

***Factual Information  
for Adults Dealing With  
Transgender Identity in Minors***©

**Based on the research report:**

***Transgender Research: Five Things Every Parent and Policy-Maker  
Should Know***

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## **PURPOSE**

**This presentation is intended to help adults respond to gender-confusion in minors (youth under 18 years old) based on factual information and not common misconceptions.**

## **DISCLAIMER**

**This is not intended to take the place of professional diagnosis or treatment by licensed medical or mental health personnel with respect to gender dysphoria or any medical or mental health condition.**

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**Executive Summary: slides 7-12, 36, 38-40**

## **Part A.**

# **Terminology & Recent Trends Related to Transgender Identity**

# Terminology

**Minor:** A young person under the age of 18 years.

**Sex Assigned at Birth:** A term used by the transgender movement to assert that biological sex is not evident at birth but rather is a subjective judgment that may turn out to be incorrect.

**Gender Identity:** A term used by the transgender movement to indicate a person's self-conception as a man or woman, boy or girl, masculine or feminine, or as someone fluctuating between or outside those categories altogether. It is purported to be independent of biological/natal sex.

**Gender Dysphoria:** A diagnostic term referring to profound distress with one's biological/natal sex.

**Gender Confusion:** A feeling of not identifying with one's biological/natal sex. It may not include a diagnosis of gender dysphoria or identification as transgender.

**Transgender:** Refers to a person whose declared gender identity does not match their biological/natal sex; a biological male who identifies as female, or the reverse.

**Desistance:** Turning from gender confusion to identification with one's biological sex.

## Terminology (continued)

**Cisgender:** A term used by the transgender movement for someone whose gender identity matches their biological sex. It is sometimes used with a negative undertone.

**Non-Binary:** A term used to indicate that someone does not identify as male or female.

**Gender Transition or Affirmation:** Steps taken to align a person's appearance and style with a self-perceived "gender identity" that differs from their biological/natal sex.

**Social Transition:** Steps taken socially to implement a change in gender identity. It usually includes a change of name and pronouns and wearing opposite-sex clothing.

**Cross-sex hormones/surgery:** Hormones or surgeries that change the human body to appear more like the opposite of its biological/natal sex.

**Gender Affirming Care:** A term used by advocates of medical gender transition procedures to refer to administering puberty blockers (hormones that stop puberty), cross-sex hormones, and/or cross-sex surgery. The term may include social transition.

**De-transitioner:** Someone who formerly identified as transgender and then returned to identification with their biological/natal sex, ceasing medical transition treatments.

# Recent Trends

## **1. In recent years, the pattern of transgender identity in the general population has changed dramatically:**

- **Prior to around 2013, the rate was quite low: about .01%, or one transgender individual out of 10,000 people.<sup>2</sup>**
- **Since 2013, the numbers have skyrocketed, largely because of an explosion of gender dysphoria in teen girls (a 4000% increase in Great Britain and a 1500% increase in Sweden in 10 years).<sup>3</sup>**
- **In the U.S., the percent of Gen Z adults who are transgender has increased 800% over 20 years.<sup>4</sup> And currently, about 1.4% of U.S. adolescents (roughly 300,000 teens) say they are transgender.<sup>5</sup>**

- **Prior to 2013, the typical transgender person was a biological male who exhibited gender dysphoria in early childhood. The ratio was about 2 biological males for every one biological female (or 2:1 males vs. females).<sup>6</sup>**
- **In the past 10 years, the sex ratio has reversed: there are now far more transgender biological females than males (between 2:1 and 7:1 biological females vs. males), most with onset after age 12.<sup>6</sup>**



## **2. The following misconceptions are now promoted as facts. They are not supported by science, and include...**

- **Sexual identity is not a binary biological fact; it is subjective and occurs on a spectrum.<sup>7</sup>**
- **A person can be “born in the wrong body;” sexual identity is “assigned” at birth.**
- **A person’s sex can be changed by means of social and/or medical gender transition: a man/male can become a woman/female (or the reverse).**
- **Gender transition procedures for minor children are “life-saving,” that is, necessary to prevent suicide.<sup>8</sup>**
- **Medical transition for minors is safe and supported by all medical professionals.<sup>9</sup>**
- **If you don’t affirm a young person’s “trans” identity, it means you don’t respect them.**
- **The norm of binary biologically-based sexual identity is a form of oppression. To be “cisgender” is to be aligned with that oppression.**
- **To disagree with these ideas is to be “transphobic” or “anti-trans.”**

### **3. As the rate of gender confusion in minors has grown, so has...**

- **the number of medical transition procedures—puberty blockers, cross-sex hormones, and cross-sex surgeries—performed on youth under 18.<sup>10</sup>**
- **professional disagreement on the impact of medical transition for minors.<sup>10</sup>**
- **uncertainty in parents and policymakers as to what is the best course of action.**

## **4. Young people with gender confusion have higher rates of emotional/mental distress and suicidality than the general adolescent population.<sup>11</sup>**

- **The parents and families of such young people also experience distress and confusion.**
- **Parents often struggle to know how best to help a gender-confused child.**

## **These Trends Result in the Need for:**

- **Compassion towards those affected by gender confusion, and**
- **Sound information about how to respond.**

## **Part B.**

# **Research Findings about Minors and Gender Transition**

**1. Is gender confusion in children a *permanent condition*, that requires medical treatment?**

**Research shows childhood gender dysphoria often resolves on its own by young adulthood.<sup>12</sup>**

**In about 7 out of 10 cases, children with gender dysphoria eventually identify with their biological sex if “transition” is not encouraged.<sup>12,13</sup>**

- **If *medical transition* procedures are administered to 10 children who have gender dysphoria, roughly 7 of them would eventually have accepted their biological sex without transitioning.**
- **There is no way to know ahead of time who those 7 children will be.**



- ***Social transition* has not been proven to improve mental health or reduce suicidality in children with gender dysphoria. Instead, it seems to funnel the child toward a transgender identity, interfering with the natural resolution (desistance) of most childhood gender dysphoria. Social transition “is not a neutral intervention.”<sup>14,15</sup>**
- **The British National Health Service (NHS) warns about “the risks of an inappropriate [social] transition” and instead recommends “a watchful approach overall” for children with gender confusion.<sup>15</sup>**

- **Recent studies have shown that 20% to 30% of transgender patients (including youth and adults) choose to discontinue medical treatment within a few years.<sup>16</sup>**
- **This suggests that a sizable number of those who begin medical transition procedures will change their mind.**

**2. What does research show about the benefits and harms of medical gender transition procedures for minors?**

**Scientific evidence does NOT support  
medical intervention for  
gender-confused minors.<sup>17</sup>**

- **The research claiming that medical transition treatments – puberty blockers, cross-sex hormones, surgeries – are beneficial is not scientifically reliable. In fact, there is evidence of harmful impact.**
- **Therefore, a growing number of international healthcare agencies do not recommend such treatments for minors.**

## **Recent research reviews by 4 European agencies do NOT recommend medical transition for minors:**

- **England's National Health Service, 2022<sup>15</sup>**
- **Sweden's National Board of Health & Welfare, 2022, 2023<sup>18</sup>**
- **Finland's Board for Selection of Choices for Health Care, 2022<sup>19</sup>**
- **Norway's Board of Healthcare Investigation, 2023<sup>20</sup>**

**All concluded that medical gender transition should not be the standard of care for gender-confused minors, because of the lack of credible evidence about the effects. The benefits are unproven and the risks are too great. Instead, they recommend psychological evaluation and support.**

## **Sweden National Board of Health & Welfare (NBHW), 2022; Swedish Systematic Review, 2023<sup>18</sup>**

- **“For adolescents...[Sweden’s] NBHW deems that the risks of puberty suppressing treatment...and gender-affirming hormonal treatment currently outweigh the possible benefits...based on...continued lack of reliable scientific evidence concerning the efficacy and the safety of both treatments.”**
- **“Long-term effects of hormone therapy on psychosocial health are unknown. [Puberty suppressing] treatment in children with gender dysphoria should be considered experimental...rather than standard procedure.”**

**In addition, two separate investigations  
by the British Medical Journal,  
one of the world's foremost scientific publications, found:**

- **A lack of reliable scientific evidence for the endorsements of medical gender transition for minors made by the American Academy of Pediatrics, the Endocrine Society, and WPATH (World Professional Association for Transgender Health ).<sup>21</sup>**
- **“Puberty blockers are being used in the context of profound scientific ignorance...treatments for under 18 gender dysphoric children and adolescents remain largely experimental...The current evidence base does not support ... safe practice in children.”<sup>21</sup>**

## **Another published review:**

### **“Deficiencies in Scientific Evidence for Medical Management of Gender Dysphoria”<sup>22</sup>**

**found that the limitations of the published studies in transgender medicine are many. They include...**

- A lack of randomized control groups [thus, cannot test cause and effect]**
- Small sample sizes**
- Non-representative study populations**
- Short follow-up times**
- High participant drop-out rates**
- A reliance on “expert opinion” rather than evidence**



## **The same review also found:**

**“The only [studies] that reached the level of ‘moderate’ quality were related to adverse medical outcomes...”<sup>22</sup>**

# **Risk of Adverse/Harmful Outcomes from Medical Transition Procedures for Minors (puberty blockers and cross-sex hormones)<sup>23</sup>**

## **Risks include:**

- **Low bone density**
- **Shortened adult height**
- **Infertility**
- **Increased risk of heart attack and stroke**
- **Altered cognitive development**
- **Inability to experience sexual response**

## **In addition to the risks of physical harm, puberty blockers appear to be a “gateway drug”**

- **Multiple studies show that virtually all children placed on puberty blockers (95%) move on to take irreversible cross-sex hormones.<sup>24</sup>**
- **If not given puberty blockers, the large majority will eventually embrace their biological sex.**
- **Thus, rather than being a “pause button,” puberty blockers appear to funnel kids into an irreversible path of cross-sex hormones and transgender identity.**

**3. Has medical gender transition for minors been shown to prevent suicide?**

**Research does NOT show that  
medical transition procedures for minors  
reduce transgender suicide.<sup>25</sup>**

- The “transition or suicide” claim—that parents must choose between a “live trans son or a dead daughter” (or the reverse)—is not supported by credible scientific evidence.<sup>25</sup>
- Widely cited studies claiming cross-sex hormones reduce suicidality in gender-confused youth have significant flaws and cannot be relied on.<sup>25</sup>
- Sound studies show no reduction or, in some cases, an increase in suicidality after medical transition procedures.<sup>25</sup>

## Critiquing a Questionable Study

**Turban, 2022,<sup>26</sup> has been purported to show that cross-sex hormones in adolescence reduce transgender suicidality**

- The study's weaknesses include: no control group, a non-representative sample, no controls for pre-existing mental health problems, and combining the effects of two very different hormone treatments (estrogen and testosterone).
- The study reported that giving cross-sex hormones to transgender youth was related to reduced suicidal *thoughts*. However, the findings show actual suicide attempts were not reduced. But this was not reported in the study summary.
- The study showed those who received hormones at 16-17 years old appeared twice as likely to attempt suicide ( $p < .01$ ). But, by using a debatable statistical technique,<sup>27</sup> the study avoided reporting it as a significant increase in suicidality.
- Using the same data, a different researcher analyzed biological males and females separately, finding increased suicide attempts by young males given hormones.<sup>28</sup>

**4. Can minors be influenced towards transgender identity, or is it all biologically determined?**

***The sudden rise in gender dysphoria, especially for teen girls, is likely being influenced by social factors.***<sup>29</sup>

- Genetic studies show gender identity development is a complex process with biological, psychological, and social components.<sup>30</sup>
- Recent dramatic changes in the pattern of gender dysphoria across modern developed countries supports the idea of nonbiological social influences.<sup>29</sup>



**Teaching gender ideology  
in school classrooms  
is an untested form of social influence.**

- Teaching these topics in schools has not been shown by reliable research to be beneficial, nor has it been tested for harmful effects.<sup>31</sup>
- Given this lack of evidence, teaching gender ideology in school classrooms can be viewed as an experiment on children, who are susceptible to influence.
- The burden of proof should be on those proposing such content to show evidence that it is not harmful to children.

**5. Is a minor youth capable of making mature decisions about undergoing gender transition?**

***The adolescent brain is not biologically equipped to make mature decisions about life-altering gender transition procedures.***

**It is well-established by medical science that the frontal lobes of the human brain, where impulse control and evaluation of consequences occur, are not fully developed until the mid-20s.<sup>32</sup>**

## **Summary of Research about Gender Transition in Minors**

- 1. Studies show approximately 7 out of 10 cases of childhood gender dysphoria will resolve on their own, in favor of biological sex, by young adulthood if gender transition is not encouraged.**
- 2. There is not reliable evidence that medical transition procedures are beneficial for gender-confused minors. Rather, reliable research shows significant risks.**
- 3. Sound research does not show that gender transition prevents youth suicide. Studies claiming this are not reliable. However, there is some evidence that medical transition may increase suicide risk in gender-confused teens.**
- 4. Gender dysphoria is not solely determined by biology. The recent dramatic rise of transgender identity in teen girls is likely being influenced by social factors, such as social media and the teaching of gender ideology to youth.**
- 5. The brain's frontal lobes, controlling rational judgment, are not mature until the mid-20s. Minors are not mentally equipped to decide about gender transition.**

## **Part C.**

# **Responding to Gender-Confused Minors**

# **Minor youth with gender confusion experience genuine distress**

**In addition to discomfort with their bodies, up to 70% also have a significant mental health challenge,<sup>11</sup> such as:**

- **Depression (may include suicidal thoughts)**
- **Anxiety**
- **Attention Deficit Hyperactivity Disorder (ADHD)**
- **Autism**
- **An Eating Disorder**
- **Sexual Abuse**
- **Childhood Trauma**

**And many feel very lonely<sup>33</sup>**

# **Suggestions for Parents and Other Adults**

## **Responding to a Gender-Confused Minor Child<sup>34</sup>**

**(based on the research findings in this presentation)**

- **Listen and acknowledge the child's distress; provide empathetic nonjudgmental support without affirming a transgender identity. (See comments in Endnote 35.)**
- **Affirm the child's biological sex in positive ways.**
- **Teach the child there is a good chance he/she will outgrow this distress.<sup>12,13</sup>**
- **Promote healthy ways for the child to cope with stress (e.g., exercise, sports, meditation, fun activities, hobbies, etc.).**
- **Teach the child that puberty blockers and hormones are not a magic solution and can have serious long-term health consequences.<sup>15-23</sup>**
- **Resist the misconception that teens must "transition" to avoid suicide.<sup>25</sup>**
- **Be aware that research supports avoiding "gender affirmation" steps, including name and pronoun changes and cross-sex dressing. (See Endnote 35.)**

## **Suggestions Especially for Parents<sup>34</sup>**

- **Be calm; try to stay attuned and connected to your child; be involved in her/his school and activities; show lots of love.**
- **Encourage your child to wait until adulthood to decide on gender transition.<sup>32</sup>**
- **Review her/his technology use; strive to screen out inappropriate social media, friends, or friend groups; encourage healthy friend relationships.**
- **Find out what is going on at school, in the curriculum, with teachers, and school counselors, that might be affecting your child's gender confusion.**
- **Seek evaluation and treatment for any mental health problems your minor child appears to have, such as anxiety, depression, or suicidality. Look for medical or mental health professionals who will prioritize mental health issues rather than a “gender affirming” approach. (See comments in Endnote 36).**
- **Laws governing medical gender transition for minors vary by state and country; consult legal counsel to understand your parental rights and restrictions.**



**For more information  
see the research report:**

***Transgender Research:  
Five Things Every Parent and Policy-maker Should Know***<sup>©</sup>

Available from:

***The Institute for Research & Evaluation***

[www.institute-research.com](http://www.institute-research.com)

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## THE INSTITUTE FOR RESEARCH & EVALUATION

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### **Nonprofit scientific agency studying risk behavior prevention for 30 years:**

- Research on sex education effectiveness: more than 100 evaluation studies and 900,000 teens
- U.S. federally funded studies in 30 states, three international countries
- Divorce prevention/marriage enrichment; character education in elementary schools
- Papers published in peer-reviewed journals, e.g., *Issues in Law and Medicine*, *The American Journal of Preventive Medicine*, *The American Journal of Health Behavior*

### **Expert testimony/consultation sought by:**

- U.S. state legislative bodies (e.g., Texas State Senate & House, 2023; New Jersey State Senate, 2022)
- U.S. Senate, U.S. House of Representatives, the White House
- U.S. Department of Health & Human Services
- CDC-sponsored meta-analysis on sex education effectiveness
- American College of Pediatricians

### **Recent presentations:**

- National Academies of Sciences (2019)
- U.N. Civil Society Conference (2019)
- U.S. Department of Health & Human Services (2020)



***The Medical Institute for Sexual Health, a nonprofit health organization, was founded over 30 years ago by a group of physicians concerned about the need for accurate information on the prevention of STIs and pregnancy and the benefits of sexual risk avoidance.***

- **The Medical Institute works with a coalition of physicians, sexual risk avoidance educators, researchers, curriculum writers, pregnancy resource center directors, licensed counselors, and community leaders to produce resources that can be relied upon by educators and the public.**
- **The Institute website offers reports and brochures that translate the latest science into practical knowledge about many of the sexual health issues young people face today.**
- **The Institute has published a guide for sexuality education curriculum development, “K-12 Standards for Optimal Sexual Development,” that can be downloaded for free at [www.medinstitute.org](http://www.medinstitute.org).**

## References and Notes

1. The Institute for Research & Evaluation. (2022). *Transgender Research: Five Things every Parent and Policy-maker Should Know*. Available at: [www.institute-research.com](http://www.institute-research.com)
2. American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). p. 454. doi:10.1176/appi.books.9780890425596
3. The Economist Group Limited. (2020). An English ruling on transgender teens could have global repercussions. *The Economist, International*, December 12, 2020. Available at: <https://www.economist.com/international/2020/12/12/an-english-ruling-on-transgender-teens-could-have-global-repercussions>; Turner, J. (2022). Special Report: What went wrong at the Tavistock clinic for transgender teens? *The Times Magazine*. June 17, 2022. Available at: <https://segm.org/GIDS-puberty-blockers-minors-the-times-special-report>
4. Jones, JM. (2021). LGBT Identification Rises to 5.6% in Latest U.S. Estimate. *Gallup Poll Social Series*. February 24, 2021. Available at: <https://news.gallup.com/poll/329708/lgbt-identification-rises-latest-estimate.aspx>
5. Johns, M. M., Lowry, R., Andrzejewski, J., Barrios, L. C., Demissie, Z., McManus, T., Rasberry, C. N., Robin, L., & Underwood, J. M. (2019). Transgender identity and experiences of violence victimization, substance use, suicide risk, and sexual risk behaviors among high school students – 19 states and large urban school districts, 2017. *MMWR. Morbidity and Mortality Weekly Report*, 68(3), 67–71. doi:10.15585/mmwr.mm6803a3; Williams Institute. (2022). How Many Adults and Youth Identify as Transgender in the United States? *UCLA School of Law*, June, 2022. Available at: <https://williamsinstitute.law.ucla.edu/publications/trans-adults-united-states/>
6. Zucker KJ. (2019). Adolescents with Gender Dysphoria: Reflections on Some Contemporary Clinical and Research Issues. *Archives of Sexual Behavior* 48:1983–1992.

## References and Notes (cont'd)

7. The Endocrine Society refutes this notion, stating, “Sex is a biological concept” and “Biological sex is dichotomous.” (p.221). See: Bhargava A., et al. (2021). Considering Sex as a Biological Variable in Basic and Clinical Studies: An Endocrine Society Scientific Statement. *Endocrine Reviews*, Vol. 42, No. 3, 219–258.
8. This assertion is addressed by the research summarized in section 2 of: *Transgender Research: Five Things every Parent and Policy-maker Should Know*, The Institute for Research & Evaluation. (2022). Available at: [www.institute-research.com](http://www.institute-research.com).
9. This assertion is addressed by the research summarized in section 1 of: *Transgender Research: Five Things every Parent and Policy-maker Should Know*, The Institute for Research & Evaluation. (2022). Available at: [www.institute-research.com](http://www.institute-research.com).
10. Block J. 2023. Gender dysphoria in young people is rising—and so is professional disagreement. *BMJ Investigation*, 2023;380:p382, <http://dx.doi.org/10.1136/bmj>
11. Becerra-Culqui TA, Liu Y, Nash R, et al. (2018). Mental Health of Transgender and Gender Nonconforming Youth Compared With Their Peers. *Pediatrics*, 141(5):e20173845; Figueredo VM, Diaz A. (2020). *Psychiatric Co-Morbidities, Sexual Orientation, and Impact of Therapeutic Interventions in a Gender Non-Conforming Pediatric Practice*. *JESOCI*, Volume 4, Abstract Supplement, 2020, doi: 10.1210/jendso/bvaa046. These studies found as many as 70% of gender-confused youth also had a diagnosable mental health condition.
12. This conclusion is supported by the research evidence summarized in section 3 of: *Transgender Research: Five Things every Parent and Policy-maker Should Know*, The Institute for Research & Evaluation. (2022) Available at: [www.institute-research.com](http://www.institute-research.com).
13. Ristori J and Steensma TD. (2016). Gender dysphoria in childhood. *International Review of Psychiatry* 28:13-20. DOI: <https://doi.org/10.3109/09540261.2015.1115754>
14. Morandini JS, de Graaf N, Malouf P, et al. (2023). Is Social Gender Transition Associated with Mental Health Status in Children and Adolescents with Gender Dysphoria? *Archives of Sexual Behavior*, 52:1045–1060; Sievert EDC, Schweizer K, Barkmann C, Fahrenkrug S, Becker-Hebly I (2020). Not social transition status, but peer relations and family functioning predict psychological functioning in a German clinical sample of children with Gender Dysphoria. *Clin Child Psychol Psychiatry* 26(1): 79–95;

## References and Notes (cont'd)

- <https://pubmed.ncbi.nlm.nih.gov/33081539/>; Steensma, T.D., McGuire, J.K., Kreukels, B.P., Beekman, A.J., & Cohen-Kettenis, P.T. (2013). Factors associated with desistence and persistence of childhood gender dysphoria: a quantitative follow-up study. *Journal of the American Academy of Child and Adolescent Psychiatry*, 52, 582–590; Olson KR, Durwood L, Horton R, Gallagher NM, Devor A. Gender identity 5 years after social transition. *Pediatrics*. 2022; doi: 10.1542/peds.2021-056082
15. National Health Service, England. (2022). Interim service specification: Specialist service for children and young people with gender dysphoria (phase 1 providers) 20 October 2022. Available at: [https://www.engage.england.nhs.uk/specialised-commissioning/gender-dysphoria-services/user\\_uploads/b1937-ii-specialist-service-for-children-and-young-people-with-gender-dysphoria-1.pdf](https://www.engage.england.nhs.uk/specialised-commissioning/gender-dysphoria-services/user_uploads/b1937-ii-specialist-service-for-children-and-young-people-with-gender-dysphoria-1.pdf); The Cass Review. (2022). Independent review of gender identity services for children and young people: Interim report. February 2022. Available at: <https://cass.independent-review.uk/publications/interim-report/>, pp.62-63.
16. Boyd I, Hackett T, Bewley S. Care of Transgender Patients: A General Practice Quality Improvement Approach. *Healthcare (Basel)* 2022;10:. doi: 10.3390/healthcare10010121. pmid: 35052285; Roberts CM, Klein DA, Adirim TA, Schvey NA, Hisle-Gorman E. Continuation of Gender-affirming Hormones Among Transgender Adolescents and Adults. *J Clin Endocrinol Metab* 2022;107:-43. doi: 10.1210/clinem/dgac251. pmid: 35452119
17. This conclusion is supported by the research evidence summarized in section 1 of: *Transgender Research: Five Things every Parent and Policy-maker Should Know*, The Institute for Research & Evaluation. (2022). Available at: [www.institute-research.com](http://www.institute-research.com)
18. Swedish National Board of Health & Welfare. (2022). *Care of Children and Adolescents with Gender Dysphoria: Summary*; Ludvigsson JF. (2023). A systematic review of hormone treatment for children with gender dysphoria and recommendations for research. doi:10.1111/apa.16791
19. Finland Board for Selection of Choices for Health Care (PALKO / COHERE Finland). (2020). Medical Treatment Methods for Dysphoria Related to Gender Variance In Minors. Official English Translation, May 18, 2022.
20. Norway Board of Healthcare Investigation (UKOM), 2023. Patient safety for children and young people with gender incongruence

## References and Notes (cont'd)

(Online English Translation). Published March 9, 2023. Available at: <https://ukom.no/rapporter/pasientsikkerhet-for-barn-og-unge-med-kjonnsinkongruens/sammendrag>

21. Heneghan, C. & Jefferson, T. (2019). Gender-affirming hormone in children and adolescents. *British Medical Journal (BMJ) Evidence Review*. Available at: <https://blogs.bmj.com/bmjebmspotlight/2019/02/25/gender-affirming-hormone-in-children-and-adolescents-evidence-review/>; Block J. 2023. Gender dysphoria in young people is rising—and so is professional disagreement. *BMJ Investigation*, 2023;380:p382, <http://dx.doi.org/10.1136/bmj>
22. Hruz, P.W. (2020). Deficiencies in Scientific Evidence for Medical Management of Gender Dysphoria. *The Linacre Quarterly*, 87(1) 34-42. DOI: 10.1177/0024363919873762
23. Alzahrani, T., Nguyen, T., Ryan, A., Dwairy, A., McCaffrey, J., Yunus, R., Forgione, J., Krepp, J., Nagy, C., Mazhari, R., & Reiner, J. (2019). Cardiovascular disease risk factors and myocardial infarction in the transgender population. *Circulation Cardiovascular Quality and Outcomes*, 12(4). doi:10.1161/CIRCOUTCOMES.119.005597; de Vries, A. L., T. D. Steensma, T. A. Doreleijers, and P. T. Cohen-Kettenis. 2011. “Puberty Suppression in Adolescents with Gender Identity Disorder: A Prospective Follow-Up Study.” *Journal of Sexual Medicine* 8:2276–83. doi: 10.1111/j.1743-6109.2010.01943.x; de Vries AL, McGuire JK, Steensma TD, Wagenaar EC, Doreleijers TA, CohenKettenis PT. (2014). Young adult psychological outcome after puberty suppression and gender reassignment. *Pediatrics*;134(4):696–704; Getahun, D., Nash, R., Flanders, W. D., Baird, T. C., Becerra-Culqui, T. A., Cromwell, L., Hunkeler, E., Lash, T. L., Millman, A., Quinn, V. P., Robinson, B., Roblin, D., Silverberg, M. J., Safer, J., Slovis, J., Tangpricha, V., & Goodman, M. (2018). Cross-sex Hormones and Acute Cardiovascular Events in Transgender Persons. *Annals of Internal Medicine*, 169(4), 205–213; Hough, D., M. Bellingham, I. R. H. Haraldsen, M. McLaughlin, M. Rennie, J. E. Robinson, A. K. Solbakk, and N. P. Evans. 2017. “Spatial Memory Is Impaired by Peripubertal GnRH Agonist Treatment and Testosterone Replacement in Sheep.” *Psychoneuroendocrinology*. doi:10.1016/j.psyneuen.2016.10.016; Hruz, P.W. (2020). Deficiencies in Scientific Evidence for Medical Management of Gender 75:173–82Dysphoria. *The Linacre Quarterly*, 87(1) 34-42. DOI:10.1177/0024363919873762;

## References and Notes (cont'd)

- Nota, N. M., Wiepjes, C. M., de Blok, C. J. M., Gooren, L. J. G., Kreukels, B. P. C., & den Heijer, M. (2019). Occurrence of Acute Cardiovascular Events in Transgender Individuals Receiving Hormone Therapy: Results From a Large Cohort Study. *Circulation*, 139(11), 1461–1462. <https://doi.org/10.1161/CIRCULATIONAHA.118.038584>; Stoffers IE, de Vries MC, Hannema SE. Physical Changes, Laboratory Parameters, and Bone Mineral Density During Testosterone Treatment in Adolescents with Gender Dysphoria. *J Sex Med* 2019; 16:1459-1468. Turner, J. (2022). Special Report: What went wrong at the Tavistock clinic for transgender teens? *The Times Magazine*. June 17, 2022. Available at: <https://segm.org/GIDS-puberty-blockers-minors-the-times-special-report>; 'Gender affirming' surgeon admits children who undergo transition before puberty NEVER attain sexual satisfaction, American News, May 1, 2022, at: <https://thepostmillennial.com/gender-affirming-surgeon-admits-children-who-undergo-transition-before-puberty-never-attain-sexual-satisfaction>
24. de Vries, A. L., T. D. Steensma, T. A. Doreleijers, and P. T. Cohen-Kettenis. (2011). “Puberty Suppression in Adolescents with Gender Identity Disorder: A Prospective Follow-Up Study.” *Journal of Sexual Medicine* 8:2276–83. doi: 10.1111/j.1743-6109.2010.01943.x; Kuper LE, Stewart S, Preston S, Lau M, Lopez X. (2020). Body dissatisfaction and mental health outcomes of youth on gender-affirming hormone therapy. *Pediatrics*;145(4):e20193006; van der Loos M, Klink D, Hannema S, Bruinsma, S, Steensma TD, et al. (2023). Children and adolescents in the Amsterdam Cohort of Gender Dysphoria: trends in diagnostic-and treatment trajectories during the first 20 years of the Dutch Protocol. *The Journal of Sexual Medicine*; <https://doi.org/10.1093/jsxmed/qdac029>
25. This conclusion is supported by the research evidence summarized in section 2 of: *Transgender Research: Five Things every Parent and Policy-maker Should Know*, The Institute for Research & Evaluation (2022). Available at: [www.institute-research.com](http://www.institute-research.com).
26. Turban JL, King D, Kobe J, Reisner SL, Keuroghlian, (2022) “Access to Gender-Affirming Hormones During Adolescence and Mental Health Outcomes Among Transgender Adults,” *PLOS ONE*, Vol. 17, No. 1 (January 12, 2022), p. e0261039, <https://doi.org/10.1371/journal.pone.0261039>
27. Nakagawa S. A farewell to Bonferroni: the problems of low statistical power and publication bias. *Behavioral Ecology*. 2004; 5(6):1044–5.



## References and Notes (cont'd)

28. Biggs M. (2022a). “Comment on Turban et al. 2022: Estrogen Is Associated with Greater Suicidality Among Transgender [Fe]Males, and Puberty Suppression Is Not Associated with Better Mental Health Outcomes for Either Sex,” figshare, journal contribution, 2022, <https://doi.org/10.6084/m9.figshare.19018868.v1>
29. This conclusion is supported by the research evidence summarized in section 4 of: *Transgender Research: Five Things every Parent and Policy-maker Should Know*, The Institute for Research & Evaluation. (2022). Available at: [www.institute-research.com](http://www.institute-research.com).
30. Heylens, G., G. De Cuypere, K. J. Zucker, C. Schelfaut, E. Elaut, H. Vanden Bossche, E. De Baere, et al. (2012). Gender Identity Disorder in Twins: A Review of the Case Report Literature. *Journal of Sexual Medicine* 9:751–57.
31. Ericksen, IH and Weed, SE. (2023). “Three Decades of Research:” A New Sex Ed Agenda and the Veneer of Science. *Issues in Law and Medicine*, 38(1):27-46.
32. Benes FM. (1989). Myelination of cortical-hippocampal relays during late adolescence. *Schizophrenia Bulletin*, 15, 585–93; Benes FM. (1998). Brain development, VII. Human brain growth spans decades. *American Journal of Psychiatry*, 155, 1489; Frontline (Producer). (2002). *Inside the Teenage Brain: Interview with Dr. Deborah Yurgelun-Todd*. [Transcript from a television series episode]. Retrieved from <http://www.pbs.org/wgbh/pages/frontline/shows/teenbrain/interviews/todd.html>; Giedd J, Blumenthal J, Jeffries N, Castellanos FX, Hong L, Zijdenbos A, et al. (1999). Brain development during childhood and adolescence: A longitudinal MRI study. *Nature Neuroscience*, 2, 861–863; Romanczyk TB, Weickert CS, Webster MJ, Herman MM, Kleinman JE. (2002). Alterations in the human prefrontal cortex across the life span. *European Journal of Neuroscience*, 15, 269–280; Thompson RA, Nelson CA. (2001). Developmental science and the media: Early brain development. *American Psychologist*, 56, 5–15; Yurgelun-Todd D. (2002). *Frontline* interview Inside the Teenage Brain. Full interview available at <http://www.pbs.org/wgbh/pages/frontline/shows/teenbrain/interviews/todd.html>; Spinks S. (2002). One reason teens respond differently to the world: Immature brain circuitry [Transcript from a television series episode]. In Frontline (Producer), *Inside the teenage brain*. Retrieved from <http://www.pbs.org/wgbh/pages/frontline/shows/teenbrain/work/onereason.html>, p. 2.

## References and Notes (cont'd)

33. Hajek A, König H, Blessmann M, Grupp K. (2023). Loneliness and Social Isolation among Transgender and Gender Diverse People. *Healthcare*, 11, 1517. <https://doi.org/10.3390/healthcare11101517>

34. This information is not intended to take the place of professional diagnosis or treatment by licensed medical or mental health personnel for anyone with respect to gender dysphoria or any medical or mental health condition.

35. Some people assert that not affirming a minor child's declared transgender identity is emotionally damaging, disrespectful, and undermines the child's autonomy; that to avoid these harms a minor's transgender self-identification must be affirmed. At first glance, this may appear to be the loving and respectful thing to do. Yet science indicates that there are important reasons not to affirm a child's cross-sex gender identification: 1) A major task of childhood and adolescence is identity formation—a young person's sense of sexual and gender identity may naturally fluctuate during this period of psycho-social development. Research shows that most gender-confused children embrace their biological sex by adulthood if their confusion is not "affirmed." Gender affirmation appears to interfere with this natural process of desistance, funneling many youth, unnecessarily, into an irreversible path of medical transition, with its unproven benefits and many risks of serious long-term health concerns. 2) Credible research does not show that gender affirmation/transition improves adolescent mental health or reduces suicide. 3) The still-developing adolescent brain is not equipped to make life-altering decisions about gender identity. (See: Endnote 32; Levine SB & Abbruzzese E. (2023). Current Concerns About Gender-Affirming Therapy in Adolescents. *Current Sexual Health Reports*, 15:113–123. <https://doi.org/10.1007/s11930-023-00358-x>; Transgender Research: Five Things every Parent and Policy-maker Should Know, *The Institute for Research & Evaluation*. (2022) Available at: [www.institute-research.com](http://www.institute-research.com).)

36. It is important to diagnose co-occurring mental health problems in gender-confused children and treat them appropriately. While gender affirmation/transition (whether social transition or cross-sex medical treatment) has not been shown to improve mental health or resolve psychiatric issues, treating underlying psychopathology may help to reduce the distress of a gender-confused child. That being said, it may not be easy to find a mental health or medical professional who is willing to prioritize the assessment/treatment of mental health issues rather than gender affirmation, and to consider gender distress within a mental health context. Parents should interview a medical or mental health professional about his or her position on this before placing their child in the care of that professional. 8/30/23