)	679 (57.0)	3841 (46.1)	51.3	**<.001**
Past-year suicide attempt	793 (8.2)	18 (23.7)	178 (24.7)	597 (16.2)	31.5	**<.001**
Past-year suicide attempt resulting in medical attention	377 (3.9)	7 (38.9)	73 (41.0)	297 (49.7)	4.8	.09
Past-month severe psychological distress	3138 (32.3)	64 (40.0)	601 (51.4)	2473 (30.2)	211.8	**<.001**
Lifetime illicit drug use	3434 (35.4)	46 (28.6)	299 (25.4)	3089 (37.4)	67.3	**<.001**
Lifetime marijuana use	6803 (70.1)	106 (65.4)	707 (59.7)	5990 (72.3)	81.4	**<.001**
Past-month binge drinking	2524 (26.0)	36 (21.8)	299 (25.1)	2189 (26.3)	2.3	.32

Note: Group differences between Current Age and Time to social transition were tested with Kruskal-Wallis H test

Table 2.

Outcomes.

	Childhood Social Transition, 3-9 (compared to Adults, 18+) (N=165)		Adolescent Social Transition, 10-17 (compared to Adults, 18+) (N=1196)		Childhood Social Transition, 3-9 (compared to Adolescents, 10-17) (N=165)	
	aOR (95% CI)	p	aOR (95% CI)	p	aOR (95% CI)	p
Suicidality (Past 12 months)						
Lifetime suicidal ideation [a]	0.8 (0.4 – 2.0)	.80	1.0 (0.7 – 1.3)	.90	1.7 (0.5 – 6.2)	.44
Past-year suicidal ideation [b]	1.0 (0.6 – 1.8)	.89	1.2 (1.01 – 1.5)	**.04**	0.7 (0.3 – 1.6)	.58
Past-year suicidal ideation with plan [c]	1.3 (0.7 – 2.6)	.45	1.2 (0.9 – 1.5)	.22		
Lifetime suicide attempt [d]	1.5 (0.9 – 2.6)	.12	1.3 (1.1 – 1.7)	**.004**		
Past-year suicide attempt [b]	1.3 (0.5 – 3.1)	.63	1.2 (0.9 – 1.7)	.28		
Past-year suicide attempt resulting in medical attention [e]	1.8 (0.5 – 6.7)	.36	1.1 (0.7 – 1.7)	.82		
Mental Health & Substance Use						
Past-month severe psychological distress (K6 ≥ 13) [b]	0.8 (0.4 – 1.4)	.43	1.1 (0.8 – 1.3)	.60	1.1 (0.4 – 2.7)	.83
Lifetime illicit drug use [f]	1.0 (0.5 – 1.7)	.87	1.0 (0.8 – 1.2)	.75		
Lifetime marijuana use [g]	0.7 (0.6 – 0.9)	**<.001**	0.7 (0.5 – 1.2)	.21		

Note: All models were adjusted for the following covariates: Current age, education level, family support for gender identity, and ever received treatment with gender-affirming hormones.

[a] Also adjusted for gender identity, sexual orientation, race, employment status, total household income, lifetime exposure to gender identity change efforts, time to social transition, and ever received treatment with pubertal suppression.

[b] Also adjusted for gender identity, sexual orientation, race, employment status, relationship status, total household income, lifetime exposure to gender identity change efforts, and time to social transition.

[c] Also adjusted for gender identity, sexual orientation, employment status, total household income, lifetime exposure to gender identity change efforts.

[d] Also adjusted for sexual orientation, race, education level, employment status, total household income, lifetime exposure to gender identity change efforts, and time to social transition.

[e] Also adjusted for relationship status and time to social transition.

[f] Adjusted for gender identity, sexual orientation, employment status, relationship status, total household income, lifetime exposure to gender identity change efforts, and time to social transition.

[g] Adjusted for gender identity, sexual orientation, employment status, relationship status, total household income, and time to social transition.

Table 3.

K-12 Harassment.

N=9711

	How old were you when you started to live full-time in a gender that is different from the one assigned to you at birth?				
	In childhood, age 3 – 9 n=165	**In adolescence, age 10 – 17 n=1196**	**In adulthood, age 18 and over n=8350**		
	n (%)	**n (%)**	**n (%)**	x^2	**p**
K-12 Harassment					
I was verbally harassed because people thought I was trans	84 (50.9)	735 (61.5)	1991 (23.8)	759.1	**<.001**
I was physically attacked because people thought I was trans	44 (26.7)	312 (26.1)	1098 (13.1)	155.6	**<.001**
I experienced unwanted sexual contact because people thought I was trans	29 (17.6)	170 (14.2)	510 (6.1)	127.8	**<.001**
Any type (verbal, physical or sexual)	87 (52.7)	741 (62.0)	2043 (24.5)	749.3	**<.001**

Table 4.

Outcomes, Adjusted for Type of K-12 Harassment Experienced.

Adult social transition (18+) serves as the reference group for all multivariable models.

	Childhood Social Transition, 3-9 (compared to Adults, 18+) (N=165)		Adolescent Social Transition, 10-17 (compared to Adults, 18+) (N=1196)		Childhood Social Transition, 3-9 (compared to Adolescents, 10-17) (N=165)	
	aOR (95% CI)	p	aOR (95% CI)	p	aOR (95% CI)	p
Suicidality (Past 12 months)						
Lifetime suicidal ideation [a]	0.8 (0.4 – 1.8)	.60	0.9 (0.6 – 1.2)	.36	1.8 (0.5 – 6.5)	.41
Past-year suicidal ideation [b]	1.0 (0.6 – 1.7)	.96	1.2 (0.9 – 1.4)	.20	0.7 (0.3 – 1.7)	.40
Past-year suicidal ideation with plan [c]	1.3 (0.6 – 2.5)	.52	1.1 (0.8 – 1.5)	.44		
Lifetime suicide attempt [d]	1.4 (0.8 – 2.5)	.20	1.2 (1.0 – 1.5)	.08		
Past-year suicide attempt [b]	1.2 (0.5 – 3.1)	.65	1.2 (0.8 – 1.7)	.39		
Past-year suicide attempt resulting in medical attention [e]	1.9 (0.6 – 6.8)	.35	1.1 (0.7 – 1.8)	.66		
Mental Health & Substance Use						
Past-month severe psychological distress (K6 ≥ 13) [b]	0.7 (0.4 – 1.3)	.31	0.9 (0.8 – 1.2)	.65	1.1 (0.5 – 2.7)	.82
Lifetime illicit drug use [f]	0.9 (0.5 – 1.6)	.81	0.9 (0.7 – 1.2)	.54		
Lifetime marijuana use [g]	0.7 (0.5 – 0.8)	**<.001**	0.7 (0.5 – 1.2)	.18		

Note: All models were adjusted for the following covariates: K-12 harassment, current age, education level, family support for gender identity, and ever received treatment with gender-affirming hormones.

[a] Also adjusted for gender identity, sexual orientation, race, employment status, total household income, lifetime exposure to gender identity change efforts, time to social transition, and ever received treatment with pubertal suppression.

[b] Also adjusted for gender identity, sexual orientation, race, employment status, relationship status, total household income, lifetime exposure to gender identity change efforts, and time to social transition.

[c] Also adjusted for gender identity, sexual orientation, employment status, total household income, lifetime exposure to gender identity change efforts.

[d] Also adjusted for sexual orientation, race, education level, employment status, total household income, lifetime exposure to gender identity change efforts, and time to social transition.

[e] Also adjusted for relationship status and time to social transition.

[f] Adjusted for gender identity, sexual orientation, employment status, relationship status, total household income, lifetime exposure to gender identity change efforts, and time to social transition.

[g] Adjusted for gender identity, sexual orientation, employment status, relationship status, total household income, and time to social transition.

Exhibit “F”

Jack Turban MD 🏳️‍⚧️🧠🏳️‍🌈🩺 ✅

@jack_turban

Summary: Gender-affirming medical care for #trans youth has been woefully politicized. Decisions in this space should be made by doctors and families, not politicians who hold no expertise in this area. We should follow the Endocrine Society guidelines, not political nonsense.

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Exhibit “G”

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It's possible that many transgender children will, in fact, change their minds about medically transitioning. | Getty Images

Alex was born with male anatomy. She grew up knowing she was "supposed to be a boy," but as a young child, she never felt like that gender fit. When she hit puberty, she became anxious and depressed about how her body was becoming more masculine. She started dressing in gender-neutral clothing and wearing makeup, and was happy when strangers perceived her as a girl.

In ninth grade, she took on a female name and came out as transgender to her friends at boarding school. She started going to a therapist, who diagnosed her with gender dysphoria. At 15, she asked to transition, and her parents, though reluctant, brought her to the Boston Children's Hospital Gender Management Service, where she started a puberty-blocking medication. She was prescribed estrogen pills about a year later to help her go through female puberty.

After four months on the hormonal medications, she decided she did not identify as female but rather as gender nonbinary (neither male nor female) and would use the gender-neutral pronouns they, them, and theirs. At this point, they also stopped the medications and went through male puberty.

Alex, whose case I described recently in the journal ***JAMA Pediatrics*** with two other Harvard physicians, has no regrets about taking the hormones. Though the hormones left Alex with some cosmetic changes — redistribution of body hair and fat — Alex says they were necessary to fully solidify their gender identity. (Their name was changed to protect their privacy.)

As a doctor and researcher who studies the mental health of transgender youth, I was alarmed to learn that the **Trump administration is planning** to invalidate the experiences of transgender people by **defining gender** based on a person's genitalia at birth. This comes in the midst of a flurry of media stories about transgender youth who choose to stop hormone therapies, ranging

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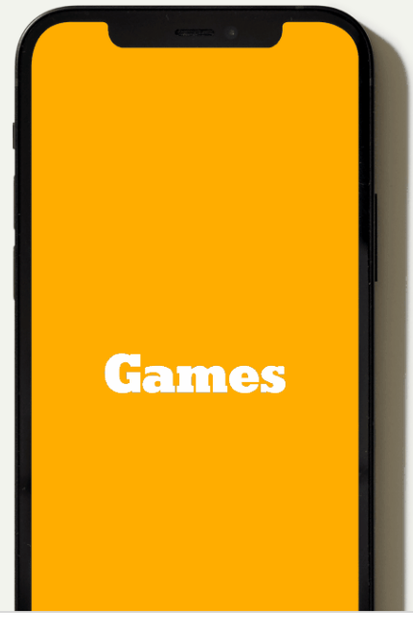

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The reality could not be further from the truth.

The vast majority of transgender kids who begin hormonal treatments do not change their minds about medically transitioning. For the very small percentage who do, like Alex, this isn't the horrible outcome that conservative media outlets lead people to believe. Sometimes "de-transitioning" is just part of a person's healthy psychological development.

How likely is your transgender child to change their mind?

Before parents let their children start hormone therapies, they often want to know how likely their child is to later change their mind about transitioning. The answer depends on if their child has hit puberty.

For adolescents who have reached the earliest stages of puberty, the odds are very low. **A large study** of transgender adolescents from the Netherlands found that only 1.9 percent of those who hit puberty and start puberty blockers decide to stop treatment like Alex did.

There is **more debate** around how likely prepubescent children are to later not identify as transgender. For this reason, they are not offered hormone therapies. They also, by definition, have not yet started puberty, and thus there is no puberty to block and no need for hormone therapy.

AD

Parents should not panic about reversible interventions for transgender youth

It's possible that many prepubescent transgender children will, in fact, change their minds about transitioning medically. We don't have great research to know.

Luckily, the interventions that doctors would recommend for kids

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this young are completely safe and reversible. **Medical guidelines** advise that prepubescent children not be offered any hormonal interventions. What a psychologist or psychiatrist might recommend is allowing the child to "socially transition" if the child so desires.

RELATED

"Embracing a child when they come out as transgender can be a matter of life and death"

A social transition may involve the child taking on a new name or new pronouns, or wearing stereotypical gendered clothing. Mostly, it means not placing restrictions on how your child wants to express their gender. A social transition is, of course, completely reversible, and not inherently dangerous.

Early studies have shown that transgender youth who are allowed to socially transition have mental health nearly indistinguishable from their cisgender peers (a stark contrast to past studies of transgender youth who weren't allowed to socially transition who had high levels of anxiety and depression). If a child stops identifying as transgender at this stage, they simply go back to the pronouns, dress, etc. of their gender assigned at birth.

Again, if a child has hit puberty and identifies as transgender, they are much less likely to later stop identifying as transgender. At this stage, a doctor may offer a "puberty blocker." These medications temporarily stop puberty from progressing, allowing the adolescent more time to explore and understand their gender identity. (It's very helpful for the adolescent to be in psychotherapy during this time to navigate these decisions.)

Puberty blockers like Lupron are approved by the Food and Drug Administration and have been used for decades for precocious puberty, a condition in which very young children go through puberty too early. The only significant side effect is that the adolescent may fall behind on bone density. For this reason, doctors will regularly check bone density while the patient is on the medication. If the medication is stopped, bone density catches up to normal after a few years as the child goes through the puberty of their gender assigned at birth.

Alternatively, if an adolescent continues to identify as transgender and starts on gender-affirming hormones like estrogen or testosterone down the line, this will also catch them up on bone density. The great thing about puberty blockers is that if you stop them, puberty will progress as if the medication were never started. Parents can think of a puberty blocker as buying their children more time to figure out their gender identity without going through puberty.

AD

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The potential mental health benefits of gender-affirming hormones usually outweigh the risks

Gender-affirming hormones like estrogen and testosterone are bigger decisions. They are generally not prescribed until a patient is 16 (though they can be prescribed as early as 14 in **select clear-cut cases**). They will cause body changes that are not easily reversed, like body fat redistribution and changes in body hair. Adolescents should be counseled extensively before starting these medications.

Parents should also remember, however, that these changes are mostly cosmetic. The potential benefits from gender-affirming hormones (improved mental health) will usually outweigh the low risk of an adolescent later changing their mind and regretting cosmetic changes. This risk-benefit analysis should be carefully discussed in therapy before these drugs are started.

Surgery is, of course, irreversible and requires serious thought. Big surgeries like phalloplasty (construction of a penis) and vaginoplasty (construction of a vagina) are not offered until patients have reached adulthood.

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I photograph trans and nonbinary kids. It's made me rethink my own gender.

Every decision in medicine involves weighing risks and benefits. Lipitor, a medicine doctors use to prevent stroke, also increases the risk of rhabdomyolysis, a condition of muscle breakdown that can damage the kidneys. However, the potential benefit of preventing stroke far outweighs the potential risk of this unlikely event.

The same is true for transgender youth and gender-affirming care. Will a small number change their minds about medically transitioning? Yes. Does this mean we should **withhold a treatment** that has a high likelihood to provide a big mental health benefit? No.

Jack Turban is a resident physician in child and adolescent psychiatry at Massachusetts General Hospital and McLean Hospital. His research focuses on the mental health of transgender and gender diverse youth.

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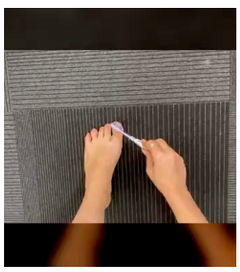

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Attorneys for Plaintiff
AURORA REGINO

**Pro Hac Vice Motion Forthcoming*

IN THE UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF CALIFORNIA

AURORA REGINO, **Plaintiff,** **vs.** **SUPERINTENDENT KELLY STALEY, in her official capacity; CAITLIN DALBY, in her official capacity; REBECCA KONKIN, in her official capacity; TOM LANDO, in his official capacity; EILEEN ROBINSON, in her official capacity; and MATT TENNIS, in his official capacity,** **Defendants.**	**Case No.: 2:23-cv-00032-JAM-DMC** **PLAINTIFF'S CONDITIONAL REPLY IN SUPPORT OF MOTION FOR PRELIMINARY INJUNCTION** Hearing Date: February 28, 2023 Time: 1:30 p.m. Complaint Filed: January 6, 2023 Trial Date: Not Yet Set

Proposed Intervenor Genders & Sexualities Alliances Network ("GSA") is not a party to this case and has no right to file briefs and other documents in it. For this reason, Plaintiff Aurora Regino has moved to strike GSA's Proposed Opposition to her Motion for Preliminary Injunction (the "Proposed Opposition") and the proposed declaration of GSA's proposed expert, Dr. Jack Turban. Out of an abundance of caution, however, Ms. Regino hereby files this Conditional Reply to respond to the arguments in the Proposed Opposition. For the reasons set forth below, the Proposed Opposition is without merit, and the Court should enjoin the Parental Secrecy Policy.

INTRODUCTION

While GSA purports to be an advocate for transgender students, the Parental Secrecy Policy harms children. GSA's own proposed expert agrees that social transitioning is a potentially powerful form of psychological treatment, and he does not dispute that it should only occur with parental involvement. By allowing untrained school personnel to treat children—who could be as young as five years old—without input from either their parents or a qualified mental health professional ("MHP"), the Policy provides transgender-identifying students substandard care that is likely to be harmful to their overall health and wellbeing. This infringes on parents' fundamental right to direct the medical care of their children and harms the children in the process.

GSA asserts that the Policy is justified by compelling reasons, but because the District did not consider those reasons when adopting the Policy, they are not relevant here. In any event, the theoretical reasons for the Policy that GSA advances are not compelling and are not narrowly tailored to achieve them. Instead, the Policy is a blunt instrument that treats every parent as a threat to their children based on nothing more than the child's desire to avoid parental involvement. This precludes even supportive parents—like Ms. Regino—from participating in this important aspect

of their children's lives and harms the very people the Policy purports to benefit. Accordingly, the District should be preliminarily enjoined from enforcing the Policy.

ARGUMENT

I. THE POLICY INFRINGES MS. REGINO'S FUNDAMENTAL RIGHTS

GSA argues the Policy is permissible because (1) Ms. Regino has no right to direct the District's curriculum and (2) social transitioning is not psychological treatment. Both arguments are incorrect.

A. Ms. Regino Does not Seek to Control the District's Curriculum

GSA's argument that Ms. Regino seeks to control the District's curriculum decisions does not materially add to the District's same argument. Ms. Regino therefore incorporates her Reply to the District's Opposition in full. (*See* Pl's Reply to District Opp'n at 3–4.)

GSA does cite one case the District did not—*California Parents for the Equalization of Educ. Materials v. Torlakson*, 973 F.3d 1010, 1018 (9th Cir. 2020)—but even a quick review of that case reveals why the District did not cite it. In *Torlakson*, the Ninth Circuit quoted language from *Fields v. Palmdale School District* ("*Fields I*"), providing that parental rights "do[] not extend beyond the threshold of the school door." 973 F.3d at 1020 (quoting *Fields I*, 427 F.3d 1197, 1207 (9th Cir. 2005)). In *Fields I*, however, in response to the plaintiffs' petition for rehearing *en banc*, the Ninth Circuit *expressly repudiated that language*. *Fields v. Palmdale Sch. Dist. (PSD)*, 447 F.3d 1187, 1190–91 (9th Cir. 2006) ("*Fields II*") ("[W]e delete the sentence appearing at lines 9–10 of page 15076 of the Slip Opinion[.]"). In its place, the Ninth Circuit held instead that the substantive due process clause "does not entitle individual parents to enjoin school boards from *providing information* the boards determine to be appropriate in connection with the performance of their educational functions." *Id.* (emphasis added). This is a material narrowing of *Fields I*.

Torlakson did not mention *Fields II*. It thus appears that the panel in *Torlakson* was unaware the language it applied had been replaced with a narrower holding. In any event, because a subsequent panel of the Ninth Circuit may not overrule a prior one, *In re Findley*, 593 F.3d 1048, 1050 (9th Cir. 2010), *Fields II*—and not *Fields I* or *Torlakson*—is a correct statement of the law.

B. Affirming a Child's Transgender Identity is Psychological Treatment

GSA contends social transitioning can "alleviat[e] the medical problem of gender dysphoria." (Prop. Opp'n at 13:12–13.) Indeed, GSA cites numerous studies explaining why social transitioning and gender affirmation more generally can alleviate depression, anxiety, and suicidal ideation. (*Id.* at 9 n.2, 14 n.5, n.6, 15 n.9.) But GSA also asserts that social transitioning is *not* sychological treatment. (*Id.* at 11:22–13:19.) This assertion contradicts the case law and medical consensus and has no basis in fact.

The Ninth Circuit has observed that social transitioning constitutes treatment for gender dysphoria. In *Edmo v. Corizon, Inc*., the Court considered whether the Eighth Amendment required a state prison to provide a transgender-identifying inmate certain gender-affirming care. 935 F.3d 757 (9th Cir. 2019). In holding that it did, the Court noted that "*treatment* options for individuals with gender dysphoria" include "changes in gender expression and role (which may involve *living . . . in another gender role*)." *Id.* at 770 (emphases added). Other courts have concluded the same. *See Monroe v. Meeks*, 584 F. Supp. 3d 643, 678 (S.D. Ill. 2022) (concluding that "[s]ocial transition . . . is a *medically necessary component of treatment* for some prisoners with gender dysphoria") (emphasis added); *Pinson v. Hadaway*, No. 18-CV-3420-NEB-KMM, 2020 WL 6121357, at *1 (D. Minn. July 13, 2020) (similar), *report and recommendation adopted*, No. 18-CV-3420 (NEB/KMM), 2020 WL 5543749 (D. Minn. Sept. 16, 2020); *Porter v. Allbaugh*, No. 18-CV-0472-JED-FHM, 2019 WL 2167415, at *2 (N.D. Okla. May 17, 2019) (similar).

Further, the American Medical Association, the American Academy of Pediatrics, the American Association of Child & Adolescent Psychiatry, the Endocrine Society, and the Pediatric Endocrine Society, among others, all agree. They state: "[t]he recommended *treatment* for transgender people with gender dysphoria includes assessment, counseling, and, as appropriate, *social transition.*" (Amici Br., *Adams by & through Kasper v. Sch. Bd. of St. Johns Cnty.*, 57 F.4th 791 (11th Cir. 2022) at 10-11 (emphasis added); *see also* Plaintiff's Request for Judicial Notice ("RJN") Ex. A at 12.) In addition, WPATH notes that social transition is effective at "reduc[ing] gender dysphoria/incongruence." *See, e.g.*, E. Coleman, *et al.*, *Standards of Care for the Health of Transgender and Gender Diverse People*, Version 8, Int'l J. of Transgender Health (Sept. 15, 2022) ("WPATH 2022"), RJN Ex. B at S107.

In his own publications, GSA's proposed expert, gender-affirming activist Dr. Jack Turban, also recognizes that social transitioning and other affirmation techniques constitute psychological treatment. (*See* Turban, J.L., *et al.*, *Gender Incongruence & Gender Dysphoria* (2018) (discussing social transitioning as a therapeutical model that "must be carefully individualized with a nuanced understanding of the child's gender identification"), RJN Ex. C at 640.) Further, according to Dr. Turban, social transitioning must include "an open discussion with the child highlighting that . . . the patient is free to transition back at any time." (*Id.*[1]) In his proposed Declaration, Dr. Turban cites over two dozen sources, many of which discuss the benefits of social transitioning as treatment for gender dysphoria. (*See, e.g.*, Turban Decl. (Dkt. No. 22-3) ¶¶ 12 n.1, 13 n.3.[2]) This

[1] The Policy contains no requirement that the District either "carefully individualize[s]" students' social transition plan or inform students they may "transition back" before socially transitioning them, nor does the District introduce any evidence that it complies with Dr. Turban's requirements on these points.

[2] *E.g.*, Hembree, W. C., *et al.*, *Endocrine treatment of gender-dysphoric/gender-incongruent persons: an endocrine society clinical practice guidelin*e, the Journal of Clinical Endocrinology & Metabolism, (2017), RJN Ex. D. Turban, J. L., *et al.*, *Timing of social transition for transgender and gender diverse youth, K-12 harassment, and adult mental health outcomes*, Journal of Adolescent Health, at 639 (2021) ("Social transition after the onset of puberty (*i.e.*, during

conclusion comports with Dr. Levine's expert opinion that social transitioning and other gender-affirming care constitutes psychological treatment. (Levine Aff. (Dkt. No. 1-1) ¶¶ 106-110.) Indeed, the *very purpose* of gender affirmation is to alleviate psychological distress. This is psychological treatment, which parents have the right to control. *Parham*, 442 U.S. at 602.

Importantly, moreover, Dr. Turban does not dispute Dr. Levine's testimony that parental involvement is critical when a school socially transitions a child. (Levine Aff. ¶¶ 185–213). In fact, he agrees that "[d]ecisions in this space should be made by doctors *and families*, not politicians who hold no expertise." (RJN Ex. F (emphasis added); *see also* Jack Turban, *It's okay to let your transgender kid transition – even if they might change their mind in the future*, Vox (Oct. 22, 2018), https://www.vox.com/2018/10/22/18009020/transgender-children-teens-transition-detransition-puberty-blocking-medication ("It's very helpful for the adolescent to be in psychotherapy during this time to navigate these decisions."), RJN Ex. G.) In sum, social transitioning is psychological treatment, and for it to be effective, parents must be involved.

II. THE POLICY FAILS UNDER STRICT SCRUTINY

Because the Policy infringes Ms. Regino's fundamental parental rights, it may only be justified by strict scrutiny. *Washington v. Glucksberg*, 521 U.S. 702, 720 (1997); *Nunez by Nunez v. City of San Diego*, 114 F.3d 935 (9th Cir. 1997). The Policy does not satisfy this standard.

A. The Court May Only Consider the District's Actual Purposes

GSA contends that the Policy is supported by three justifications: (1) student privacy, (2) affirming student gender identities, and (3) fostering an inclusive educational environment. (GSA

adolescence or adulthood) has been somewhat less controversial in medical and mental health guidelines than childhood social transition, albeit often controversial in communities."), RJN Ex. E at 2.

Prop. Opp'n at 13:26–17:4.) But because the District asserts *only* that it adopted the Policy to protect student privacy, the other two justifications GSA raises are theoretical and thus irrelevant.

In determining whether a government policy complies with strict scrutiny, the Court may look only at the policy's "actual purpose" and not other potential purposes. *Shaw v. Hunt*, 517 U.S. 899, 908 n.4 (1996). The "actual purpose" requirement exists because "government action cannot withstand strict scrutiny based upon speculation about what may have motivated the government action." *Id.* (cleaned up). Here, the only governmental purpose the District invoked as the basis for the Policy was student privacy. (District Opp'n at 14:17.) Accordingly, the Court should disregard the additional speculative purposes raised by GSA.

B. Student Privacy is not a Compelling Interest

GSA's argument that student privacy is a compelling interest does not materially add to the District's argument on this same point. Ms. Regino therefore incorporates her Reply to the District's Opposition in full. (*See* Pl's Reply to District Opp'n at 4–6.)

C. The Policy is not Narrowly Tailored to Student Privacy

Even if student privacy were a compelling interest (and it is not), the Policy is not narrowly tailored to that end. Instead, the Policy assumes that all parents of transgender-identifying students wish to harm their children based on nothing more than the child's desire to avoid bringing their parents into the process. This does not come close to being narrowly tailored.

Like the District, GSA does not seriously engage with the constitutionally mandated presumptions of parental fitness and affinity. *Parham*, 442 U.S. at 602. Indeed, GSA's argument that requiring parental notice and consent makes these students "[un]safe" and subjects them to parental "discrimination" (GSA Prop. Opp'n at 16:14, 17:18), treats every parent as a potential threat to their child, thus presuming the *exact opposite* of what the Constitution requires. *See*

Stanley v. Illinois, 405 U.S. 645, 658 (1972) (invalidating statute that that presumed unmarried fathers are unfit as parents); *Doe v. Heck*, 327 F.3d 492, 521 (7th Cir. 2003) (holding parents' rights violated where state actors "not only failed to presume that . . . parents would act in the best interest of their children, they assumed the exact opposite").

While Ms. Regino agrees that the District need not "exhaust every conceivable alternative" to the Policy (GSA Prop. Opp'n at 17:10–11 (cleaned up)), the District must at least show that no "workable alternatives" would achieve the governmental interest at issue, *Fisher v. Univ. of Texas at Austin*, 570 U.S. 297, 312 (2013) (cleaned up). The Policy makes no effort whatsoever to account for supportive parents—like Ms. Regino—preferring instead to pretend they simply do not exist. This is the antithesis of narrow tailoring.

D. The Policy Does not Otherwise Satisfy Strict Scrutiny

Even assuming the Court may consider the theoretical justifications GSA invokes (and it should not), the Policy still does not satisfy strict scrutiny.

GSA asserts that the District has a compelling interest in "affirming student gender identity" and "fostering inclusive educational environments." (GSA Prop. Opp'n at 13:26, 16:21–22.) To the extent these purposes differ from one another, they both fail. As an initial matter, these "broad formulation[s]" are insufficient to establish a compelling interest. *Green v. Miss United States of Am., LLC*, 52 F.4th 773, 792 (9th Cir. 2022). While GSA alleges that pursuing these interests leads to better mental health outcomes, GSA does not attempt to demonstrate these alleged benefits *arise from excluding parents from the social transitioning process*. That is the issue in this case, not an abstract interest in affirmation or inclusivity, and GSA has failed to make that link or to rebut Dr. Levine's expert testimony that allowing children to have separate gender identities at home and at school is "inherently psychologically unhealthy." (Levine Aff. ¶ 201.)

As for narrow tailoring, Ms. Regino does not seek to preclude the District from "affirming student gender identity" or "fostering inclusive educational environments" generally. Rather, she seeks only to preclude the District from socially transitioning students behind their parents' backs based on nothing more than the child's say-so. Even if the Court grants Ms. Regino everything she seeks, the District can still report abusive parents, prohibit bullying and harassment of LGBTQ+ students, provide support to LGBTQ+ students, and socially transition students so long as parents are involved. The parental-secrecy aspects of the District's affirmation and inclusion efforts serve a small role in advancing the District's broader goals. The District could accomplish its purposes without treating every parent as potentially abusive.

Finally, the District's efforts at affirmation and inclusivity go too far. By socially transitioning children who do not have gender dysphoria—including young children who may seek social transitioning because of reasons other than a "true" transgender identity—the District is impermissibly using a cannon to kill a mosquito. Not even WPATH recommends socially transitioning *every* child who asserts a transgender identity, (WPATH 2022, RJN Ex. B at S77), and in its zeal to affirm and be inclusive, the Policy leaves innocent children as collateral damage.

III. THE POLICY VIOLATES MS. REGINO'S PROCEDURAL RIGHTS

GSA's attack on Ms. Regino's procedural due process claims is uniquely unpersuasive. (GSA Prop. Opp'n at 18.) To be clear, Ms. Regino makes the straightforward claims that the Policy deprives her of a constitutionally protected liberty interest without due process of law in the form of a reasonable investigation, notice, and an opportunity to be heard. (Compl. ¶¶ 68–75; *see also* Pl.'s Mem. in Supp. of Mot. Prelim. Inj. at 17, 19.) She does not allege, as GSA suggests, that the process the District used *in adopting the Policy* was deficient. *Cf. Jacobs v. Clark Cnty. Sch. Dist.*, 526 F.3d 419, 441 (9th Cir. 2008) (rejecting plaintiff's contention that school district "instituted

school uniform policies absent the requisite level of parental approval"); *Gunter v. N. Wasco Cnty. Sch. Dist. Bd. of Educ.*, 577 F. Supp. 3d 1141, 1160-61 (D. Or. 2021) (concluding that school board is not required to "consider parental input before implementing a policy").

Moreover, the rule that procedural due process protections do not apply to governmental action that is "legislative in nature" has no application here. *Halverson v. Skagit Cnty.*, 42 F.3d 1257, 1261 (9th Cir. 1994). That rule applies only to state- or county-wide regulation that affects "vast areas and large numbers of people." *Id.* That is plainly not the case here.

IV. MS. REGINO SATISFIES THE OTHER RULE 65 FACTORS

When balancing the harms and evaluating the public interest, the Court must consider both (1) the Policy's impact on parents' rights and (2) the risk of harm to students created by the Policy. *CTIA - The Wireless Ass'n v. City of Berkeley*, 928 F.3d 832, 852 (9th Cir. 2019) (balancing harms requires the court to consider "the interests of all parties and weigh the damage to each"). As discussed, the Policy allows untrained school staff to perform psychological treatment on children behind their parents' backs and without the guidance of qualified MHPs based on nothing more than children's assertion of a transgender identity and a statement that they do not want their parents involved. WPATH teaches that social transitioning is psychological treatment, with potential life-long implications, that should be conducted with parental involvement and under the supervision of a qualified MHP. (WPATH 2022 at S69 (recommending that MHPs "working with gender diverse children . . . have expertise in gender development and gender diversity in children and possess a general knowledge of gender diversity across the life span"), RJN Ex. B; *see also* Turban Decl. ¶¶ 18 n.10, 19; Turban, Vox, *supra*.) By socially transitioning children without parental involvement, the District is indisputably (1) providing psychological treatment to non-gender-dysphoric children who do not need it and could be harmed by it, and (2) for those children

that do need assistance, precluding parents from involving a skilled MHP to help guide them and their children through this consequential decision in their lives. In so doing, the District has "arrogat[ed] . . the parental role" to itself, *Gruenke v. Seip*, 225 F.3d 290, 306 (3d Cir. 2000), at the expense of its students' health and wellbeing.

Moreover, if the Court temporarily enjoins the Policy, the District may still report parents to the proper authorities when necessary, so concerns about preventing child abuse are red herrings. What the District may not do is presume all parents are abusive or unsupportive. Doing so harms children and infringes on the rights of parents by cutting them out of their children's lives.

Despite GSA's efforts to portray the District's involvement as little more than a supportive voice in the distance, the District is no passive actor here. Rather, the District affirmatively creates an environment in which transgender-identifying students may inhabit a new identity for hours on end every day. (*See* Turban Decl. ¶ 19.) As all experts in this proceeding agree, this immersion into a new identity has a powerful impact on children and can dramatically alter outcomes. (*Id.* ¶¶ 33–35; Levine Aff. ¶ 106.) Because the Policy results in the District providing psychological treatment when none is needed—and providing inadequate treatment when it is—enjoining the Policy is in the public interest.

CONCLUSION

For these reasons, Ms. Regino respectfully requests that the Court grant her Motion for Preliminary Injunction and preliminarily enjoin the Policy immediately.

Respectfully submitted,

Dated: February 21, 2023

DHILLON LAW GROUP INC.
CENTER FOR AMERICAN LIBERTY

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