GENDER-AFFIRMING HEALTH INTERVENTIONS FOR CHILDREN AND ADOLESCENTS: FROM CLINICS TO THE COMMUNITY

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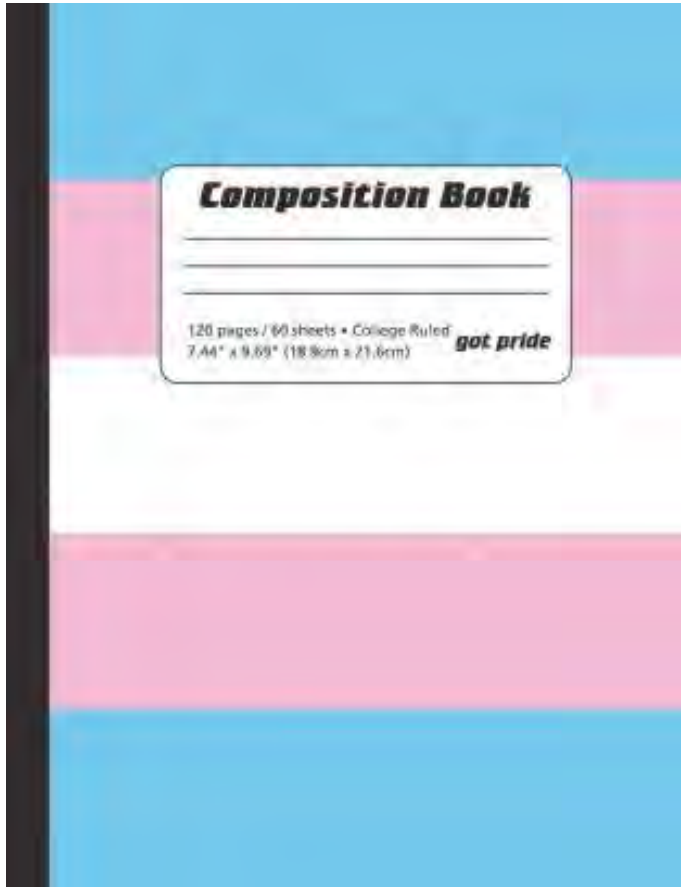
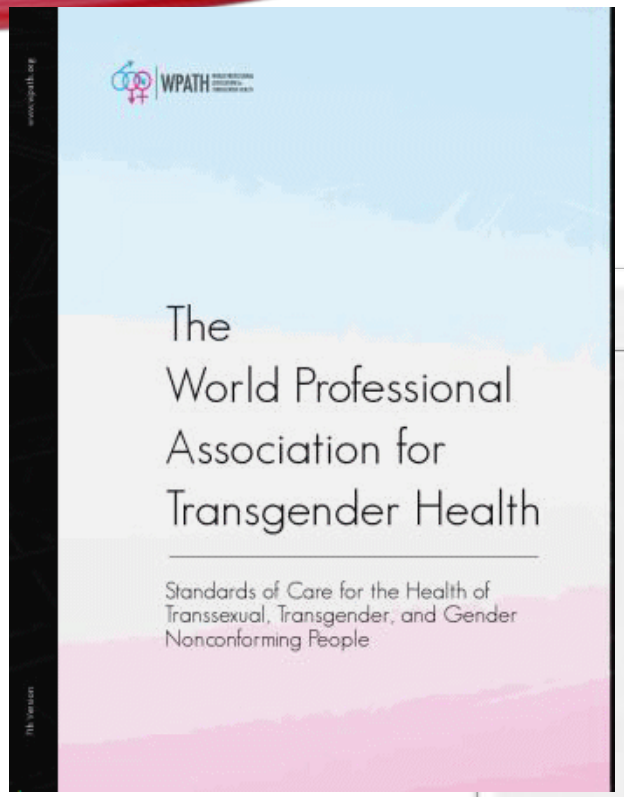
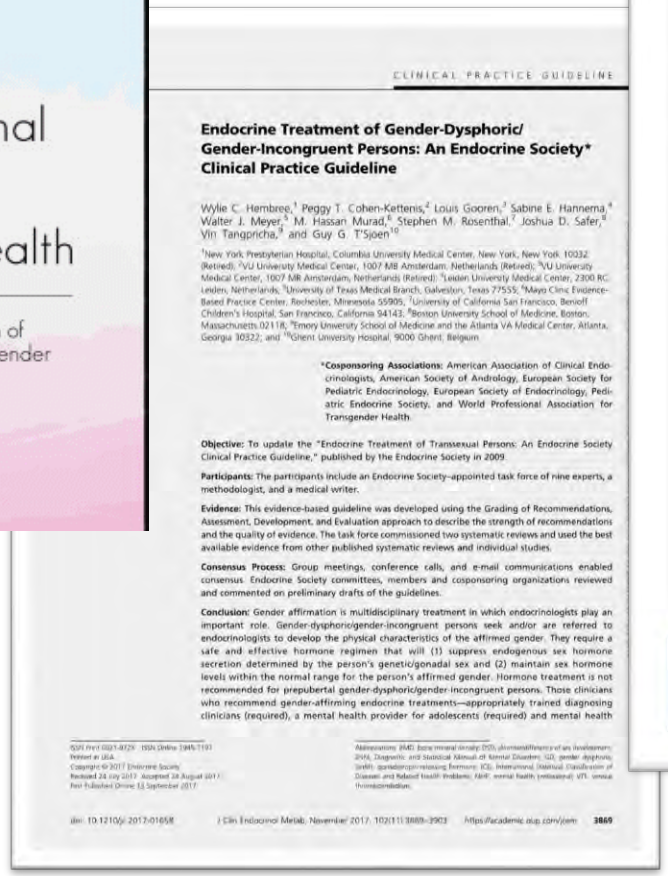
IF YOU REMEMBER 3 THINGS

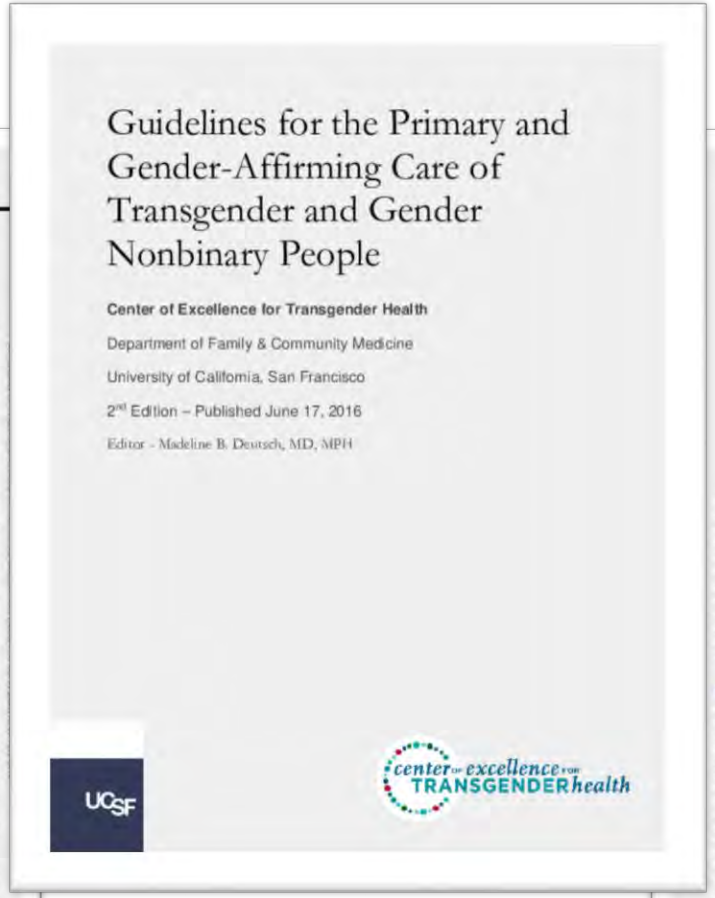


- Multidisciplinary model of care for TGD youth
- Diversity of affirmation journeys
- Positive impact of parental support and affirming environments

CARE GUIDELINES







GENDER AFFIRMATION MAY INCLUDE

- Psychosocial affirmation
- Puberty blockers
- Gender-affirming (cross sex) hormone therapy
  - Integrated with comprehensive and gender-affirming primary care
- Gender-affirming surgeries
- Legal affirmation

DIVERSITY OF AFFIRMATION JOURNEYS

PSYCHOSOCIAL AFFIRMATION

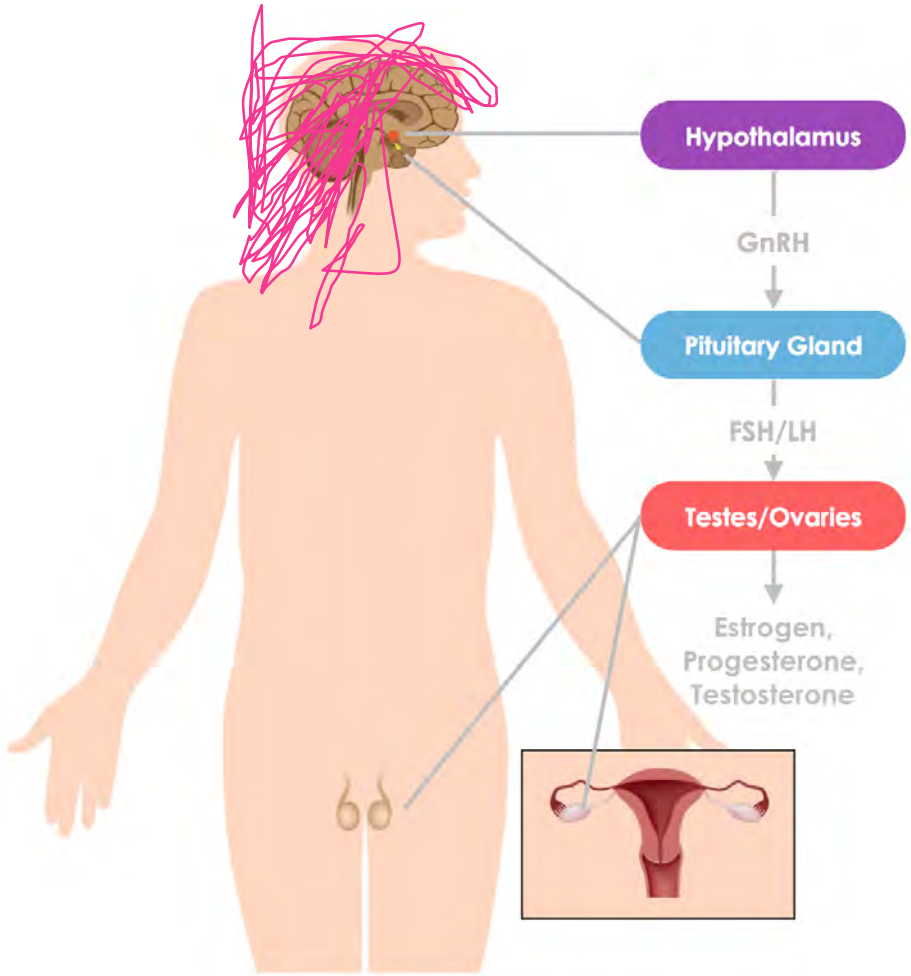
- Social
  - Pronouns
  - Name
  - Social gender role
- Psychological
  - Addressing psychosocial health concerns
  - Having support in transition process
  - Addressing internalized stigma and transphobia

ELICITING GENDER IDENTITY

- Kids: "Some kids tell me they think of themselves as girls, some as boys, some as part girl and boy, or something entirely different. How do you think about yourself?"
- Teens: "There are lots of ways people describe their gender identity, how do you think of yours?"
  - "Tell me what that term means to you?"
- Role of diagnostic evaluation

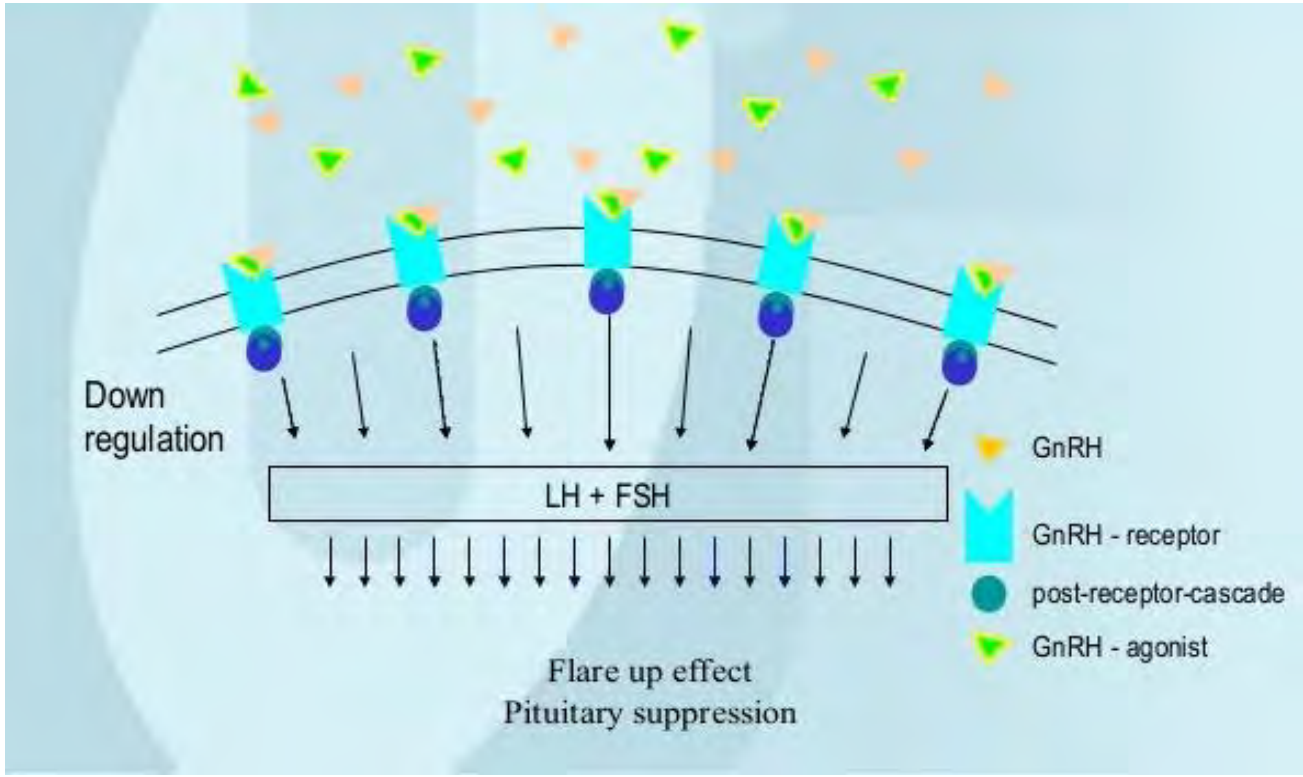
PUBERTY BLOCKERS

- Blockers are gonadotropin releasing hormone (GnRH) agonists
- GnRH
  - Pulsatile release from the hypothalamus
  - Stimulates pituitary release of luteinizing and follicle stimulating hormones (LH and FSH)
- LH and FSH
  - Stimulate the gonads to produce sex steroids (estrogen, progesterone and testosterone)



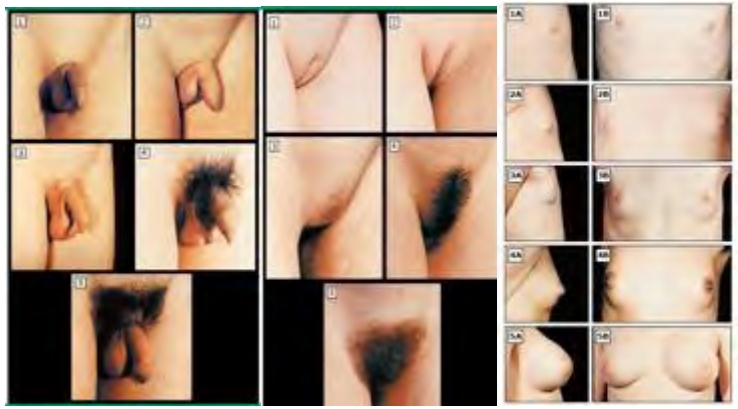
MECHANISM OF ACTION OF BLOCKERS

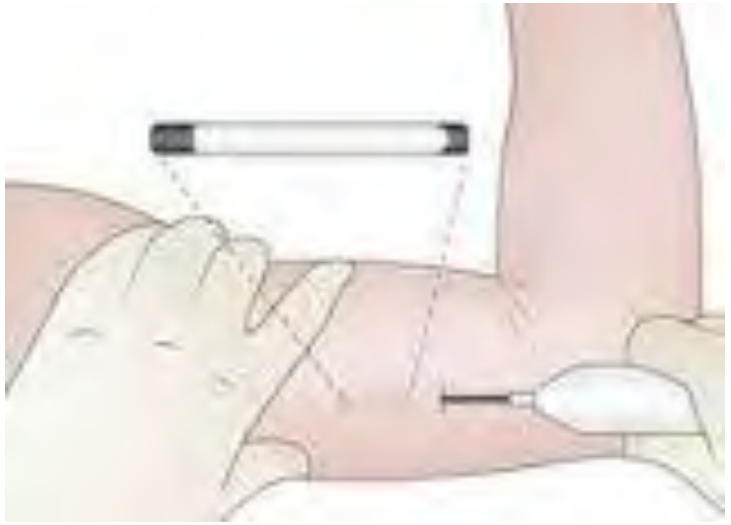
- Large non-pulsatile dose of GnRH agonist floods the pituitary
- Initial release of FSH and LH
- Initial surge of sex steroid hormones
  - Menstrual bleeding 14-28 days after injection
  - Followed by amenorrhea
- End result
  - Suppression of
    - FSH and LH secretion
    - Testicular release of testosterone
    - Ovarian release of estrogen and progesterone



GNRHA TREATMENT

- When?
  - At least Tanner (sexual maturity rating) stage 2
    - Mean age for the first signs of puberty
    - 10.5 years in ovary-bodied people, range 8 to 12 yrs
    - 11.5 years in testicle-bodied people, range 9 to 13 yrs
- What
  - Intramuscular leuprolide acetate (Lupron)
  - Histrelin Implant (Supprelin LA or Vantas)





CLINICAL EFFECTS OF GNRHA

- Will slow down
  - Pubertal development
  - Bony changes of puberty
  - Androgen-dependent hair growth
  - Deeping of the voice, enlargement of larynx
  - BMD does not increase as expected but is believed to catch up with subsequent sex steroid administration
- Completely reversible
  - If immediately followed by cross-sex hormones patient *will be not be fertile*
  - No effect on fertility if discontinued

Devries al 2011 J Sex Med

CLINICAL EFFECTS OF GNRHA

- May
  - Improve psychological function
    - But has not been found to improve gender dysphoria
  - Increase adult height in affirmed males
  - Decrease adult height in affirmed females

De Vries et al; Pediatrics 2014
De Vries et al; J Sex Med 2010

WHY USE PUBERTY BLOCKERS?

- Provide time to explore gender incongruence
- Prevent sex characteristics that are difficult or impossible to reverse
  - Adam's apple
  - Male pattern hair growth
  - Voice deepening
  - Breast development

BLOCKERS *AFTER* PUBERTY

- Prevent menstruation
- Prevent further androgen effects
- Give parents a chance to catch up
- Used post puberty will NOT cause regression in
  - Penis, beard, body hair, Adam's apple, shoulders, jaw
  - Breast or hips
- Allows use of lower doses of affirming hormones

GENDER AFFIRMING HORMONES

- Typically initiated between age 14-16 (widely variable)
  - Number of years living stably in affirmed gender role
  - Number of years of pubertal suppression
  - Degree of dysphoria
  - Distress because physical development is out of sync with peers
- Puberty is 2-3 year process – mimic this in patients who started blockers in early puberty
  - Those who present later in adolescence have already experienced near-full puberty so hormone regimens may be increased to full replacement doses over a shorter interval
  - Ideally continue blockers until gonadectomy

MASCULINIZING HORMONES

Testosterone injections, patch, or gel

Partially reversible effects
- Increased lean muscle mass / decreased subcutaneous fat
- Masculine pattern hair growth
- Chest tissue atrophy possible

- Irreversible effects
  - Deepened voice
  - Clitoromegaly
- Adverse effects
  - Acne
  - Polycythemia, transaminitis
  - Dyslipidemia, weight gain, hypertension
  - Mood lability

Video from Seattle Children's:
https://www.youtube.com/watch?v=dmjSEf2og1A

Hembree. Endocrine Society Clinical Practice Guideline 2017
Olson J. LGBT Health 2014

FEMINIZING HORMONES

Androgen blockade

- Continuing blockers
  - Allows lower doses of estrogen; even higher doses may not block effects of testosterone
- Spironolactone
- Bicalutamide

Decreased height possible

- With administration of estrogen growth plates will close

Video from Seattle Children's:
https://www.youtube.com/watch?v=8_gdLCXKl5Y

FEMINIZING HORMONES

17 beta estradiol pills, patch or injections

- Partially reversible
  - Decreased facial and body hair
  - Fat redistribution
  - Decreased spontaneous erections
  - Softened skin
- Irreversible
  - Breast tissue growth
  - Closure of growth plates
- Adverse effects
  - Thromboembolic disease
  - Liver dysfunction, cholelithiasis
  - Hyperprolactinemia, hypertension

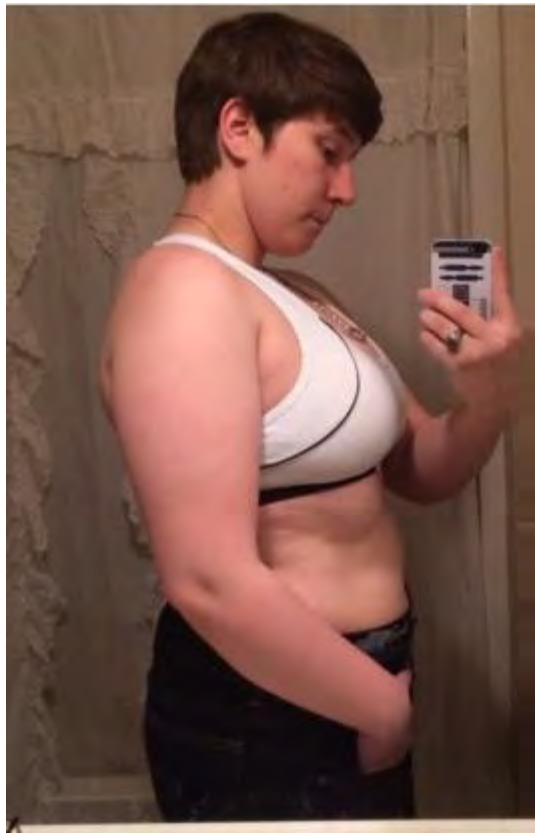
Video from Seattle Children's:
https://www.youtube.com/watch?v=8_gdLCXKl5Y

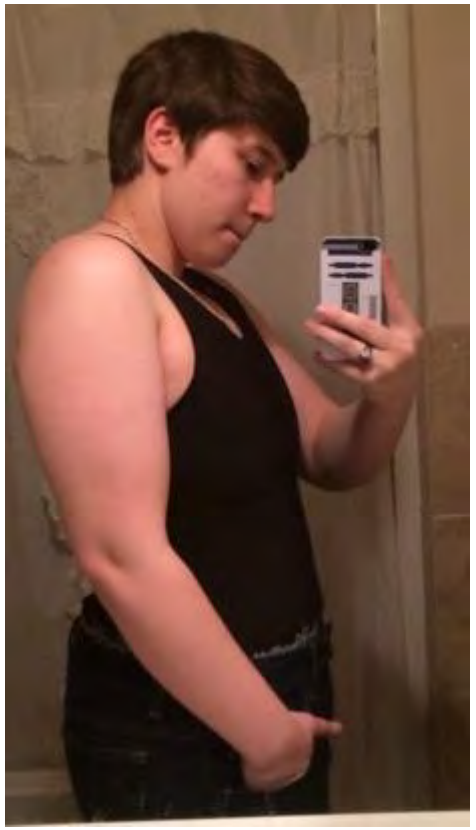
Hembree. Endocrine Society Clinical Practice Guideline 2017

FOLLOW-UP

- Ongoing mental health support
- Medical follow-up
  - Assess clinical response
  - Monitor for undesired side effects
  - Monitor labs
- Affirming primary care and specialty services
- Voice training

BINDERS, PACKERS & STP DEVICES





GENDER-AFFIRMING SURGERIES

- ”Top” surgery
  - To create a masculine chest shape or enhance breasts
- “Bottom” surgery
  - Surgery on genitals or reproductive organs
- Facial feminization
- Hair removal

A NOTE ABOUT CONSENT

FAMILY ACCEPTANCE

- Suicide rates among TGD youth are significantly lower among those with strongly supportive parents (4% vs 60%)
- TGD youth who describe at least 1 supportive person in their life report significantly less distress than those who only experience rejection
- In communities with high levels of support, non-supportive families tended to increase support over time, leading to dramatic improvement in mental health outcomes

Olson, K.R., Durwood, L., DeMeules, M., & McLaughlin, K. A. (2016). Mental health of transgender children who are supported in their identities. *Pediatrics, 137 (3),* 1-8.
Ryan et al. Family Rejection as a Predictor of Negative Health Outcomes in White and Latino Lesbian, Gay, and Bisexual Young Adults. *Pediatrics*. 123-1.2009

COMMON PARENTAL CONCERNS THAT MAY DELAY ACCESS TO GENDER-AFFIRMING TREATMENT

- Fear of harassment
- Fear of rejection by peers or other family
- Fear of physical harm
- Worry about preservation of fertility options
- Worry about appropriate timing of transition
- Grief/loss of "former" identity
- Fear of regret regarding transition
  - *How do I know they are actually transgender?*
  - *What if this is just a phase?*
  - *Why can't we wait until they have finished puberty or they are an adult before we talk about medical transition? What if my child regrets this?*

Janicka et al/Adolesc Med 029 (2018) 20-43

COMMUNITY SUPPORT

- School policies to support and affirm TGD students
- Community support groups and advocacy efforts
- Inclusive insurance policies
- Anti-discrimination laws

PROMOTING SEXUAL HEALTH OF GENDER DIVERSE ADOLESCENTS

- Welcoming environments
- Visual cues
- All-gender restrooms
- Confidentiality
- Inclusive health education curricula

Q CARD

http://www.qcardproject.com

The Q Card is tri-fold pocket communication resource designed to simultaneously empower LGBTQ youth to advocate for themselves and educate healthcare providers.

It allows youth to fill in their sexual orientation, gender identity, personal gender pronouns, and any specific concerns.

INCLUSIVE LANGUAGE

- Affirmation vs. transition
- Sex assigned at birth vs. biological/natal/real sex
- A person with ovaries/uterus/cervix vs. woman
- A person with penis/testicles vs. man
- Chest vs. breasts
- Genitals or front hole vs. penis/vagina/vulva
- Bleeding vs. menstruation
- People who menstruate/have a period vs. women
- Personal gender pronouns vs. preferred pronouns

HEARING FROM YOUTH

- AHI Video (7:43m) https://www.youtube.com/watch?v=CHN3YhMi-5A

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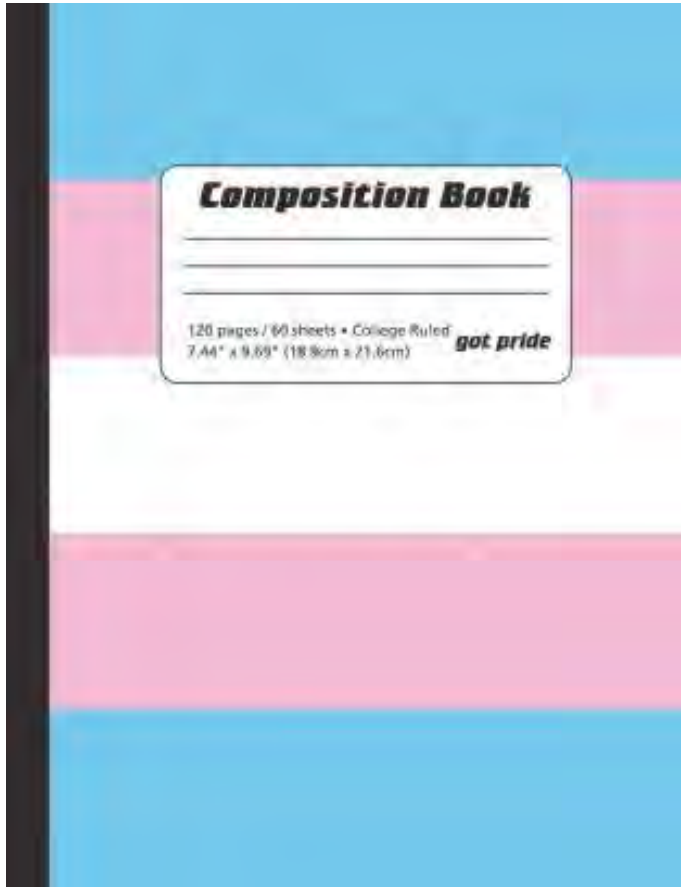

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RESOURCES

- https://www.genderspectrum.org
- https://www.umhs-adolescenthealth.org/improving-care/spark-trainings/lgbtq-youth-series/
- Guidelines
  - AAP: https://pediatrics.aappublications.org/content/142/4/e20182162
  - Endocrine Society: https://www.endocrine.org/guidelines-and-clinical-practice/clinical-practice-guidelines/gender-dysphoria-gender-incongruence
  - WPATH Standards of Care: https://www.wpath.org/publications/soc
  - UCSF: https://transcare.ucsf.edu/guidelines
- https://www.minus18.org.au/pronouns-app/
- http://www.impactprogram.org/wp-content/uploads/2014/12/Kuper-2014-Puberty-Blockers-Clinical-Research-Review.pdf
- Trans Youth Project: http://depts.washington.edu/scdlab/research/transyouth-project-gender-development/
- Celebrating Our Magic Toolkit: http://www.npaihb.org/download/Toolkit_v6_24.pdf

THANK YOU!

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EXTRA SLIDES

MEDICAL TRANSITION FOR YOUTH IS COMPLICATED: PARENTAL CONCERNS

- How do I know they are actually transgender?
- What if this is just a phase?
- Why can't we wait until they have finished puberty or they are an adult before we talk about medical transition? What if my child regrets this?

RESILIENCE

- Many transgender youth lead normal, productive lives
- Usually develop resilient adaptations to social biases and mistreatment
- Many develop and possess remarkable strength and self-determination

EVALUATION AND MONITORING

- Height / weight / blood pressure / Tanner stage
  - baseline and every 3-6 months thereafter
- Ultrasensitive fsh / lh / testosterone / estradiol
  - baseline, 8 weeks, one year. After first year, every 6 mo and if any signs of re-emerging puberty
- Bone age / vitamin D
  - baseline and annually
- Dexa scan
  - baseline and every other year; in all patients ensure adequate calcium intake, and weight bearing activity
- Replace implant after 3 years

2017 Guidelines endorsed by Pediatric Endocrine Society

MASCULINIZING HORMONES WITH BLOCKERS

- In postpubertal patients
  - increase more rapidly up to 75 mg/2 wk for 1st 6 mo
  - then increase up to 125 mg/2 wk
- Adult dose - most patients reach normal male range of total testosterone and good clinical results at
  - 50-75mg SC Q week or
  - 50-100mg IM Q week or 100-200mg IM Q 2 weeks
  - Adjust dose to mimic physiologic testosterone levels 400-700ng/dl

Hembree. Endocrine Society Clinical Practice Guideline 2017
Olson J. LGBT Health 2014

MEDICAL MONITORING

- Every 3-6 months: ht/ wt / BP / Tanner stage
- Every 6-12 months: hemoglobin/hematocrit, lipids, testosterone, vitamin D
- Every 1-2 years bone age and DEXA (latter until 25-30 yo)

Hembree. Endocrine Society Clinical Practice Guideline 2017