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Eating Behaviors and Gender Diverse Youth and Young Adults

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Agenda

- Overview of terms
- Explore risk factors for ED among TGD youth
- Understand the continuum of effects of CSHT/HRT on:
  - CVD risk
  - Body image
  - Disordered Eating
- Resources and open discussion

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Terminology

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Sex

Intersex- naturally occurring variations in hormones, chromosomes, gonads, or reproductive organs that do not align with binary sex norms

Endosex- people who have physical sex characteristics in alignment with binary sex norms

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Gender

Transgender- someone who **does not** identify with the gender they were assigned at birth

Cisgender- people who do identify with the sex they were assigned at birth

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AMAB?
AFAB?

Can be a useful term to describe life experience.

However, trans and gender diverse people have moved away from this term due to its emphasis on gender essentialism

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How do I talk about transgender people?

Instead of...	How about...
"Max is transgendered."	"Max is transgender."
"Max is a transgender."	"Max is a transgender person."
"Your pronouns are tricky. Don't get mad if I mess them up."	No need to say anything. Simply do your best. If you make a mistake, correct yourself, apologize, and then move on (avoid over apologizing).

What terminology is usually offensive or outdated?

transvestite, she-male, he-she, it, transsexual, tranny, hermaphrodite, pre-op/post-op, sex reassignment surgery, "preferred" pronoun/"preferred" name, birth name, FTM, MTF

(Always mirror the language a trans or non-binary person uses for themselves)

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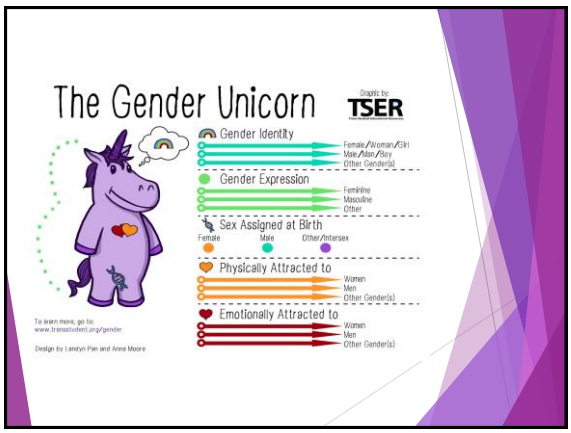

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What Does it Mean to Transition?

- Transition does not have to be medical.
- Not every person who wants to medically transition can access it.
- Medical interventions for transition do not have to occur in any particular order.
- There are no medical interventions that make someone "more transgender" than someone else.
- All approaches to gender transition are valid. There is no such thing as "not trans enough."

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Gender Dysphoria, Body Dysmorphia, Body Dissatisfaction

Gender Dysphoria- distress that arises from the incongruence between how a person's gender is perceived and their internal experience of their gender.

Body Dysmorphia- Distress due to perceived flaws/defects of the body.

Body Dissatisfaction- Feeling worthless due to perception of body, hating body, etc.

Treatment strategies are different!

Joy et al. (2022)

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TGNB Youth At-Risk for Disordered Eating

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Transgender Youth At a High Risk for Eating Disorders

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Why are Trans and Gender Diverse Youth and Young Adults at risk?

- TGD people may use disordered eating behaviors to suppress or accentuate particular gendered features
- Weight loss may be a way for binary trans individuals to conform to ideals of slimness/attractiveness and support their ability to pass as cisgender
- TGD people may use weight loss to suppress secondary sexual characteristics
- Disordered eating behaviors are a coping strategy to manage impacts of trauma and stress
- BMI limits of gender affirming surgeons

Diemer et.al. (2015)

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Unique Body Experiences of Trans Youth

- Grief and the body (S.J. Langer, 2019)
- External Pressures/Minority Stress
- Body Neutrality vs. Body Positivity
- Trauma and Dysphoria- Body is sometimes a "minefield"

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BMI and Gender Affirming Surgical Interventions

- Many surgeons require will not operate on someone over a certain BMI (25-30)
- This is not scientifically supported (Carter et al., 2022)
- TGD young people may feel that they need to lose weight by any means necessary to meet their transition-related goals

Carter et al. (2022)

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ED May Not Resolve with HRT Alone

- Do not get to choose what physical changes happen on HRT
- ED as strategy to attempt to manage fat redistribution
- ED is coping strategy which can continue after medical transition

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Atypical Anorexia Nervosa

- Many people with AAN have history of obesity
- Pediatric providers trained to treat obesity, often not restrictive eating patterns
- May appear to be at a "healthy weight"
- Take longer to be identified, may be reluctant to engage in treatment
- Often more severe psychological symptoms
- Experience malnutrition, and severe physiological complications

Garber et al. (2019)

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Peer Support

- FEDUP- Fighting EDs in Underrepresented Populations
- Embody Carolina Peer Support Group
- Eating Disorder Foundation Support Groups
- ANAD Support Groups
  - *Eating Disorders in Larger Bodies Group*

https://fedupcollective.org/resources

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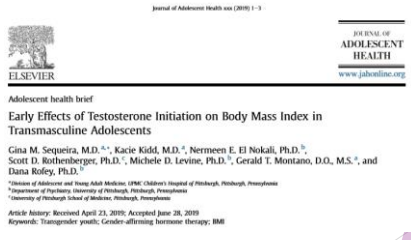
How did you get stuck hearing from us?



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Adolescent health brief

Early Effects of Testosterone Initiation on Body Mass Index in Transmasculine Adolescents

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Case Examples

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Case 1

Sam is a transmasculine patient. This patient was started on a GnRH analog (puberty blocker) at Tanner (Sexual Maturity Rating, SMR) 2 and continued on the puberty blocker until after starting testosterone at age 15. At age 16 he was found to have a BMI of 28kg/m^2. Sam's gender marker has not been legally changed, therefore the electronic medical record (EMR) at his provider's office automatically denotes him as female. Per the BMI-percentile growth chart for females, he is considered "overweight" (94th percentile).

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Case 2

Lea is a transfeminine patient. This patient presented for gender care at Tanner (SMR) 5 and did not receive a GnRH analog for pubertal blockade. Her gender marker was legally changed so the EMR automatically plots her on the female BMI percentile growth chart. Her BMI at age 16 is 17 kg/m^2. On the female growth chart she is considered normal weight (6th percentile).

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In our own words…

- "Imagine hating your body so much that you can't even look in the mirror. When you do, you see someone you don't recognize because it's all wrong."
- "I have bound my chest for 3 years. I want top surgery more than anything. My parents won't sign the release for me to have it. The thought of waiting 2 years until I can make this decision myself is brutal."
- "Restricting my eating is the only way I can control the width of my hips. I hate looking the way I do. Putting weight on goes straight to all the places I hate."

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Limits of BMI as a Tool for Understanding Health

- Overreliance on BMI to as a measure for cardiometabolic health results in the mis-categorization of many adults as cardiometabolically unhealthy or healthy (estimated 74,936,678) (Tomiyama et al., 2016)
- Emphasis on weight loss can instigate disordered eating behavior
- Health promoting behaviors vs. weight loss
- Weight discrimination increases risk of mortality (60% increase), higher than other types of discrimination Sawyer et al. (2016)
- Intersections between weight discrimination and anti-Blackness (Strings, 2019)

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Health Equity, Size, and Health Care Access

- "Fat Broken Arm Syndrome": Negotiating risk, stigma and weight bias in LGBTQ Healthcare (Paine, 2021)
  - Patients often feel weight is more important than their health-related goals
  - Causes patients to delay or disengage from healthcare
  - Disproportionately impacts multiply marginalized patients
  - Don't need to avoid talking about weight, just awareness of fat stigma/bias and pay attention to patient's health goals
  - Weight neutral stance

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Cardiovascular Health and GAH

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Testosterone Effects Independent of CSHT

Hyperandrogenism:

- Characterized in females by hirsutism, alopecia, menstrual disorders and, in more extreme instances, virilization
- Used as a diagnostic marker for polycystic ovary syndrome (PCOS).
  - Patients with PCOS who exhibit hyperandrogenism almost always experience comorbid obesity
- Link between obesity and hyperandrogenism in PCOS is often traced to hyperinsulinimia triggered by peripheral insulin resistance

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Estrogen Effects Independent of CSHT

Hyperestrogenism:

- Frequently identified in males diagnosed with gynecomastia (a condition in which there is a proliferation of male breast tissue)
- Many of physiological side-effects of elevated estrogen in males seem to occur an increased estrogen to androgen ratio
  - For instance, breast enlargement becomes somewhat more prevalent among boys in early puberty when estradiol levels increase more rapidly than testosterone
- Obesity may also be related to unbalanced estrogen to androgen ratios in males as obesity frequently comorbid with gynecomastia across age groups
- Estrogen administration has been shown to increase insulin resistance in men independent of the effects of visceral adipose tissue while testosterone has the opposite effect

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Standard of Care

Puberty in transgender youth often accompanied by specific anatomic dysphoria

Endocrine Society Guidelines for the Care of Transsexual Individual's (2021):

- Use of (GnRHa) to suspend the endogenous puberty in Tanner Stages 2-3
- Addition of cross-sex hormones at about the age of 16

World Professional Association on Transgender Health (WPATH) standards permit use of cross-sex-hormones earlier than 16, on a case-by-case basis

Gender affirming hormone therapy (GAH) in transgender youth (TGY):

- Male-to-female (TGF) anti-androgens and estrogen therapy to induce feminization; transfeminine
- Female-to-male (TGM) receive testosterone therapy to obtain masculinization; transmasculine

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CSHT and Body Composition

- Current studies suggest that CSHT increases body weight in both TGFs and TGMs, but more significantly for TGMs
  - TGFs show an increase in body fat and a decrease in lean body mass
  - TGMS show a decrease in body fat and an increase in lean body mass
- It is well established that weight gain and body fat are associated with unfavorable cardiovascular risk factors such as dyslipidemia, and an increased risk of developing type 2 diabetes and hypertension
- Obesity, weight gain and high body fat are associated with an increased overall risk of mortality
- Conversely increases in lean body mass are associated with *lower* mortality

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CSHT and Cardiovascular Risk

- Most studies performed on the safety of CSHT found lower or similar cardiovascular morbidity in TGM compared to control women
- Research examining changes in visceral body fat and cardiovascular markers after one year of CSH demonstrated that:
  - TGF saw significant increases in fasting insulin and triglycerides
  - TGM saw no significant changes in either factor
- Research examining individuals who had an average of 11 years of CSHT initiated in adulthood revealed that 12% of transwomen experienced concomitant thromboembolic or other cardiovascular events while none of the transmen exhibited these events

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CSHT and Cardiovascular Risk in TGFs

- Multiple studies in TGF have observed more cardiovascular morbidity in comparison with biological men
  - Possible lifestyle factors or estradiol use result in thrombogenic hemostatic alterations which contribute to the increased incidence of CVD observed in TGFs
  - Increased weight and body fat and decreased lean body mass during CSHT may play a role in this increased cardiovascular risk in TGFs in comparison with biological men

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Treatment implications

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Body Image and Transgender Youth

- Persistent identity messages incongruent with the physical body
- Inner sense of the self versus external self
- Struggle between accepting internal self and suppressing it (acceptance/belonging, current relationships)
- Fear of societal/familial reactions
- Body functions e.g., menstruation, breast size

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Case 3

Carter is a 19-year-old transmasculine college student who presented with anxiety. As sessions progressed, a clear eating disorder emerged. As an adolescent, he restricted his intake. After an appointment with a PCP, his mother started to monitor his intake more closely. He was restricted calories and diagnosed with Anorexia Nervosa. He was given an ultimatum to "get his period" if he wanted to continue to work at his desired location. Three years later, he hates his body and binge eats daily. He's thinking about starting testosterone. What considerations may be discussed?

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CSHT and CVD: Large Cohort Study

Nota et al., 2019

- Sample: 2517 TGF (median age 30, estrogens) and 1358 TGM (median age 23, testosterone)
  - All patients had known start date for CSHT and no preexisting CVD
- TGFs: Significantly higher occurrence rate of stroke and thrombo-embolism in comparison to female and male reference groups and of myocardial infarctions in comparison to only female reference group
- TGMs: Significantly higher occurrence rate of myocardial infarctions in comparison to only female reference group
- **Limitations**: No adjustment for psychological stressors or smoking

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CSHT in Relieving Body Dissatisfaction/Disordered Eating

- Six-month study of 50 transgender adolescents
  - At baseline:
    - MtF and FtM patients both reported more disordered eating symptoms than cisgender controls
    - MtF patients reported more overall body dissatisfaction than FtM patients or cisgender controls
  - At 6 months:
    - 28% on CSHT, 11% on hormone blockers
    - Those on any hormone therapy reported **less overall body dissatisfaction** and **less disordered eating** than those transgender adolescents not on hormone therapy

Sequiera et al., 2018

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CSHT in Relieving Body Dissatisfaction/Disordered Eating cont.

- Body expectation and reality better aligned
- Active effort to change body bypassing needs to:
  - suppress eating to conform to ideals of slimness/attractiveness
  - use weight loss to suppress secondary sexual characteristics

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Take-home messages

- Educate yourself and always take the patient's lead with terminology
- Understand the silo systems and how to:
  - Understand gender identity and the role that body has on the psyche
  - Understand disordered eating and the role that it may have on controlling body composition/structure
- Identify cardiovascular risk factors associated with GAH
- Know when to refer or ask for consultation!

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Resources

- Eating Disorders in LGBT Populations
  www.nationaleatingdisorders.org/eating-disorders-lgbt-populations
- Dececo, *Looking Queer*
- International Journal of Transgenderism
- NEDA – Gender Outside the Binary series
- National LGBT Education Center
- Pepper – *Transitions of the Heart*
- Sallans – *Second Son*

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Referral Sources

Gender Care

- Community
  - PERSAD
  - Metro
  - Central Outreach
- UPMC
  - Children's Adolescent & Young Adult Medicine (<26 yo)
  - Internal Medicine (>26)

Eating Disorder Care

- Western Psych's Center for Eating Disorder
- Emily Program
- Sweetwater
- Private and national resources

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