



NATIONAL LGBT HEALTH  
EDUCATION CENTER

A PROGRAM OF THE FENWAY INSTITUTE



# Gender Diversity and Affirmation for Children and Adolescents

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# Our Roots

## Fenway Health

- Independent 501(c)(3) FQHC
- Founded 1971
- Mission: To enhance the wellbeing of the LGBTQIA+ community as well as people in our neighborhoods and beyond through access to the highest quality health care, education, research, and advocacy
- Integrated primary care model, including HIV and transgender health services

## The Fenway Institute

- Research, Education, Policy



# LGBTQIA+ Education and Training

The National LGBT Health Education Center offers educational programs, resources, and consultation to health care organizations with the goal of providing affirmative, high quality, cost-effective health care for lesbian, gay, bisexual, transgender, queer and intersex (LGBTQIA+) people.

- Training and Technical Assistance
- Grand Rounds
- Online Learning
  - Webinars, Learning Modules
  - CE, and HEI Credit
- ECHO Programs
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[www.lgbthealtheducation.org](http://www.lgbthealtheducation.org)



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- Completing the evaluation is required in order to obtain a CME/CEU certificate

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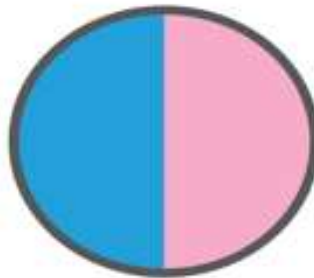
# INTRODUCTION

- Who we are
- What we are talking about
  - Background
  - Methods of Support
  - Medical Treatment





# GENDER DEFINITIONS



## GENDER

The state of being male or female in typically regarding to social constructs rather than physical attributes.



## TRANSGENDER

Refers to someone who does not identify with the gender they were assigned at birth.



## CISGENDER

Refers to someone who identifies with the gender they were assigned at birth.



## NON-BINARY

Refers to someone who does not identify as exclusively male or female.



## GENDER FLUID

Refers to someone whose gender identity changes over time from one end of the spectrum to the other.



## GENDERQUEER

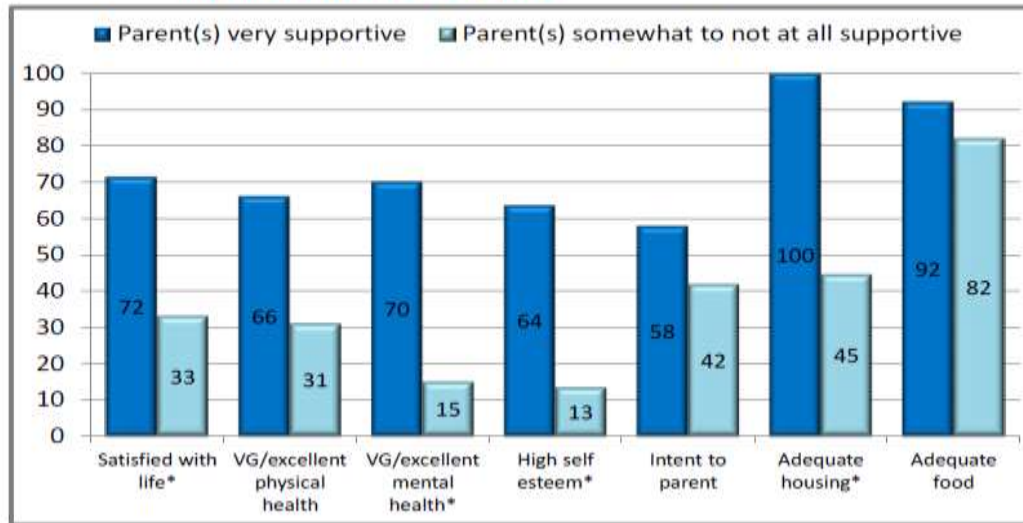
Refers to someone whose gender identity falls on the spectrum between male and female.



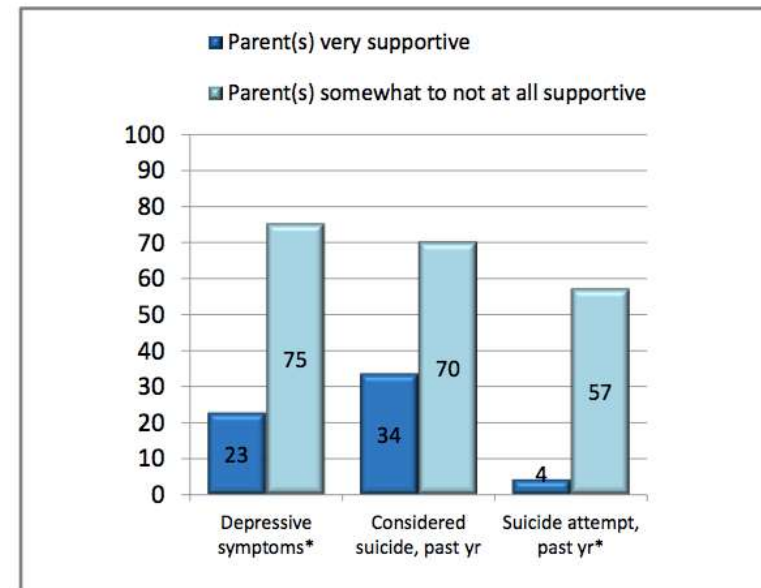
# METHODS OF SUPPORT

# The Importance of Support

**Figure 1. Proportion of trans youth age 16-24 years in Ontario experiencing positive health and life conditions, by level of parental support**



\* = statistically significant difference ( $p < 0.05$ )



\* = statistically significant difference ( $p < 0.05$ )

Travers R. Trans PULSE, 2012. Transpulseproject.ca

# A Welcoming Environment



Which pronouns would you like me to use today?

How would you like to be addressed today?

What pronouns should we use when talking to your parents about you?

If you make a mistake, just acknowledge it quickly and apologize.

# Gender Pronouns

Please note that these are not the only pronouns. There are an infinite number of pronouns as new ones emerge in our language. Always ask someone for their pronouns.

Subjective	Objective	Possessive	Reflexive	Example
She	Her	Hers	Herself	She is speaking. I listened to her. The backpack is hers.
He	Him	His	Himself	He is speaking. I listened to him. The backpack is his.
They	Them	Theirs	Themselves	They are speaking. I listened to them. The backpack is theirs.
Ze	Hir/Zir	Hirs/Zirs	Hirself/ Zirself	Ze is speaking. I listened to hir. The backpack is zirs.

[transstudent.tumblr.com](https://transstudent.tumblr.com)  
[facebook.com/transstudent](https://facebook.com/transstudent)  
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Design by Landyn Pan

For more information,  
go to [transstudent.org/graphics](https://transstudent.org/graphics)

**TSER**  
Trans Student Educational Resources



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# Types of Transition

- Social: coming out, changing dress/style and/or mannerisms/voice
- Legal: Gender marker, birth certificate, legal name, name at school
- Medical
- Surgical



[gc2b.com](http://gc2b.com)



# Pre-Pubertal Children

## May Present With:

- Preferred clothing, toys, dress that differ from gendered societal expectations
- Exhibit normative behaviors of gender not traditionally associated with sex assigned at birth
- Statements:
  - “I am not a boy”
  - “When will I grow a penis?”
- Preference for friends of gender not traditionally associated with sex assigned at birth
- Embraces variety of typically gendered activities, dress

## Methods of Support

- No gender-specific medical intervention at this time
- Stress normal fluidity of expression & identification
- Maintain safe environment
- Normalize behaviors and feelings – no shaming
- Enlist school support
- Consult gender team for support and education
- Play groups – if available



# Early Pubertal Youth/Adolescents

## May Present With:

- Fear of developing masculine or feminine body
- Discomfort with pressure of typical, binary gender expression
- Confusion/conflation: gender identity and sexual orientation
- Isolation, depression, anxiety
- Restrictive eating to preserve or alter body
- Increased awareness, acknowledgment of gender discomfort: “I knew I had a secret but didn’t know what it was”

## Methods of Support

- Medical interventions
  - Blockers, menstrual suppression
- Explore gender dysphoria vs. anatomical dysmorphia
- Stress individual differences, fluidity, continuums
- Collaborate/connect with school and other supports
- Normalize behaviors and feelings





# Pubertal Youth/Adolescents

## May Present With:

- More nuanced understanding of gender identification
- Increased online research and social media connections
- Romantic relationship concerns
- Increased clarity re: sexual orientation and gender identity
- Increase or decrease in mental health issues
- More clarity in gender expression: clothing, packing, tucking, binding
- More request for medical intervention

## Methods of Support

- Development of treatment plan
- Initiation of hormone therapy
- Pursuance of surgery
- Exploration of sexuality
- Safer sex education & reproductive issues
- Development supportive networks in high school, college, & community



# Gender Affirmative Care

- Open, culturally sensitive approach to working with transgender and gender-diverse people
- Gender identity and expression are natural variation
- Does not pathologize → this is not a disorder or *wrong*
- To the best of our current knowledge, gender is influenced by biology, socialization, childhood/adolescent development, and cultural context
- Understands that gender is not a ‘binary’
- Mental health concerns are likely caused and/or influenced by social stigma and negative cultural reactions
  - Transphobia, homophobia, and sexism (not an extensive list)



# The Science Behind Gender Diversity

# Over-represented groups

## Adopted Children

- Prevalence of adoption in the U.S. is 2.4%
- Prevalence of adoption in MA 2.3%
- Prevalence of adopted patients as percentage of the GeMS population: 8.9%

Shumer DE, Abrha A, Feldman HA, Carswell J. Overrepresentation of Adopted Adolescents at a Hospital-Based Gender Dysphoria Clinic. *Transgend Health*. 2017;2(1):76–79. Published 2017 May 1. doi:10.1089/trgh.2016.0042

## Type 1 DM

- U.S. Prevalence T1DM: 1.93/1000
- BCH: 9.87/1000, 5 times higher (unpublished)
- Belgium: 2.3 times higher incidence
- U.S.: 9.4 times higher incidence

Defreyne J, De Bacquer D, Shadid S, Lapauw B, T'Sjoen G (2017) Is Type 1 Diabetes Mellitus More Prevalent Than Expected in Transgender Persons? A Local Observation. *Sex Med* 5:e215–e218  
SEARCH for Diabetes in Youth Study Group\* TWG for the (2007) Incidence of Diabetes in Youth in the United States. *JAMA* 297:2716–2724

# Autism and Gender Dysphoria



- The GeMS clinic and clinics across the U.S. and the world are seeing an increase in co-occurrence of ASD and gender dysphoria.
- Prevalence is measured at 1 in 68 children with ASD
  - Thought to be an underestimate
  - Up to 27% of gender referrals have significant ASD traits.
- Profile (20 youth with GD and ASD, age 12-20)
  - Higher IQs – avg 114.7 FSIQ
  - Late diagnoses of autism 44%
  - Providers really struggle to diagnose them 84%

Strang, J., Powers, F., Knauss, M., Sibarium, D., Leibowitz, M., Kenworthy, E., . . . Anthony, V. (2018). "They Thought It Was an Obsession": Trajectories and Perspectives of Autistic Transgender and Gender-Diverse Adolescents. *Journal of Autism and Developmental Disorders*, 48(12), 4039-4055.



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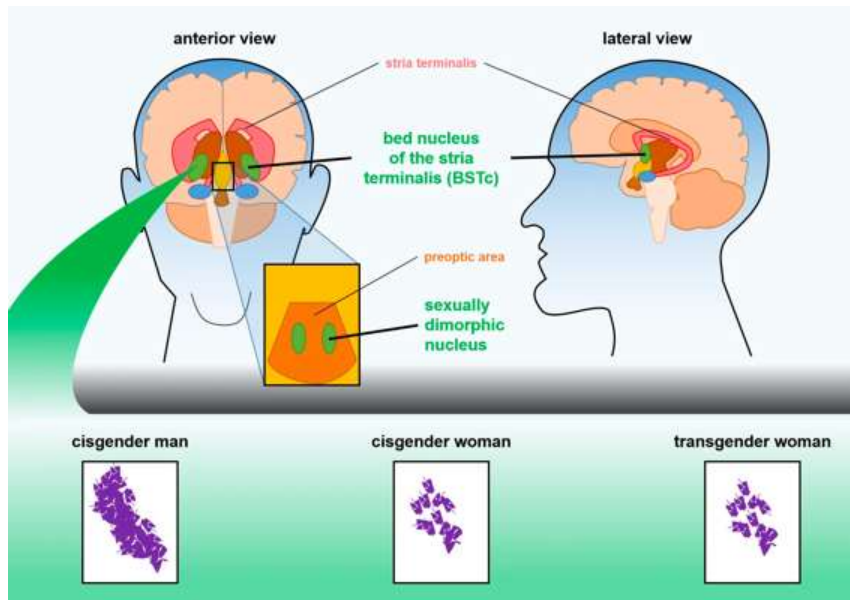
# Twin Studies

- Several studies have shown that identical twins are more likely to both be transgender
  - At a higher rate than fraternal twins
- This suggests a strong genetic component in gender identity development
- The GeMS clinic has several families with multiple siblings who identify as transgender



Diamond, M. (2013). Transsexuality Among Twins: Identity Concordance, Transition, Rearing, and Orientation. *International Journal of Transgenderism*, 14(1), 24-38.

# Brain Structure



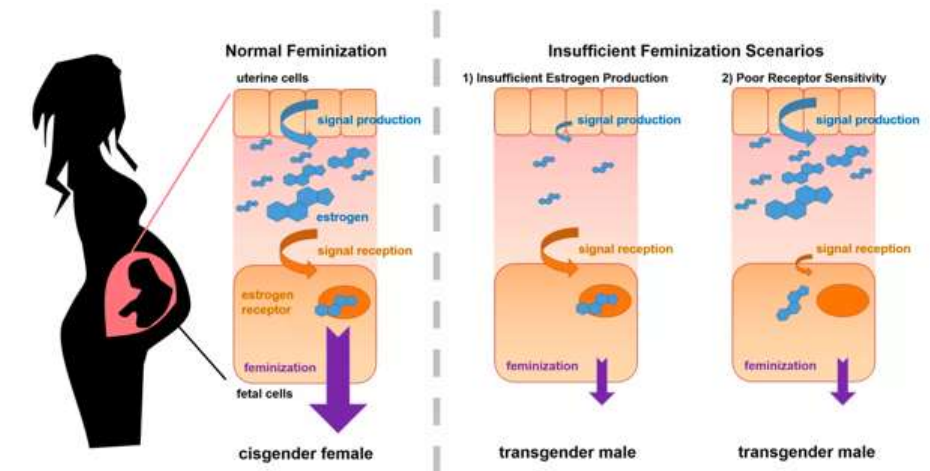
Kruijver, F., Zhou, J., Pool, C., Hofman, M., Gooren, L., & Swaab, D. (2000). Male-to-Female Transsexuals Have Female Neuron Numbers in a Limbic Nucleus. *The Journal of Clinical Endocrinology & Metabolism*, 85(5), 2034-2041.

- Bed nucleus of the stria terminalis (BSTc) and sexually dimorphic nucleus of transgender women are more similar to those of cisgender woman than to those of cisgender men
  - Suggests that brain structures of gender-diverse people tend to map onto their affirmed identity
- Study done with participants prior to any hormone treatment
  - Suggests participants were born with these structural similarities to cisgender women



# Prenatal Environment

- Brain development is heavily influenced by the prenatal environment
- Possible that trans masculine people have been exposed to lower levels of estrogen during development
  - Not enough estrogen in the fetus' immediate environment
  - Adequate estrogen in the environment, but less sensitivity in the fetus.

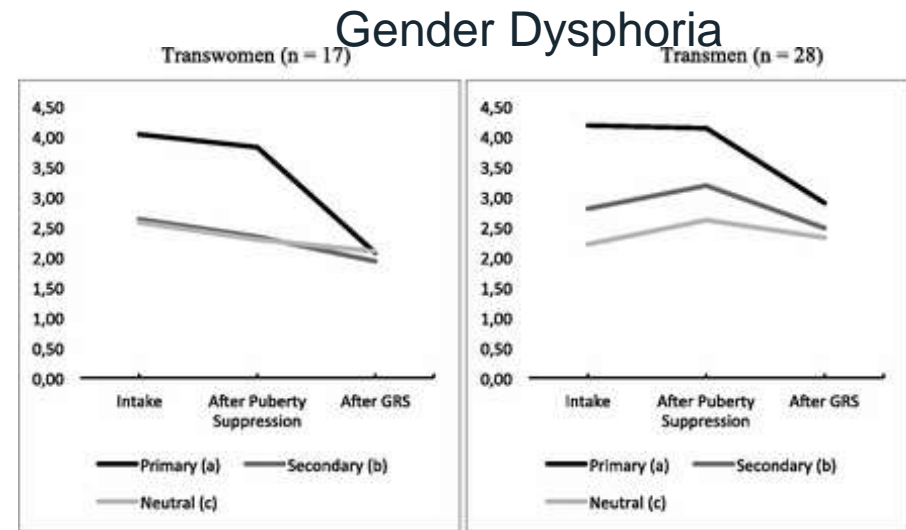


Fernández, R., Esteva, I., Gómez-Gil, E., Rumbo, T., Almaraz, M., Roda, E., . . . Pásaro, E. (2014). The ( CA ) n Polymorphism of ER  $\beta$  Gene is Associated with FtM Transsexualism. *Journal of Sexual Medicine*, 11(3), 720-728.



# Effect of Treatment

- 55 PATIENTS ~ Equal trans feminine AND trans masculine
- Puberty blocker started ~ age 13
- Gender-affirming hormones ~ age 15-16
- All surgeries at age 18
- Psychosocial eval at 20-22: *equal or better* than non-transgender age-matched controls

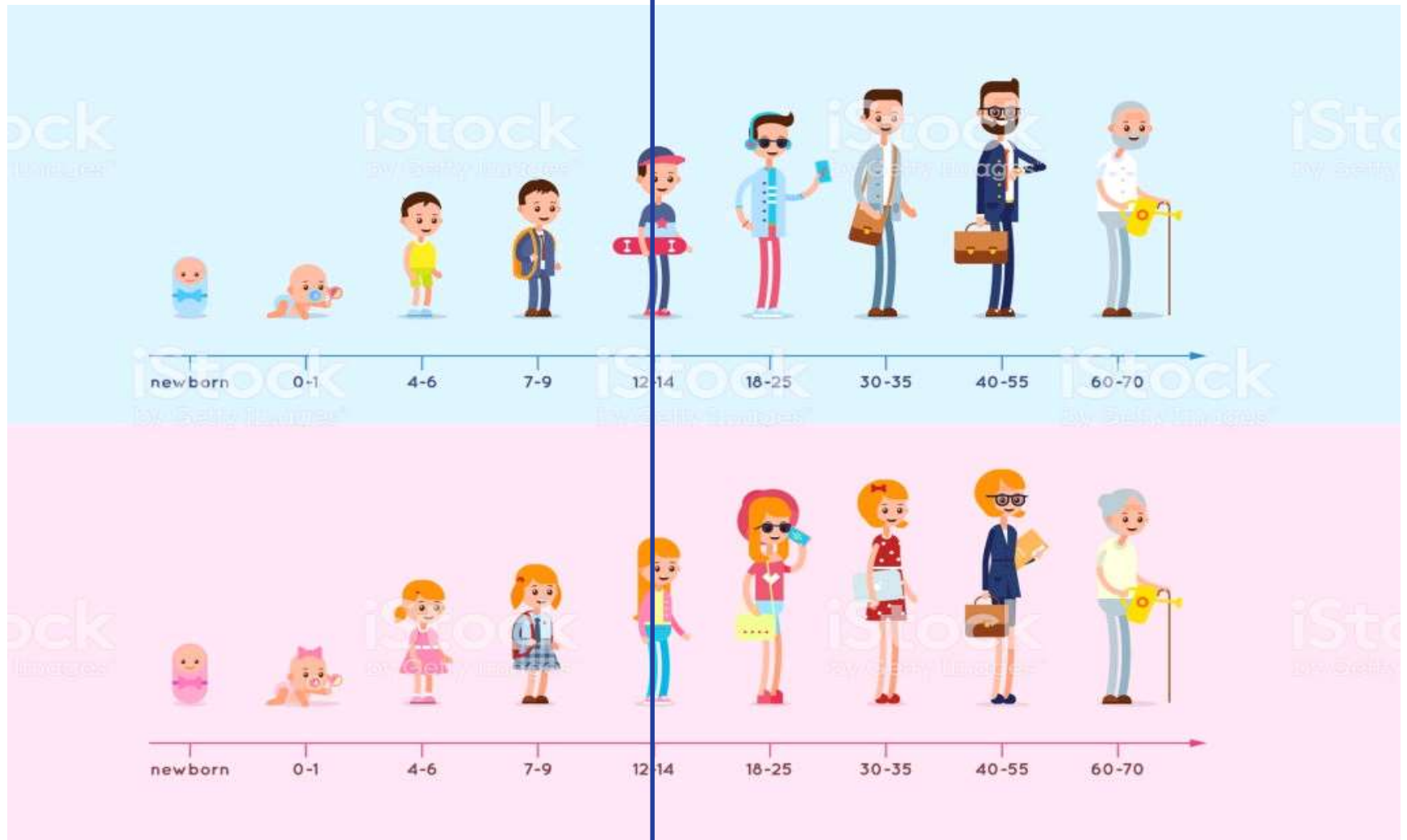


De Vries, A., McGuire, J., Steensma, T., Wagenaar, E., Doreleijers, T., & Cohen-Kettenis, P. (2014). Young adult psychological outcome after puberty suppression and gender reassignment. *Pediatrics*, 134(4), 696-704.

# The Medical Care of Gender-diverse People



# Starting Young



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# Blockers



- Lack of secondary sexual development
- Slowdown in height velocity
- ?? Brain maturation – few small studies done. Executive function: no difference with suppressed adolescents vs. control
- ?? Bone density



# Pubertal Suppression for Transgender Youth and Risk of Suicidal Ideation

Jack L. Turban, MD, MHS,\* Dana King, ALM,\* Jeremy M. Garfield, MD,\* Alex S. Kurganlian, MD, MPH\*\*

**TABLE 2** Mental Health Outcomes Among Those Who Received Pubertal Suppression

	Univariate Analyses		Multivariable Analyses	
	OR (95% CI)	P	aOR (95% CI)	P
Suicidality, past 12 mo				
Ideation	0.6 (0.4–0.8)	.006*	0.6 (0.3–1.1)	0.09
Ideation with plan	0.9 (0.5–1.6)	.73		
Ideation with plan and attempt	1.2 (0.6–2.3)	.64		
Attempt resulting in inpatient care	2.8 (0.8–9.4)	.09		
Suicidality, lifetime				
Ideation	0.3 (0.2–0.5)	<.001*	0.3 (0.2–0.6)	0.001*
Attempts	0.7 (0.4–1.0)	.08		
Mental health and substance use				
Past-month severe psychological distress, K6 $\geq 13$	0.5 (0.3–0.8)	.001*	0.8 (0.4–1.4)	0.38
Past-month binge drinking	0.3 (0.8–2.0)	.29		
Lifetime illicit drug use	1.1 (0.7–1.8)	.67		

Univariate and multivariable analyses of mental health outcomes among transgender adults in the United States who ever wanted pubertal suppression when comparing those who received this treatment with those who did not. Multivariable logistic regression models were adjusted for using the demographic variables associated with each outcome at the level of  $P \leq .20$ . Because all outcomes were associated with family support, sexual orientation, education level, employment status, and total household income, all models were adjusted for these variables. Lifetime suicide attempts were associated with gender identity, and this model was additionally adjusted for this variable. Past-month severe psychological distress and past-year suicidal ideation were additionally associated with age, gender identity, and relationship status, and thus these models were adjusted for these variables as well. Race was found to be associated with lifetime suicidal ideation and lifetime suicide attempts, and thus these models were additionally adjusted for race. Models for psychological distress and past-year suicidal ideation were also adjusted for age, gender identity, and relationship status. aOR, adjusted odds ratio.

\* Indicates statistical significance.

# Hormones in 60 Seconds

## To Feminize

- Truth #1: Testosterone effect will overpower estrogen effect
- Truth #2: For optimal feminization, testosterone levels must be lowered
- A note: There are different ways to do this
  - A) high dose estrogen + weak testosterone blocker
  - B) GnRHa (complete testosterone block) and physiologic dose of estrogen

## To Virilize

- Truth #1: Testosterone effect will overpower estrogen effect
- Truth #2 corollary: For masculinization, testosterone levels should be similar to normal reference range for male



# Feminizing Hormones

Effect	Onset	Maximum
Breast Growth	3-6 months	2-3 years
Decreased testicle size	3-6 months	2-3 years
Redistribution of body fat	3-6 months	2-3 years
Decreased muscle mass/strength	1-2 months	1-2 years
Decreased body hair growth	6-12 months	> 3 years
Decreased erections	1-3 months	3-6 months



# Masculinizing Hormones

Effect	Expected onset	Maximum
Skin oiliness/acne	1-6 months	1-2 years
Facial/body hair growth	3-6 months	3-5 years
Scalp hair loss	12 months	Variable
Increased muscle mass/strength	6-12 months	2-5 years
Body fat redistribution	3-6 months	2-5 years
Cessation of menses	3-6 months	n/a
Clitoral enlargement	3-6 months	1-2 years
Vaginal atrophy	3-6 months	1-2 years
Deepened voice	3-12 months	1-2 years

# A Team Effort



# Current Issues in Gender Health

# Non-Binary Youth

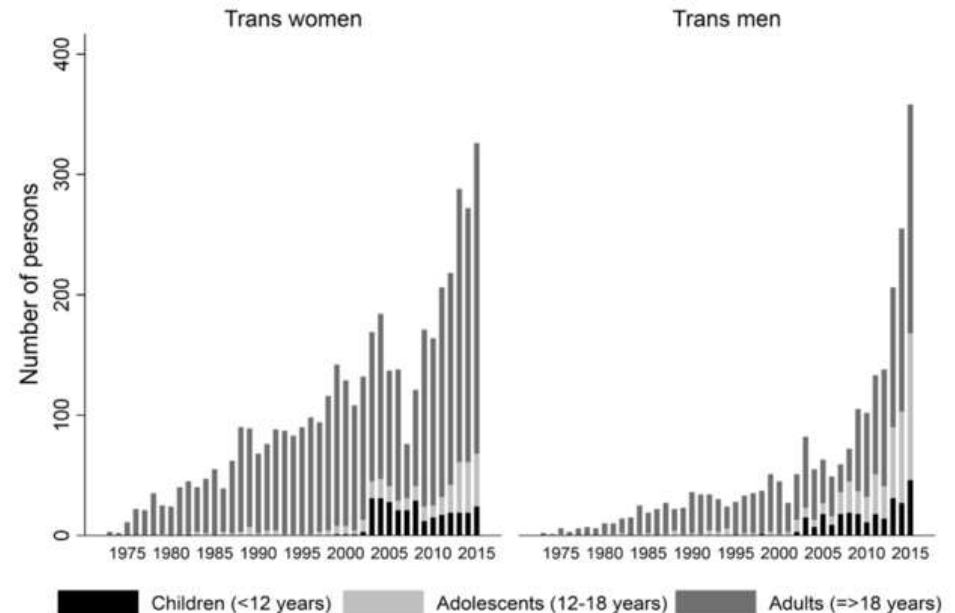
- Increase in non-binary youth
  - Estimated up to 30-40% of transgender community
- Many non-binary youth seeking out medical solutions for dysphoria
- Medical options offered are often binary.



Rimes, K., Goodship, N., Ussher, G., Baker, D., & West, E. (2019). Non-binary and binary transgender youth: Comparison of mental health, self-harm, suicidality, substance use and victimization experiences. *International Journal of Transgenderism: Non-binary and Genderqueer Genders*, 20(2-3), 230-240.

# Trans masculine Youth

- Increase in affirmed males seeking out medical affirmation
  - This trend has been reported across international clinics
- Why are seeing this trend
- Some wonder if related to sexism



Wiepjes CM et. al. The Amsterdam Cohort of Gender Dysphoria Study (1972–2015): Trends in Prevalence, Treatment, and Regrets. J Sex Med. 2018.

# “Desistance”

- There are some youth and young adults that may later “desist” from their gender identity
- Some clinics have protocols for desisting
- Still relatively rare at GeMS
- Older studies suggested up to 80% of youth desisted at some point – this has been proven to be untrue
- There are still a few vocal voices in the community who have desisted



Temple Newhook, J., Pyne, J., Winters, K., Feder, S., Holmes, C., Tosh, J., . . . Pickett, S. (2018). A critical commentary on follow-up studies and "desistance" theories about transgender and gender-nonconforming children. *International Journal of Transgenderism: Today's Transgender Youth: Health, Well-being, and Opportunities for Resilience*, 19(2), 212-224.



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# Resources for Youth

- Family Acceptance Project: [familyproject.sfsu.edu](http://familyproject.sfsu.edu)
- Parents and Friends of Lesbians and Gays: [www.pflag.org](http://www.pflag.org)
- It Gets Better Project: [www.itgetsbetter.org](http://www.itgetsbetter.org)
- The Trevor Project (suicide prevention): [www.thetrevorproject.org](http://www.thetrevorproject.org)
- Gay Straight Alliance Network: [www.gsanetwork.org](http://www.gsanetwork.org)
- Gay Lesbian & Straight Education Network: [www.glsen.org](http://www.glsen.org)
- KidsHealth: [www.kidshealth.org](http://www.kidshealth.org)
- TransYouth Family Allies: [www.imatyfa.org](http://www.imatyfa.org)



# Resources: Hotlines

- **Lesbian, Gay, Bisexual and Transgender Helpline**

617-267-9001

Toll-free: 888-340-4528

- **Peer Listening Line**

617-267-2535

Toll-free: 800-399-PEER

- **National Suicide Prevention Lifeline**

<http://www.suicidepreventionlifeline.org>

273-8255

1-800-







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# Thank you!

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