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Transgender and Gender Nonconforming Adolescent Care: Psychosocial and Medical Considerations

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Abstract

Purpose of review—Transgender individuals display incongruence between their assigned birth sex and their current gender identity, and may identify as male, female or elsewhere on the gender spectrum. Gender nonconformity describes an individual whose gender identity, role, or expression are not typical for individuals in a given assigned sex category. This update highlights recent literature pertaining to the psychosocial and medical care of transgender and gender nonconforming (TGN) adolescents with applications for the general practitioner.

Recent findings—The psychological risks and outcomes of TGN adolescents are being more widely recognized. Moreover, there is increasing evidence that social and medical gender transition reduces gender dysphoria, defined as distress that accompanies the incongruence between one's birth sex and identified gender. Unfortunately, lack of education about TGN adolescents in medical training persists.

Summary—Recent literature highlights increased health risks in TGN adolescents and improved outcomes following gender dysphoria treatment. It is important for clinicians to become familiar with the range of treatment options and referral resources available to TGN adolescents in order to provide optimal and welcoming care to all adolescents.

Keywords

adolescent; gender identity; gender nonconforming; transgender

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Resources

http://www.lgbthealtheducation.org/
http://transhealth.ucsf.edu/
http://www.amsa.org/AMSA/Homepage/About/Committees/GenderandSexuality/TransgenderHealthCare.aspx
http://www.wpath.org/

Introduction

Primary care providers may be the first medical professionals to whom a transgender or gender non-conforming (TGN) adolescent presents. This first impression may set the stage for a given adolescent's views of the medical field in general. Moreover, clinicians who care for adolescents have a responsibility to provide medical care that is non-judgmental and comprehensive (1). Research has increasingly been conducted with regards to the psychosocial needs of TGN adolescents following the establishment of treatment guidelines for transgender individuals by The Endocrine Society (2) and the World Professional Association for Transgender Health (WPATH) (3). Herein, the psychosocial and medical care of TGN adolescents is reviewed in order to provide guidance to general practitioners.

Gender identity

It is important to become familiar with the terminology used in medical and TGN communities (Table 1 (3,4)). Transgender individuals display incongruence between their assigned birth sex and their current gender identity, defined as their internal identification as male, female or elsewhere on the gender spectrum (3). Gender nonconformity describes an individual whose gender identity, role, or expression are not typical for individuals in a given assigned sex category. Gender dysphoria is defined as distress that may accompany the incongruence between one's experienced or expressed gender and one's assigned sex. Gender identity and expression are not the same as sexual orientation (5). When discussing gender identity with patients, providers should inquire if patients have a preferred pronoun.

Gender identity typically develops in early childhood for both gender conforming and non-conforming youth, but can be a dynamic and evolving characteristic from childhood into adolescence and adulthood. For example, a pre-pubertal child who is gender nonconforming or who has apparent gender dysphoria may or may not identify as transgender later in life. The gender identity affirmed during puberty appears to predict the gender identity that will persist into adulthood (6). Estimates for the likelihood of gender dysphoria persisting from childhood into adulthood range from 2–27% depending on the study (6). Youth with persistent TGN identity into adulthood have greater gender dysphoria and are more likely to have experienced social transition, such as using a different name or changing their style of clothing to that which is stereotypically associated with another gender at some point during childhood (6).

Primary care considerations for the TGN adolescent

As a primary care provider, it is important to use verbal and body language that demonstrates acceptance and openness to all patients, but especially to those who are TGN. The practitioner should inquire how the adolescent identifies their gender, and may open the conversation by using open-ended questions such as: "Many people struggle with gender. Is this an issue for you?" (7).

When performing a comprehensive medical and social history with a TGN adolescent there are particular issues that should be specifically addressed:

Home

Gender nonconforming youth may experience conflict with family members who do not understand or accept their gender identification. It is important to assess for parental/family awareness of and support for the adolescent's current gender identification. Parental support is positively associated with condom use among transgender female youth (8) and with higher life satisfaction and fewer depressive symptoms among transgender adolescents (9,10). In situations where the TGN adolescent is not supported by family, the adolescent may be at risk for homelessness (10,11). It is important to ask TGN adolescents if they are concerned about homelessness following disclosure of their gender identity to their family.

School

School is an important social environment for adolescents. A survey of New Zealand high school students found that students who self-identified as transgender were at increased risk of being bullied and in physical fights at school with more than half of them being afraid that someone would hurt or bother them at school (12). Similarly, a nationwide internet survey in the United States (US) found that TGN youth were at higher risk for bullying or harassment compared to their non-TGN peers (13). Adolescents who are gender nonconforming in their expression and behavior at early ages are at increased risk of bullying and verbal and physical abuse by adulthood (14). Moreover, the greater the gender non-conformity, the greater the victimization experienced at school (15).

An ally at school, such as a counselor or teacher, should be identified. Changing clothes for physical education classes or using the bathroom can be stressful or even dangerous for TGN adolescents (5). Bullying in a bathroom may occur as there is no adult supervision, which may result in TGN youth refraining from using the bathroom at school out of fear (5). A patient may not know if there are anti-harassment policies at their school, and this should be investigated.

Substance Use

Although all adolescents should be asked about substance use, TGN youth may be at higher risk for us than non-TGN youth. One online survey found that TGN youth of any gender were more likely than non-TGN boys to have used alcohol, tobacco, marijuana, and other illicit substances in the past twelve months (13). Moreover, TGN youth who are bullied are at higher risk of substance use (13).

Sexual Health

As with all adolescents, it is necessary to ask and counsel on matters related to sexual and reproductive health. As TGN patients may have significant dysphoria related to their genitals, it may be prudent to ask if they have preferred terms for their genitalia (7). Female to male (FTM) patients may have discomfort around pelvic exams or desire continuous oral contraceptives to suppress menses (16).

For those who are engaging in penile-vaginal sex, it is important to discuss contraception. Protection against sexually transmitted infections, including the use of condoms and/or dental dams, should be discussed with patients engaging in any type of sexual behavior. If

the patient is on cross-sex hormones, it is important to remind them that while a side effect may be infertility, such therapies should not be relied upon for contraception (7). For FTM patients who are on testosterone, they should be aware that testosterone is contraindicated in pregnancy and may have adverse effects on a developing fetus. Exogenous testosterone may increase sexual desire and clitoral pain (17). Male to female (MTF) patients on estrogen therapy may experience decreased sexual desire as a side effect of decreased testosterone concentrations (17,18). Decreased libido may also be a side effect of puberty suppressing medications (18).

Mental Health

All adolescents should be evaluated for mental health disorders including depression, anxiety, and suicidality. The TGN adolescent may benefit from referral to mental health providers for a variety of reasons (3). Family counseling and psychotherapy may be necessary to address gender dysphoria, co-morbid mood disorders, and the effect of these conditions on the rest of the family. Assessment by a mental health professional is suggested prior to initiation of puberty blockers or cross-sex hormones to formally diagnose gender dysphoria and to support the TGN adolescent through the transition process (2,3). Additionally, mental health providers can act as liaisons for patients and families with medical and educational systems.

Recent research has focused on the mental health needs and risks of patients with gender dysphoria. Compared to matched non-TGN peers at a single community health center, TGN adolescents and young adults were at two to three times greater risk of depression, anxiety, and suicidal ideation (19). A survey of New Zealand high school students found that one in five students who identified as transgender had attempted suicide in the prior twelve months (12). These findings highlight the importance of assessing mood and suicidal ideation during visits with these patients. Providers should also ask about the timing of gender identity development, as gender nonconformity prior to age eleven is associated with an elevated risk of depressive symptoms (14).

Not surprisingly, following social and medical gender transition, there is reduced gender dysphoria and improved psychological functioning (20). This emphasizes the need to identify TGN adolescents early in order to refer them to appropriate counseling and specialists if they choose to undergo gender-affirmative treatments.

Medical Management

Both The Endocrine Society and WPATH offer recommendations on the medical management of transgender adolescents (2,3). Medication regimens with dosing and administration route are summarized elsewhere (21). Although the medications used are commonly prescribed for other purposes, they are used off-label for treatment of gender dysphoria. Medical professionals have an ethical responsibility to help adolescents appropriately weigh the pros and cons of cross-sex hormonal therapies. (22). Clinicians may not feel comfortable managing such therapies themselves, but should be aware of potential side effects of hormonal interventions and any specific monitoring requirements. Providers

must also be aware of specialists to whom TGN adolescents can be referred for this important medical management.

Early Puberty

If a patient presents with gender dysphoria in early puberty (sexual maturity rating 2), pubertal suppression with a GnRH agonist, such as leuprolide or histrelin, can be considered. This allows for further exploration of gender identity prior to the initiation of cross-sex hormones, which may have irreversible effects. Recommendations for monitoring TGN adolescents on pubertal suppressive medications can be found in Rosenthal's "Approach to the patient: transgender youth: endocrine considerations" (21).

Late puberty

If the adolescent presents with gender dysphoria later in puberty (sexual maturity rating 4/5), GnRH agonists can be used to suppress the hypothalamic-pituitary-gonadal axis to potentially enable the use of lower doses of cross-sex hormones (21). According to the Endocrine Society guidelines, cross-sex hormones can be initiated around age 16 years (2). However, some institutions begin cross-sex hormones at age 14 years with a slow increase of hormones over 2–3 years (21). In addition to GnRH analogues, spironolactone can be used in MTF patients to reduce the effect of testosterone on its receptor.

Cross-sex hormones may be introduced in order to achieve feminizing or virilizing secondary sex characteristics so that a TGN patient's physical appearance will be more aligned with their gender identity. For MTF patients, 17-β-estradiol has numerous delivery routes. Side effects may include impaired insulin sensitivity and hyperprolactinemia (2). There is additional risk of thromboembolic events (18). For FTM patients, testosterone is most commonly given intramuscularly. Side effects include cystic acne, polycythemia, hypertension, adverse changes in lipid profile, possible insulin insensitivity, and risk of impaired fertility (2). Recommendations for monitoring TGN patients who are on cross-sex hormone therapies can be found in Rosenthal's "Approach to the patient: transgender youth: endocrine considerations" (21).

There is some data with regards to outcomes associated with cross-sex hormone treatment. A case report described the first patient treated with pubertal blockers followed by cross-sex hormone treatment in an Amsterdam clinic 22 years after initial treatment (23). This FTM individual received 4.9 years of a GnRH agonist followed by testosterone injections every 2–3 weeks. At age 35, he was found to have bone mineral density above the 50th percentile for females, normal serum values for lipids, hemoglobin A1C, glucose and insulin, and was living happily as a man without regrets regarding his gender transition. A more recent study of the short-term effects of cross-sex hormone therapy in FTM patients found that there were no deaths or severe adverse effects (17). Of 53 FTM patients, two had erythrocytosis and two had transient elevation of liver enzymes. Of the 53 MTF patients, three had transient liver enzyme increase. It is important to emphasize that body image dysphoria remits following cross-sex hormonal therapy and gender affirming surgery, while harassment decreases and patient quality of life and satisfaction with life improves (20).

Surgical intervention

Gender affirming surgery (previously referred to as sex reassignment surgery) is an irreversible intervention and is considered the final phase of medical gender transition (15). The timing of the procedure remains controversial. Patients must have the cognitive ability to understand the risks and benefits of the procedure. They must also have adequate genital tissue for reconstruction (16). WPATH guidelines state that the patient should be of legal age for medical procedure consent and have lived continuously for 12 months in their identified gender (3). The Endocrine Society guidelines advise that surgical procedures should be done when a person is at least 18 years old (2). For FTM patients, one year of testosterone treatment is recommended prior to surgery (3). FTM patients may desire hysterectomy due to dysphoria associated with menses. If this procedure is performed, patients and primary medical providers must be told if the cervix remains, as pap smears for cervical cancer screening would still be indicated. Cross-sex hormone treatment continues after gender affirming surgery for continued feminization or masculinization and maintenance of bone health. Some transgender individuals decide to forgo gender affirming surgery either for personal or financial reasons, but may decide to continue on life-long cross-sex hormone treatment

Barriers to Care

Several barriers to care exist for TGN patients. Lack of medical provider knowledge can make patients feel unwelcome and can hinder appropriate referral for mental health or hormonal interventions. A survey of medical schools in 2009–2010 found that the median number of hours of LGBT content was five hours with one-third of schools reporting no LGBT curriculum during the clinical years (24). Additionally, in a medical school class in Philadelphia, 74% of respondents had 2 hours or less of transgender health topics in medical school (25). However, the Philadelphia students who received an additional lecture on transgender health during their clerkship years had improved knowledge, attitudes and skills compared to students who had not received the lecture. Thus, the addition of even one medical school lecture may improve provider competency in caring for TGN patients.

Insurance coverage represents an additional barrier to care for TGN patients. In the US, cross-hormone or pubertal suppressive therapies are prescribed off-label and may be denied by insurance companies. Gender affirming surgery is infrequently covered by insurance and is a cost-prohibitive treatment for some. However, progress is being made in this arena. At the time of this publication, three US states have Medicaid programs that cover medical services for the treatment of gender dysphoria: California, Vermont, and Massachusetts (26).

In addition to cost, many TGN individuals have difficult or even discriminatory experiences with the medical system. A survey of transgender adolescents and adults from Ontario, Canada found that more than half of respondents reported a negative experience during care in an emergency department, and at least 1 in 5 had avoided the emergency room due to fears that their gender identity may negatively affect their care (27). The National Transgender Discrimination Survey, a national retrospective survey study of TGN adults in the US, found that half of respondents postponed seeking medical care when they were sick due to discrimination or financial concerns (28).

Conclusion

Primary care providers are optimally positioned to welcome TGN adolescent patients to medical care and to create a medical home (28). This is especially important for a patient population that has historically been marginalized. While primary care clinicians may not feel equipped to prescribe hormonal therapies for this population, screening TGN adolescents, creating a safe environment for them in the medical system, and appropriately referring them to mental health and medical care is exceedingly important.

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Key Points

- Primary care providers are optimally positioned to welcome TGN adolescent patients to medical care and to create a medical home.
- TGN youth are at higher risk for bullying or harassment, substance use, and depression than their non-TGN peers.
- There are several published guidelines to help guide medical and surgical transition.
- Following social and medical gender transition, there is reduced gender dysphoria and improved psychological functioning.

Table 1

Terminology related to transgender and gender non-conforming youth(3,4).

Term	Definition
Cross-sex hormones	Use of feminizing hormones in an individual assigned male at birth, or masculinizing hormones in an individual assigned female at birth.
Female-to-Male (FTM)	Individuals assigned female at birth who identify on the masculine spectrum and may undergo gender affirming medical treatments to masculinize their body
Gender dysphoria	An individual's affective/cognitive discontent with the assigned sex. Refers to the distress that may accompany the incongruence between one's experienced or expressed gender and one's assigned sex.
Gender identity	An individual's internal identification as male, female or elsewhere on the gender spectrum
Gender non-conforming/gender atypical	An individual whose gender identity, role, or expressionis not typical of individuals with the same assigned sex in a given society and historical era
Genderqueer	A term which may be used by individuals whose gender identity and/or role does not conform to a binary understanding of gender as limited to the categories of male or female
Gender role	Personality, appearance, and behavior traits that society designates as masculine or feminine
Male-to-Female (MTF)	Individuals assigned male at birth who identify on the feminine spectrum and may undergo gender affirming medical treatments to feminize their body
Sex	Biological indicators of male and female, such as sex chromosomes, gonads, sex hormones, and internal/external genitalia.
Gender affirmation surgery (Sex reassignment surgery)	Surgery to change primary and/or secondary sex characteristics to affirm a person's gender identity.
Transgender	Adjective to describe a diverse group of individuals who cross defined categories of gender
Transsexual	Term to describe individuals who seek to change or have changed their primary and/or secondary sex characteristics through medical interventions (hormones and/or surgery) with a permanent change in gender role
Transition	Period of time when individuals change from the gender role associated with their sex assigned at birth to a different gender role. The nature and duration of transition are variable and individualized.