

# Gender Identity Disorder: An Emerging Problem for Pediatricians

**AUTHOR:** Walter J. Meyer III, MD

*Department of Psychiatry and Behavior Sciences, University of Texas Medical Branch, Galveston, Texas*

## ABBREVIATIONS

GID—gender identity disorder

PTSD—posttraumatic stress disorder

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Address correspondence to Walter J. Meyer III, MD, Department of Psychiatry and Behavior Sciences, University of Texas Medical Branch, 301 University Blvd, Galveston, TX 77555-0193. E-mail: [wmeyer@utmb.edu](mailto:wmeyer@utmb.edu)

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A new pediatric problem is in town. In this issue of *Pediatrics* there are 2 articles<sup>1,2</sup> concerning gender identity disorder (GID). There has been an explosion of public interest in recent years and concern about children who show an interest in changing their gender. This, of course, brings more inquiries to the pediatrician about what to do.

Cross-gender behavior in children has been known for many years. Even in the Child Behavior Check List<sup>3</sup> developed by Achenbach in the 1970s there are 2 gender questions for parents to complete. Mothers reported that 2% to 4% of boys and 5% to 10% of girls of a nonclinical sample between the ages of 4 and 18 behaved as the opposite gender from time to time. Less frequently, these mothers reported that their children wished to be the opposite gender. Using the Youth Self Report,<sup>4</sup> 5% to 13% of teenage boys and 20% to 26% of teenage girls of a non-clinical sample reported cross-gender behavior. Two percent to 5% of boys and 15% to 16% of girls reported sometimes desiring to be the opposite gender. In spite of this relatively high rate of cross-gender behavior, very few patients have presented for evaluation and treatment even in countries such as the Netherlands where there is a well-established formal program for treatment.<sup>5</sup> The prevalence there is of the order of 0.01% (1 in 10 000–30 000). Therefore, a lot of children seem to be experimenting with cross-gender behavior, but very few are following through to request gender change as they mature.

However, combining this relatively high prevalence of cross-gender behavior with widespread information in the public domain concerning the availability of a new early treatment using puberty blocking hormones has produced a rapid increase in the number of referrals, as noted in the paper by Spack et al.<sup>1</sup> His experience is not unique; I have also seen a similar increase in Texas. The more parents hear about childhood GID, the more they question if their child may need to change gender. Many of the presentations in the public media concerning childhood GID give the impression that a child with cross-gender behavior needs to change to the new gender or at least should be evaluated for such a change. Very little information in the public domain talks about the normality of gender questioning and gender role exploration and the rarity of an actual change. The burden of that education is going to fall on the pediatrician.

The Endocrine Society and the World Professional Association for Transgender Health have published similar guidelines for the evaluation and treatment of gender-variant children.<sup>6,7</sup> These guidelines make it clear that prepubertal children should usually not change gender before puberty because most of them will take another life path, often to homosexuality. Children should have time to explore the various genders and gender roles before making a decision for a permanent change. This ambiguity is very hard on the parents and sometimes leads

to a referral to attempt to settle the matter quickly. The use of puberty hormone blocking agents outlined by Spack et al<sup>1</sup> provides an extension of the decision time. By turning off puberty, the adolescent can have more time to mature and explore the possibilities, even attend school in the new gender, without irreversibly changing his/her body. I agree with Spack et al<sup>1</sup> that the stage of puberty, not the age of the child, should be the determining factor of when to begin medications to block puberty. Spack et al<sup>1</sup> used a GnRH blocker to accomplish cessation of puberty. Because of the excessive cost (noted in his paper) and the too frequent insurance denials creating a significant hardship on the family, a less expensive treatment, medroxyprogesterone acetate, is being used by other centers. This treatment dates from the 1960s and 1970s, when it was used to stop puberty in children with precocious puberty. Its cost is much less (ie, ninety 10 mg tablets for \$10 in Texas). The high oral dose of 40 to 60 per day raises the concern of side effects; the patient must be monitored for weight gain, diabetes, hypertension, gall bladder problems, and theoretically even adrenal suppression.<sup>8,9</sup> The treatment does not seem to affect the normal progression of bone age.

The paper of Roberts et al<sup>2</sup> raises the question of the association of GID with significant psychological and

psychiatric problems such as abuse, posttraumatic stress disorder (PTSD), and depression. The relationship between abuse and GID is very complicated since gender-variant behavior can certainly bring on abuse, which leads to PTSD. However, I have seen several patients who reported that the abuse (sexual abuse) occurred before the patient expressed an interest in changing gender. Because, in either situation, the patients had not been evaluated before the abuse, it is hard to know which came first. The article by Roberts et al<sup>2</sup> assumes that the gender nonconformity predates the abuse but states clearly they cannot prove it is a causal effect of abuse. As indicated by Roberts et al,<sup>2</sup> gender nonconformity should be monitored for all types of abuse (physical, psychological, and sexual) as well as poor self-esteem, depression, suicidality, anxiety symptoms, and body dissatisfaction. Certainly, PTSD is an important sequela to abuse of any type and should be treated. GID is also associated with autism spectrum disorder with a prevalence of 7.8% in 1 large group of children with GID.<sup>10</sup> Because these children also have poor social skills and often exhibit inappropriate behavior in public, they are also a target for abuse irrespective of their gender nonconformity.

The pediatrician or family medicine doctor should be on the lookout for the child who is gender nonconforming. Sometimes during the physical exam

the issue is revealed. The male child with gender nonconforming behavior will sometimes indicate that he wants his testes and penis removed or that he wants breasts. Likewise, the female child may be complaining of breasts and menstrual periods. The pediatrician who observes gender nonconformity should address the issue straightforwardly and look for a number of associated psychosocial problems including abuse, PTSD, difficulty in school, depression, or increased anxiety. Referral to and working with the mental health professional provides a good safety net for the child as he/she struggles with exploration of gender orientation, gender, and gender role as well as the related conditions. If indicated, adolescent patients might be referred to a pediatric endocrinologist for help in getting a better long-term physical outcome.

Yes, a new pediatric problem is in town. The 2 articles in this issue of *Pediatrics* bring to the pediatrician a new awareness of a significant childhood condition, gender-variant behavior. The presence of this behavior should alert the pediatrician to other significant problems of childhood such as abuse and PTSD. The new public awareness of this condition will bring to the pediatrician inquiries for help in dealing with the child in the home and school settings as well as questions about new hormonal treatment approaches as the child becomes an adolescent.

## REFERENCES

1. Spack NP, Edwards-Leeper L, Feldman HA, et al. Children and adolescents with gender identity disorder referred to a pediatric medical center. *Pediatrics*. 2012;129(3):418–425
2. Roberts AL, Rosario M, Corliss HL, Koenen KC, Austin SB. Childhood gender nonconformity: a risk indicator for childhood abuse and posttraumatic stress in youth. *Pediatrics*. 2012;129(3):410–417
3. Achenbach TM. *Manual for Behavioral Behavior Check List/4-18 and 1991 Profile*. Burlington, VT: University of Vermont Department for Psychiatry; 1991
4. Achenbach TM, Edelbrock C. *Manual for the Youth Self-Report and Profile*. Burlington, VT: University of Vermont Department for Psychiatry; 1987
5. Cohen-Kettenis PT. Gender identity disorder. In: Gillberg C, Harrington R, Steinhausen HC, eds. *A Clinician's Handbook of Child and Adolescent Psychiatry*. Cambridge, UK: Cambridge University Press; 2006:695–725
6. Hembree WC, Cohen-Kettenis P, Delemarre-van de Waal HA, et al; Endocrine Society. Endocrine treatment of transsexual persons: an Endocrine Society clinical practice guideline. *J Clin Endocrinol Metab*. 2009;94(9):3132–3154
7. The World Professional Association for Transgender Health. Standards of care for the

- health of transsexual, transgender, and gender nonconforming people, 7th version. Available at: [www.wpath.org/documents/Standards%20of%20Care%20V7%20-%202011%20WPATH.pdf](http://www.wpath.org/documents/Standards%20of%20Care%20V7%20-%202011%20WPATH.pdf). Accessed January 25, 2012
8. Richman RA, Underwood LE, French FS, Van Wyk JJ. Adverse effects of large doses of medroxyprogesterone (MPA) in idiopathic isosexual precocity. *J Pediatr*. 1971; 79(6):963–971
  9. Rogol A, Blizzard R. Variations and disorders of pubertal development. In: Kappy MWS, Blizzard RM, Migeon CJ, eds. *The Diagnosis and Treatment of Endocrine Disorders in Childhood and Adolescence*. 4th ed. Springfield, IL: Charles C. Thomas; 1994
  10. de Vries ALC, Noens ILJ, Cohen-Kettenis PT, van Berckelaer-Onnes IA, Doreleijers TA. Autism spectrum disorders in gender dysphoric children and adolescents. *J Autism Dev Disord*. 2010;40(8):930–936

**ORGANIC:** *The supermarket where I buy most of my groceries has rows and rows of organic produce. In the summer I assume, perhaps incorrectly, that food labeled organic indicates locally grown as well as organic but I am pretty sure that nobody is growing organic tomatoes in Vermont in the middle of the winter. Where and how the organic produce found in my supermarket is grown in January is not listed anywhere. According to an article in The New York Times (Science: December 30, 2011), organic produce such as tomatoes, peppers, and basil found in U.S. supermarkets during the winter months likely were grown on large farms in Mexico. While many consumers tend to think of organic produce as locally produced on small farms that use sustainable practices, the product labeling does not require such practices. While the 1990 law that created the standards used to define organic was intended to protect soil and water health, the standards themselves do not list the farming practices farmers must use to promote environmental sustainability. Instead, the standard lists the things farmers cannot use such as synthetic pesticides. Many large organic farms plant single crops which tend to be environmentally damaging. Furthermore, large organic farms may be intensive water users. In some areas of Mexico, intensive irrigation by large organic farms has led to depletion of underground water supplies. Wells used by subsistence farmers have gone dry. The original vision of organic is now in conflict with organic as a big business. One problem is that U.S. customers are price sensitive and want particular produce all seasons of the year. Growing food using organic practices and shipping it to the U.S. from South America, despite the enormous carbon footprint, is still less expensive than growing the produce in the U.S. This has led for some to call for revisions of the organic standard, something that many growers staunchly oppose. The bottom line for consumers is that if you want locally grown organic food produced using sustainable practices, you may have to forgo some food products during the winter season. And, as always, read the fine print on the product labeling.*

*Noted by WVR, MD*

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