Challenges in Timing Puberty Suppression for Gender-Nonconforming Adolescents

Annelou L.C. de Vries, MD, PhD

Sorbara et al,[1] in their report "Mental Health and Timing of Gender-Affirming Care" in this issue of *Pediatrics*, focus on the interesting matter of age of clinical presentation for gender-affirming medical interventions and its association with mental health in transgender youth. Because experiencing puberty is often stressful for gender-nonconforming youth, puberty suppression as a reversible medical intervention was introduced in clinical care in the early 2000s by Dutch clinicians Cohen-Kettenis et al.[2] The aim of puberty suppression was to prevent the psychological suffering stemming from undesired physical changes when puberty starts and allowing the adolescent time to make plans regarding further transition or not. Following this rationale, younger age at the time of starting medical-affirming treatment (puberty suppression or hormones) would be expected to correlate with fewer psychological difficulties related to physical changes than older individuals. Sorbara et al[1] confirmed this in their study. Adolescents presenting at younger age (<15 years) reported lower rates of self-reported diagnosed depression, self-harm, suicide thoughts or attempts, and use of psychoactive medication.

One could claim from these findings that gender-affirming medical interventions including puberty suppression should be offered at an early age (age <15 in the Sorbara study). Some caution is warranted, however, as the authors acknowledge in their report. One reason is that, despite the increased availability of gender-affirming medical interventions for younger ages in recent years, there has not been a proportional decline in older presenting youth with gender incongruence (GI), which is the discrepancy between one's birth-assigned sex and experienced gender identity.[3] It is even the case that most transgender people still present as older adolescents, as in the study by Sorbara et al[1], or as adults.[4] Interestingly, this older adolescent group did not only have more mental health difficulties but also a later age of onset of GI. As seen by using medical records, the older presenting youth "simply experienced gender history events at older ages" before attending the clinic.[1]

According to the original Dutch protocol, one of the criteria to start puberty suppression was "a presence of gender dysphoria from early childhood on."[2] Prospective follow-up studies evaluating these Dutch transgender adolescents showed improved psychological functioning.[5] However, authors of case histories and a parent-report study warrant that gender identity development is diverse, and a new developmental pathway is proposed involving youth with postpuberty adolescent-onset transgender histories.[6–8] These youth did not yet participate in the early evaluation studies.[5,9] This raises the question whether the positive

Department of Child and Adolescent Psychiatry, Amsterdam University Medical Centers, Location VUMC, Amsterdam, Netherlands

Opinions expressed in these commentaries are those of the author and not necessarily those of the American Academy of Pediatrics or its Committees.

DOI: https://doi.org/10.1542/peds.2020-010611

Accepted for publication Jul 14, 2020

Address correspondence to Annelou L.C. de Vries, MD, PhD, Department of Child and Adolescent Psychiatry, Amsterdam University Medical Centers, Location VUmc, Room 1y130, PO Box 7057, 1007 MB, Amsterdam, Netherlands. E-mail alc.devries@amsterdamumc.nl

PEDIATRICS (ISSN Numbers: Print, 0031-4005; Online, 1098-4275).

Copyright © 2020 by the American Academy of Pediatrics

FINANCIAL DISCLOSURE: The author has indicated she has no financial relationships relevant to this article to disclose.

FUNDING: No external funding.

POTENTIAL CONFLICT OF INTEREST: The author has indicated she has no potential conflicts of interest to disclose.

COMPANION PAPER: A companion to this article can be found online at www.pediatrics.org/cgi/doi/10.1542/2019-3600.

To cite: de Vries ALC. Challenges in Timing Puberty Suppression for Gender-Nonconforming Adolescents. *Pediatrics*. 2020;146(4):e2020010611

Downloaded from www.aappublications.org/news by guest on December 16, 2020

outcomes of early medical interventions also apply to adolescents who more recently present in overwhelming large numbers for transgender care, including those that come at an older age, possibly without a childhood history of GI. It also asks for caution because some case histories illustrate the complexities that may be associated with later-presenting transgender adolescents and describe that some eventually detransition.[9,10]

A study at the Amsterdam transgender clinic, one of the oldest in the world, whose researchers aimed to gain insight in the possible changes of certain key characteristics of earlier compared with recent applicants, revealed no changes in intensity of gender dysphoria, psychological functioning, and age over time between 2000 and 2016.[11] The only yet-unexplained observed change was a shift in sex ratio in favor of assigned female individuals. However, researchers of this time-trend study did not focus on differences between younger and older referred youth nor on the age of onset of gender nonconformity. In future, more-detailed studies like the one by Sorbara et al[1] and the time-trend study by Arnoldussen et al,[11] researchers should investigate whether older transgender adolescents might include individuals who experience later onset of GI, possibly postpuberty, and with more mental health challenges.

So far, researchers of the limited follow-up studies after puberty suppression show that the rate of adolescents that stop the reversible blockers is low (1.4%, 1.9%, and 3.5%).[4,12,13] However, systematic studies on the rate of adolescents who discontinue their transitions after they have started affirming hormones or surgeries with lasting effects are lacking at present. Given these uncertainties, providing early medical treatment to transgender adolescents remains a challenging area to work in. Prospective longer-term follow-up studies of clinical samples like the study of Sorbara et al[1] are needed to inform clinicians so that an individualized approach can be offered that differentiates who will benefit from medical gender affirmation and for whom (additional) mental health support might be more appropriate.

ABBREVIATION

GI: gender incongruence

REFERENCES

1. Sorbara JC, Chiniara LN, Thompson S, Palmert MR. Mental health and timing of gender-affirming care. *Pediatrics*. 2020;146(4):e20193600
2. Cohen-Kettenis PT, Delemarre-van de Waal HA, Gooren LJ. The treatment of adolescent transsexuals: changing insights. *J Sex Med*. 2008;5(8):1892–1897
3. World Health Organization. ICD-11 for mortality and morbidity statistics (ICD-11 MMS) 2018 version. 2019. Available at: https://icd.who.int/browse11/l-m/en. Accessed July 10, 2020
4. Wiepjes CM, Nota NM, de Blok CJM, et al. The Amsterdam cohort of gender dysphoria study (1972-2015): trends in prevalence, treatment, and regrets. *J Sex Med*. 2018;15(4):582–590
5. de Vries AL, McGuire JK, Steensma TD, Wagenaar EC, Doreleijers TA, Cohen-Kettenis PT. Young adult psychological outcome after puberty suppression and gender reassignment. *Pediatrics*. 2014;134(4):696–704
6. Kaltiala-Heino R, Bergman H, Työläjärvi M, Frisén L. Gender dysphoria in adolescence: current perspectives. *Adolesc Health Med Ther*. 2018;9:31–41
7. Littman L. Correction: parent reports of adolescents and young adults perceived to show signs of a rapid onset of gender dysphoria. *PLoS One*. 2019;14(3):e0214157
8. Zucker KJ. Adolescents with gender dysphoria: reflections on some contemporary clinical and research issues. *Arch Sex Behav*. 2019;48(7):1983–1992
9. Sevlever M, Meyer-Bahlburg HFL. Late-onset transgender identity development of adolescents in psychotherapy for mood and anxiety problems: approach to assessment and treatment. *Arch Sex Behav*. 2019;48(7):1993–2001
10. Turban JL, Carswell J, Keuroghlian AS. Understanding pediatric patients who discontinue gender-affirming hormonal interventions. *JAMA Pediatr*. 2018;172(10):903–904
11. Arnoldussen M, Steensma TD, Popma A, van der Miesen AIR, Twisk JWR, de Vries ALC. Re-evaluation of the Dutch approach: are recently referred transgender youth different compared to earlier referrals? *Eur Child Adolesc Psychiatry*. 2020;29(6):803–811
12. Brik T, Vrouenraets LJJJ, de Vries MC, Hannema SE. Trajectories of adolescents treated with gonadotropin-releasing hormone analogues for gender dysphoria [published online ahead of print March 9, 2020]. *Arch Sex Behav*. doi:10.1007/s10508-020-01660-8
13. Kuper LE, Stewart S, Preston S, Lau M, Lopez X. Body dissatisfaction and mental health outcomes of youth on gender-affirming hormone therapy. *Pediatrics*. 2020;145(4):e20193006

Downloaded from www.aappublications.org/news by guest on December 16, 2020

Challenges in Timing Puberty Suppression for Gender-Nonconforming Adolescents

Annelou L.C. de Vries

Pediatrics originally published online September 21, 2020;

Updated Information & Services	including high resolution figures, can be found at: http://pediatrics.aappublications.org/content/early/2020/09/17/peds.2020-010611
References	This article cites 11 articles, 3 of which you can access for free at: http://pediatrics.aappublications.org/content/early/2020/09/17/peds.2020-010611#BIBL
Permissions & Licensing	Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at: http://www.aappublications.org/site/misc/Permissions.xhtml
Reprints	Information about ordering reprints can be found online: http://www.aappublications.org/site/misc/reprints.xhtml

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN®

Downloaded from www.aappublications.org/news by guest on December 16, 2020

PEDIATRICS®
OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

Challenges in Timing Puberty Suppression for Gender-Nonconforming Adolescents

Annelou L.C. de Vries

Pediatrics originally published online September 21, 2020;

The online version of this article, along with updated information and services, is located on the World Wide Web at:
http://pediatrics.aappublications.org/content/early/2020/09/17/peds.2020-010611

Pediatrics is the official journal of the American Academy of Pediatrics. A monthly publication, it has been published continuously since 1948. Pediatrics is owned, published, and trademarked by the American Academy of Pediatrics, 345 Park Avenue, Itasca, Illinois, 60143. Copyright © 2020 by the American Academy of Pediatrics. All rights reserved. Print ISSN: 1073-0397.

American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN®

Downloaded from www.aappublications.org/news by guest on December 16, 2020