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Advancing the Practice of Pediatric Psychology with Transgender Youth: State of the Science, Ongoing Controversies, and Future Directions

Diane Chen, PhD,

Division of Adolescent Medicine and Department of Child and Adolescent Psychiatry, Ann & Robert H. Lurie Children's Hospital of Chicago, and Departments of Psychiatry & Behavioral Sciences, and Pediatrics, Northwestern University Feinberg School of Medicine

Laura Edwards-Leeper, PhD,

School of Graduate Psychology, Pacific University

Terry Stancin, PhD, and

Departments of Psychiatry, Pediatrics & Psychology at MetroHealth Medical Center and Case Western Reserve Medical School

Amy Tishelman, PhD

Departments of Psychiatry and Endocrinology, Boston Children's Hospital and Harvard Medical School

Abstract

Growing numbers of transgender and gender-nonconforming (TGNC) youth are presenting for medical and mental health care, and increasingly, pediatric psychologists are being called upon to serve as critical members of interdisciplinary care teams. In this commentary, we present information on TGNC youth in three distinct developmental cohorts: prepubescent TGNC children, peripubertal TGNC youth, and pubertal TGNC adolescents. First, we describe the social, medical, and/or surgical treatments available to each cohort of youth. Next, we address the state of the science related to these treatments. Then, we highlight some of the ongoing controversies related to social, medical and/or surgical interventions that are most relevant to pediatric psychologists and the role they play in gender-affirming care. Finally, we conclude with a call for papers for an upcoming special issue of *Clinical Practice in Pediatric Psychology* focused on advancing the practice of pediatric psychology in transgender health care. **Keywords:** gender dysphoria; transgender; gender diversity; interdisciplinary care; gender affirmative care

Championed by pediatric endocrinologist, Norman Spack, MD, the first interdisciplinary pediatric gender clinic in the United States (US) was established in 2007 at Boston Children's Hospital to provide medical transition services to transgender youth (Edwards-Leeper & Spack, 2012). Since that time, more than 35 such programs have been launched in the US (Hsieh & Leinger, 2014) to keep up with demand for services. Indeed, growing

Correspondence concerning this commentary should be addressed to Diane Chen, PhD, Department of Child & Adolescent Psychiatry and Division of Adolescent Medicine, Ann & Robert H. Lurie Children's Hospital of Chicago, 225 East Chicago Avenue, Box 10B, Chicago, IL 60611, USA. DiChen@luriechildrens.org.

numbers of transgender and gender-nonconforming (TGNC; see Table 1 for key terminology) youth are presenting for medical and mental health care (M. Chen, Fuqua, & Eugster, 2016), and increasingly, pediatric psychologists are being called upon to serve as critical members of interdisciplinary care teams (D. Chen et al., 2016; Cousino, Davis, Ng, & Stancin, 2014; Tishelman et al., 2015).

Over the last decade, we have seen a sea change in approach to pediatric transgender care, with the gender affirmative model now widely adopted as preferred practice (Edwards-Leeper, Leibowitz, & Sangganjanavanich, 2016; Hidalgo et al., 2013). The gender affirmative model is based on findings that parental support is associated with improved mental health functioning among transgender adolescents (Simons, Schragar, Clark, Belzer, & Olson, 2013) and the expectation that earlier gender identity affirmation will result in decreased rates of psychopathology (Olson, 2016). Central to this paradigm shift away from pathologizing gender nonconformity is the belief that youth's asserted gender identity, expressions, and related experiences are valid, and that youth should be supported to "live in the gender that feels most real or comfortable to that child" (Hidalgo et al. 2013, p. 286). But, as Edwards-Leeper and colleagues (2016) caution, translating an affirmative approach into a conceptual treatment model for TGNC youth is not an easy endeavor as clinical care with this population is inherently complex and exacerbated by the relative lack of empirical research to guide treatment.

As pediatric psychologists trained in evidence-based care, we have been challenged to identify best practices in the absence of substantive research evidence. "Doing nothing" is not a neutral decision, as research suggests that nearly half of transgender youth experience suicidal ideation and nearly a quarter have made an attempt, with suicide attempts significantly associated with lower body esteem (Grossman & D'Augelli, 2007). Guidelines for clinical care have been established based on the collective expertise of clinicians working with TGNC youth and are rapidly evolving, outpacing outcomes research in this vulnerable population. In the last ten years, relatively new medical treatments such as pubertal suppression with gonadotropin releasing hormone analogues (GnRHa) have become standard of care for transgender youth (Hembree et al., 2009). More recently, the updated Endocrine Society guidelines (Hembree et al., 2017) spoke more directly to the potential benefit of inducing partially irreversible phenotypic changes with gender-affirming hormones (GAH; estrogen or testosterone) earlier than "around 16 years of age," which was recommended in its previous iteration (Hembree et al., 2009). In addition, there is increasing debate regarding appropriate ages for surgical intervention (Milrod & Karasic, 2017). While the World Professional Association of Transgender Health (WPATH) does not recommend genital surgery prior to the age of legal majority (Coleman et al., 2012), it is not uncommon for transgender young men to pursue chest masculinization surgery with parental support and consent during adolescence. Additional discourse centers around the potential benefits of vaginoplasty in transgender young women prior to age 18 (Milrod & Karasic, 2017).

As standards of care shift toward offering gender-affirming medical and surgical treatment earlier in development, pediatric psychologists' expertise in child and adolescent development, family systems, and developmental psychopathology increasingly will be utilized for numerous aspects of interdisciplinary care. While there is some controversy

regarding the role of pediatric psychologists on gender health teams (Olson-Kennedy, 2016), we have historically been fundamental team members, relied upon for our broad training and flexible skill set, which enable us to assess child and family functioning and risks, developmental needs, ecological and cultural strengths and challenges, and to assist youth and families in decision-making about complex issues such as fertility interventions. Trained appropriately, pediatric psychologists can assess for gender dysphoria (GD) as well as any co-occurring mental health needs and work with families to develop treatment plans, in collaboration with our physician colleagues. In addition, an increasingly visible population of prepubescent TGNC children also has emerged in recent years (Ehrensaft, 2014). Pediatric psychologists may be asked to weigh in on how to foster positive development in TGNC young children and for guidance regarding the potential benefits and risks of social transition.

In this commentary, we present information on TGNC youth in three developmental cohorts: prepubescent TGNC children, peripubertal TGNC youth, and pubertal TGNC adolescents. First, we describe the social, medical, and/or surgical treatments available to each cohort. Next, we address the state of the science related to these treatments. Then, we highlight ongoing controversies related to social, medical and/or surgical interventions that are most relevant to pediatric psychologists and the role they play in gender-affirming care. Finally, we conclude with a call for papers for an upcoming special issue of *Clinical Practice in Pediatric Psychology* focused on advancing the practice of pediatric psychology in transgender health care.

Prepubescent TGNC Children

Treatment Options

Prior to puberty, there is no indication for medical or surgical intervention. Thus, guidance for TGNC children and families typically address psychoeducation regarding gender development, family dynamics, and how to best preserve and foster social/cultural, emotional and behavioral well-being. While there is no consensus on a clinical approach to care for prepubescent TGNC children (de Vries & Cohen-Kettenis, 2012; Ehrensaft, 2014; Zucker, Wood, Singh, & Bradley, 2012), there is recognition that attempts to actively steer a child's gender identity or expression toward conformity with their birth-assigned sex is typically unsuccessful and carries significant risks of harm (SAMHSA, 2015). Although controversial, social transition is occurring more frequently among prepubescent children. Social transition allows children with GD an opportunity to explore living in their affirmed gender before committing to any medical interventions. Children can continue to explore gender identity and expressions following a social transition, with the option of returning to a social presentation more consistent with their birth-assigned sex at a later point if desired as they continue to mature.

State of the Science

To date, two studies have explored psychosocial functioning in socially transitioned prepubertal children. Olson and colleagues (Olson, Durwood, DeMeules, & McLaughlin, 2016) compared parent-reported symptoms of depression and anxiety in a sample of socially

transitioned prepubertal children ($n=73$) to age- and gender-matched community controls ($n=73$) and their own cisgender siblings ($n=49$). Results show that transgender children did not differ from either control group on depression scores and had only marginally higher anxiety scores (Olson et al., 2016). A follow-up study explored self-reported depression, anxiety, and self-worth and also found that socially transitioned transgender young children ($n=63$) did not differ from sibling- ($n=38$) and community-control groups ($n=63$) on ratings of depression or self-worth and had marginally higher self-reported anxiety (Durwood, McLaughlin, & Olson, 2017). Both studies have acknowledged limitations (e.g., possible sample bias), but provide emerging evidence that socially transitioned transgender young children may do quite well psychosocially, in striking contrast to historical studies that show significantly elevated rates of internalizing psychopathology among children referred for gender-related concerns (Cohen-Kettenis, Owen, Kaijser, Bradley, & Zucker, 2003; Wallien, Swaab, & Cohen-Kettenis, 2007).

Ongoing Controversies

Degree to which gender identity in prepubertal TGNC children is stable—

Among the most cited outcomes of TGNC children in the popular media is the statistic that roughly 80% of these children will not “persist” in identifying as transgender in adolescence and adulthood (Olson, 2016). Indeed, studies show that between 12% (Drummond, Bradley, Peterson-Badali, & Zucker, 2008) and 27% (Wallien & Cohen-Kettenis, 2008) of prepubescent children referred for gender identity disorder/GD continue to meet diagnosis for GD in adolescence. However, these studies have been criticized on a number of grounds, including: (1) authors classified children who were lost to follow-up as “desisters” although these children’s subsequent gender identity was never verified, thus amplifying the “desister” group; (2) authors may have conflated two distinct groups of children through flawed methodology by classifying gender-nonconforming children in the same group as those with more severe GD; and (3) authors used the decision to pursue medical intervention as the outcome variable to signify persistence; however, we know that not all transgender individuals are able to pursue and/or desire medical interventions (Gridley et al., 2016; Safer et al., 2016).

Effect of social transition on gender identity development—Retrospective research has shown that prepubertal social transition is associated with “persistence” of GD in adolescence (Steensma, McGuire, Kreukels, Beekman, & Cohen-Kettenis, 2013). However, it remains unclear whether it is early social transition that leads a child to identify as transgender later in life or whether it is those children most likely to later identify as transgender who are also more likely to transition socially during childhood.

Relative harm of encouraging social transition—Steensma and Cohen-Kettenis (2011) describe two gender-nonconforming girls who socially transitioned in elementary school and struggled to transition back to their birth-assigned sex out of fear of teasing related to “being wrong” about their gender. Authors asserted that the potential risk of having to wait until puberty to transition socially may be less serious than the risk of transitioning prematurely and needing to transition back. However, this concern has yet to be investigated empirically, and the potential risks associated with de-transitioning remain

relatively unexplored at this time. Edwards-Leeper and colleagues (2016) also raise a potential concern about young socially transitioned children feeling “boxed in” to their newly affirmed gender identity if parents inadvertently relay messages that reinforce the gender binary (e.g., “my child *is* this gender and I’m sure she/he will never go back”). For a developing child, these messages (albeit well-intentioned) may be confusing, and based on anecdotal reports, could potentially lead to mental health concerns.

Peripubertal TGNC Youth

Treatment Options

The latest Endocrine Society clinical practice guidelines (Hembree et al., 2017) outline the following criteria for GnRHa treatment: (1) a qualified mental health professional has confirmed that the youth has demonstrated a pervasive and intense pattern of gender nonconformity or GD, GD worsened with the onset of puberty, any co-occurring psychological or social problems that could interfere with treatment have been addressed, and the youth has “sufficient mental capacity” to provide informed consent to this treatment; (2) the adolescent has been informed of the effects and side effects of treatment, including potential loss of fertility (if they subsequently continue with GAH treatment) and options to preserve fertility, has consented for treatment, and for youth who have not reached the age of legal consent, parents or legal guardians are in support and have consented to treatment; and (3) a medical provider experienced in pubertal assessment has agreed with the indication for GnRHa treatment, confirmed that puberty has progressed at least to Tanner stage II, and confirmed that there are no medical contraindications to GnRHa treatment.

First used in the late 1980’s (Cohen-Kettenis & van Goozen, 1998), GnRHa is considered a fully reversible treatment that allows for a temporary halt in the development of secondary sex characteristics. This temporary suspension of pubertal development allows youth the opportunity for an extended period of ongoing gender exploration without the distress associated with unwanted pubertal development. For youth who later continue to GAH treatment, GnRHa facilitates a smooth transition to an affirmed gender, minimizing the need for later invasive interventions. For those who do not wish to pursue further medical intervention, discontinuing GnRHa will reactivate the hypothalamic-pituitary-gonadal axis, leading to re-initiation of endogenous puberty (de Vries & Cohen-Kettenis, 2012).

State of the Science

There has been limited research on the psychosocial outcomes of GnRHa treatment with only one prospective follow-up study of the first 70 adolescents who were deemed appropriate candidates through comprehensive psychological assessment for GnRHa between 2000 and 2008 at the VU University Medical Centre in Amsterdam (de Vries, Steensma, Doreleijers, & Cohen-Kettenis, 2011). Adolescents demonstrated significant reductions in symptoms of depression and improvements in global functioning from baseline (prior to GnRHa treatment) to initiation of GAH (an average of 2 years following GnRHa initiation). During this same time-period, the proportion of youth scoring in the clinical range on internalizing and externalizing subscales of the Child Behavior Checklist also

decreased from 44% to 22%. However, neither GD nor dissatisfaction with primary or secondary sex characteristics remitted.

Ongoing Controversies

Role of endogenous puberty in gender identity consolidation—There has been some debate regarding the role of experiencing one’s endogenous puberty on gender identity consolidation, such that GnRHa treatment for TGNC youth may actually disrupt the development of a cisgender identity during puberty (Vrouenraets, Fredriks, Hannema, Cohen-Kettenis, & de Vries, 2015). However, clinically, we have observed many transgender adults pursuing transition later in life after progressing through puberty, demonstrating that endogenous hormone exposure does not necessarily result in a cisgender identity.

Cognitive development with GnRHa treatment—It is well-documented that adolescence represents a developmental period associated with significant neurocognitive development, with some evidence that sex hormones (estrogen or testosterone) play a direct role in brain development (Blakemore, Burnett, & Dahl, 2010). Thus, it is unclear how, if at all, suppressing endogenous sex hormone production during puberty impacts cognitive development. Similarly, research has not yet tackled the social and developmental implications of youth being “out of sync” with same age peers who progress through puberty while transgender youth are stalled in a prepubescent state.

Bone development during GnRHa treatment—Adolescence represents a critical period of bone mass accrual, which can affect an individual’s risk of developing osteoporosis later in life. Preliminary studies suggest that the normal pubertal increase in bone mineral density is attenuated by GnRHa treatment, and it is unclear whether later GAH treatment results in final bone density accrual that is consistent with pre-GnRHa treatment estimates (Cohen-Kettenis, Schagen, Steensma, de Vries, & Delemarre-van de Waal, 2011; Klink, Caris, Heijboer, van Trotsenburg, & Rotteveel, 2015).

Fertility considerations with GnRHa treatment—Treatment with GnRHa during the early stages of puberty suspends germ cell maturation and limits fertility preservation options (Johnson et al., 2017). Youth who initiate GAH concurrently with GnRHa or prior to discontinuing GnRHa will not have the opportunity to pursue non-experimental oocyte or sperm cryopreservation. While procedures exist to preserve prepubertal ovarian or testicular tissue, these fertility preservation techniques are considered experimental and must be conducted within the confines of an approved IRB protocol (Johnson et al., 2017), thus limiting access to care.

Surgical outcomes with GnRHa treatment—Gender-affirming genital surgeries, particularly penile inversion vaginoplasty in transwomen may be impacted by GnRHa treatment. Specifically, sufficient phallic and scrotal development, corresponding with Tanner stage IV genital development in birth-assigned males, is necessary to create a neovagina (Mahfouda, Moore, Siafarikas, Zepf, & Lin, 2017). Thus, transwomen treated with GnRHa in early puberty may be limited in their options for later genital surgery. While other surgical approaches such as intestinal vaginoplasty using the sigmoid colon exist,

clinically observed risks include post-coital bleeding, potentially compromising sexual functioning in adulthood (Schechter, 2016).

Decisional capacity—There is debate regarding the competence of peripubertal TGNC youth to truly understand the implications of GnRHa treatment (Vrouenraets et al., 2015). The general pediatric psychology literature points to relatively young children possessing capacity to participate meaningfully in the consent process (Weithorn & Campbell, 1982); however, opponents doubt whether youth can actually understand some of the critical components of informed consent, including the fertility implications of treatment (Abel, 2014).

Pubertal TGNC Adolescents

Treatment Options

The Endocrine Society clinical practice guidelines (Hembree et al., 2017) outline the following criteria for GAH treatment: (1) a qualified mental health professional has confirmed the persistence of GD, any co-occurring psychological or social problems that could interfere with treatment have been addressed, and that the adolescent has “sufficient mental capacity” to consider the consequences of GAH, weigh the benefits and risks of treatment, and provide informed consent; (2) the adolescent has been informed of the irreversible effects and side effects of treatment (including potential loss of fertility and options to preserve fertility), has consented for treatment and for youth who have not reached the age of legal consent, parents or legal guardians are in support and have also consented to treatment; and (3) a medical provider experienced in pubertal induction has agreed with the indication for GAH treatment and confirmed that there are no contraindications to GAH treatment.

The criteria for gender-affirming surgeries that affect fertility include: (1) persistent, well-documented GD, (2) legal age of majority in the given country, (3) continuously and responsibly used GAH for 12 months (assuming there is no medical contraindication to GAH), (4) successful continuous full-time living in the affirmed gender role for 12 months, (5) significant medical or mental health concerns (if present) are well controlled, and (6) demonstrable knowledge of all practice aspects of surgery, including cost, required lengths of hospitalizations, likely complications, and post-surgical rehabilitation (Hembree et al., 2017). Both the Endocrine Society guidelines (Hembree et al., 2017) and the WPATH Standards of Care (Coleman et al., 2012) present an age caveat for gender-affirming “top surgeries” that do not affect fertility (e.g., chest masculinization or breast augmentation). Namely, these procedures may be performed in adolescents prior to the age of majority in the context of parental support and consent and without 12 continuous months of living in an affirmed gender role.

State of the Science

To our knowledge, there are no published data documenting psychosocial outcomes in transgender adolescents treated exclusively with GAH. However, a recent systematic review of GAH treatment on the mental health of transgender *adults* suggests that GAH treatment

reduces symptoms of anxiety and dissociation, lowers perceived and social distress, and improves quality of life and self-esteem (Costa & Colizzi, 2016). There is one study documenting young adult outcomes among 55 transgender youth initially treated with pubertal suppression, followed by GAH and later gender-affirming surgery (i.e., vaginoplasty for transwomen, mastectomy and hysterectomy for transmen) (de Vries et al., 2014). Youth were assessed at three time points— before the start of GnRHa, when GAH were introduced, and finally 1-year following gender-affirming surgery. Results show that GD was alleviated and psychological functioning (depression, anxiety, emotional and behavioral problems) steadily improved. Moreover, indicators of overall well-being were similar to or better than same-age young adults from the general population.

Ongoing Controversies

Fertility considerations with GAH treatment—GAH treatment is associated with impairments in gonadal histology that may lead to subfertility or infertility (Ikeda et al., 2013; Schulze, 1988). While established fertility preservation options exist for pubertal youth (i.e., oocyte or sperm cryopreservation), recent studies suggest low fertility preservation utilization among transgender youth (D. Chen, Simons, Johnson, Lockart, & Finlayson, 2017; Nahata, Tishelman, Caltabellotta, & Quinn, 2017). Given that transgender adults desire biological children at similar rates as their cisgender counterparts (De Sutter, Kira, Verschoor, & Hotimsky, 2002; Wierckx et al., 2012), it is possible that transgender youth pursuing GAH may be at risk for later decisional regret. There are also unique and complex considerations in fertility-related decision-making for transgender youth, which are further explored in the accompanying articles in this issue (D. Chen & Simons, In press; Hudson, Nahata, Dietz, & Quinn, 2017).

Genderqueer and non-binary presentations and GAH treatment—Increasing numbers of transgender individuals identify as genderqueer or non-binary (Richards et al., 2016). While there is growing recognition that gender identity may not be binary, GAH used to induce desired secondary sex characteristics are binary in nature. Thus, genderqueer and non-binary adolescents who desire hormonal intervention will likely need GAH regimens tailored to their individual transition goals. It may be particularly important that genderqueer or non-binary adolescents understand the limits and possibilities of GAH, which thus far have not been described in the medical literature. In addition, none of the outcome research to date has included genderqueer or non-binary youth; therefore, we have limited data on the stability of genderqueer and non-binary identities over time, and/or the outcomes with medical intervention.

Late identifying transgender youth—A criterion for inclusion in the research on gender stability and treatment outcomes for transgender youth was identification as TGNC prior to puberty (Steensma et al., 2013). However, anecdotal reports suggest many youth are now presenting to gender clinics in adolescence, with no history of GD in earlier childhood. It is not clear whether this is a different group of youth from those who were identified as TGNC at an earlier age, and whether they will maintain a stable transgender identity over time. Although speculative in the absence of investigation, it is possible that this group of adolescents is heterogeneous, including some teens who only first understand that they are

transgender or feel free to express this identity as adolescents, while others may be influenced by a variety of factors that have not yet been systematically explored through research.

Youth with autism and serious mental health concerns—Clinical guidelines specify that decisions about appropriateness for medical and surgical interventions consider whether any co-occurring psychological or social problems that could interfere with treatment have been addressed (Hembree et al., 2017). However, there are no clear benchmarks on which to base this determination. Transgender youth requesting medical interventions sometimes have serious mental health issues including histories of suicidal ideation, severe social anxiety, self-harming behaviors or trauma (Grossman & D’Augelli, 2006, 2007), or co-occurring autism and other developmental disorders (Strang et al., 2014).

Decisional capacity—Consistent with concerns regarding decisional capacity among peripubertal youth, there also is debate regarding the competence of pubertal TGNC adolescents to consider the implications and weigh the risks and benefits of GAH treatment and gender-affirming surgical interventions, which carry arguably higher risk due to the partially or fully irreversible nature of treatment. Developments in cognitive neuroscience suggest that adolescents are less mature than adults specifically when making decisions under conditions characterized by emotional arousal and peer pressure (Steinberg, 2013). While emotional arousal and peer pressure are typically minimized in the context of medical decision-making, anecdotally, decisions about gender-affirming medical treatments are often made in the context of significant emotional distress associated secondary to GD. Thus, one can argue that youth may be more likely to prioritize short-term benefits (e.g., initiating hormones) over long-term risks (e.g., compromised fertility).

Where Do We Go From Here?

Pediatric psychologists have expertise in child development, family systems, and child psychopathology, as well as experience helping children and families navigate challenging medical decisions as members of multidisciplinary medical teams. Because these skills are important in the context of pediatric gender clinics, pediatric psychologists may be in greater demand as the number of these clinics increase (Cousino et al., 2014). However, the literature with respect to evidence-based care with TGNC youth is lacking, particularly regarding psychological assessment and treatments within the context of team-based care.

In an effort to advance the practice of evidence-based care with TGNC youth, we are pleased to announce an upcoming call for papers for a special issue of *Clinical Practice in Pediatric Psychology* entitled “Advancing the Practice of Pediatric Psychology with Transgender Youth” (see www.apa.org/pubs/journals/cpp/ for more information on the call for papers). We are particularly interested in data-driven quantitative and qualitative articles that inform clinical approaches to care for TGNC youth. Specifically, we are interested in manuscripts that address psychosocial outcomes of social, medical, and/or surgical interventions, as well as empirical studies that may help resolve the ongoing controversies highlighted in this commentary. In the context of growing demand for services within a nascent field in which controversies abound, empirical research is critical to advance clinical practice from being

driven solely by expert opinion to being grounded in an evidence-base. Making this shift will ensure that our patients are not receiving care that is ineffective, at best, or at worst, potentially harmful.

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Implications for Impact Statement

This commentary presents information on three distinct cohorts of transgender and gender-nonconforming (TGNC) youth: prepubescent TGNC children, early pubertal TGNC youth, and late pubertal TGNC adolescents. We describe social, medical, and/or surgical treatments available to each group, outcomes research related to these treatments, and ongoing controversies that are most relevant to pediatric psychologists and the role they play on interdisciplinary treatment teams. This information is critical to guide pediatric psychologists as they more frequently encounter TGNC youth in clinical practice and to help propel forward important clinical research.

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Table 1

Key terminology, definitions, and abbreviations

Terminology	Definition	Abbreviation
Sex assigned at birth/birth-assigned sex	Anatomical sex based on biological attributes of maleness and femaleness (e.g., sex-determining genes, chromosomes, gonads, hormones, internal and external reproductive structures)	–
Gender	Perception of an individual's sex on the part of society based on characteristics designated as masculine and feminine such as gender presentation, mannerisms, speech patterns, and behavioral attributes	–
Gender identity	An individual's personal sense of self as male, female, or an alternate gender	–
Affirmed gender	The gender with which an individual self identifies that is different than their assigned sex at birth	–
Gender expression	The way in which an individual portrays their subjective sense of their gender through dress, speech, mannerisms, and behavior. May not always correlate with gender identity or assigned sex at birth.	–
Transgender	Refers to individuals with an affirmed gender identity that differs from their assigned sex at birth, many of whom seek some degree of medical or surgical intervention to align their bodies with their gender identity	–
Gender-nonconforming	Refers to individuals for whom gender expression does not conform to culturally defined norms	–
Transgender and gender-nonconforming	Umbrella term referring to individuals for whom gender identity and/or gender expression do not conform to conventional norms for their assigned sex at birth	TGNC
Cisgender	Describes individuals for whom gender identity is congruent with their sex assigned at birth	–
Genderqueer	Describes individuals who defy all categories of culturally defined gender and prefer to self-identify as gender-free, gender neutral, or completely outside gender	–
Non-binary	Describes individuals for whom gender identity falls outside of the male-female gender binary	–
Gender Dysphoria	Current diagnosis in the DSM-5. Used as a descriptive term, it refers to affective distress that arises due to discordance between an individuals' gender identity and their assigned sex at birth.	GD
Social transition	A non-medical intervention for gender dysphoria whereby an individual adopts a preferred name, hairstyle, clothing, and/or gender pronouns that are more aligned with their affirmed gender rather than their birth-assigned sex.	–
Gonadotropin releasing hormone analogues	A medical intervention typically prescribed during the early stages of puberty which prevent the development of unwanted physical sex characteristics; reversible in that a typical pattern of pubertal changes will occur if medication is stopped; also known as "puberty blockers".	GnRHa
Gender-affirming hormone	A medical intervention that typically involves exogenous testosterone or estrogen administration to induce desired secondary sex characteristics that are in line with an individual's affirmed gender; some effects are not reversible; previously known as "cross-sex hormones" or "hormone replacement therapy" (HRT).	GAH
World Professional Association of Transgender Health	An international organization that focuses on global issues in transgender health. The organization publishes Standards of Care for the health of transgender and gender-nonconforming people, currently on the 7 th version published in 2012.	WPATH