RESEARCH POSTER SYMPOSIA II: GENDER AND SEXUAL HEALTH

17.

DEVELOPMENT AND VALIDATION OF NEW GENDER DISTRESS AND GENDER POSITIVITY SCALES FOR YOUNG TRANSGENDER ADOLESCENTS IN CANADA

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Purpose: Existing measures of gender dysphoria or gender distress for research and clinical practice do not currently take into account non-binary identities, or differentiate distress based on sexed aspects of the body or social gender. The existing measures also contain non-equivalent questions based on sex assigned at birth, and do not include measures of positive aspects of gender identity, which we conceptualized as differing from mere absence of distress. For the Trans Youth CAN! cohort study of young adolescents [ages 10-15] in gender clinics across Canada [N=161] we developed and tested new gender distress (TYC-GDS) and gender positivity (TYC-GPS) scales to address these issues, and to improve sensitivity to early non-surgical changes to clinical care, such as prescribed puberty blockers or hormones.

Methods: Based on existing research and youth lived experience, the TYC-GDS (16 items) and TYC-GPS (12 items) were each developed with two subscales of related to social gendered experiences (Social) and sexed body experiences (Body). Items use a 5-point summated rating scale disagreeing or agreeing to the statements. Measures were administered at the first clinic visit for gender affirming hormone care in English or French. Validation of the scales involved inter-item polychoric correlations; internal consistency reliability; confirmatory factor analyses; convergent/divergent validation with a number of existing measures such as depressive symptoms, self-harm, quality of life, and parental support; and congruence/divergence between the TYC-GDS and TYC-GPS and subscales.

Results: Based on inter-item correlations and internal consistency, we dropped one item from each of the TYC-GDS and TYC-GPS, and shifted one TYC-GDS item to the Body subscale, and one TYC-GPS item to the Social subscale. CFA factor loadings confirmed a 2-factor correlated solution for both TYC-GDS (r=0.73, p<.001) and TYC-GPS (r=0.32, p=0.001). TYC-GDS total and subscale scores were significantly correlated with measures of distress, depression, social avoidance, and self-harm; Body subscale was correlated with desire for surgery and disordered eating, and Social with suicidality (all p<.05 to p<.001). As hypothesized, TYC-GPS total and subscale scores were significantly correlated with family connectedness, school connectedness, life quality and positive feelings about gender, and total and Body subscale (but not Social) with parental support (all p<.05 to p<.001). The final TYC-GDS and TYC-GPS scores were negatively correlated with each other (r=-0.53, p<0.001); however, most youth reported high levels of both gender distress and gender positivity. Subscales were also negatively correlated between the scales (Body, r=-0.65, p<.001; Social, r=-0.19, p<.001).

Conclusions: Results support that gender distress and gender positivity related to social gender and sexed body experiences among young trans adolescents are distinct constructs, with both distress and positivity co-occurring rather than along a continuum. While we found evidence to support validity in the small clinical population for which the scales were designed, they should be evaluated for older adolescents, non-clinical trans and non-binary youth, and young adults for their ongoing salience, and in subsequent longitudinal studies for sensitivity to change over time.

Sources of Support: Grant #MOP-148641 from the Canadian Institutes of Health Research.

18.

CONTINUATION OF GONADOTROPIN-RELEASING HORMONE ANALOGUE USE AMONG TRANSGENDER AND GENDER-DIVERSE ADOLESCENTS WITH ACCESS TO LOW- OR NO-COST GENDER-AFFIRMING MEDICAL CARE

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Purpose: The Endocrine Society Guideline for Transgender Care and the World Professional Association for Transgender Health Standards of Care recommend the use of gonadotropin-releasing hormone analogues (GnRHa) as a treatment option for adolescents with gender dysphoria who have not completed puberty. These medications attenuate sex hormone production and pause development of secondary sex characteristics. The effects of GnRHa are reversible, allowing adolescents time to explore their gender identity before determining if they would benefit from interventions with partially irreversible effects, such as gender-affirming hormones. Critics of this approach have argued that starting GnRHa treatment will inevitably lead to the use of gender-affirming hormones, thus adolescents must understand the consequences of possible future irreversible treatments in order to assent to GnRHa treatment. We performed this study to assess the continuation rate of GnRHa treatment among transgender and gender-diverse (TGD) adolescents and the progression to gender-affirming hormones.

Methods: This is a secondary analysis of medical billing records from the United States Military Healthcare System from 2009-2018. Using pharmacy records and diagnostic codes, we identified TGD individuals who initiated GnRHa treatment prior to age 18 and between 30 days before their first visit and 90 days after their most recent visit that addressed gender dysphoria. We used Kaplan-Meyer analyses to estimate the proportion of patients who stopped GnRHa without starting gender-affirming hormones and the proportion who went on to initiate gender-affirming hormones. We explored the influence of demographic factors on these outcomes. IRB approved.

Results: We identified 93 TGD adolescents who initiated GnRHa. The majority were transmasculine (58%) and had an enlisted (lower income) insurance sponsor (66% enlisted versus 34% officer). Average age at first gender dysphoria-related diagnosis was 13.5± 2.5 years (range: 5-18 years) and the average age at initiation of GnRHa was 13.9±2.5 years (range: 9-17 years). One year after starting GnRHa, 8.4% (95% CI: 1.0% − 15.8%) were no longer taking any gender-affirming medications (GnRHa and/or gender-affirming hormones). Over the first three years, none of the patients who started GnRHa

between 15–17-years old had stopped gender-affirming medications compared with 10.6% of patients who started GnRHa between 9–14-years, though this difference did not reach statistical significance. Insurance sponsor's rank (family income), birth-assigned sex, and the presence of mood disorders were not associated with cessation rates. Within 2 years of starting GnRHa, 83.2% (95%CI: 70.2 – 94.4%) of patients had started gender-affirming hormones; within 8 years of starting GnRHa, this number increased to 91.6% (95%CI 81.6 –100%). Younger patients had a greater delay in starting gender-affirming hormones. Insurance sponsor's rank, birth-assigned sex, and the presence of mood disorders were not associated with initiation of gender-affirming hormones.

Conclusions: Contrary to concerns, GnRHa use did not inevitably lead to use of gender-affirming hormones. One out of twelve TGD adolescents who started GnRHa to address gender dysphoria subsequently stopped treatment.

Sources of Support: None.

PLATFORM RESEARCH PRESENTATION III: INTERVENTION AND PREVENTION

19.

HIGHER CALORIE REFEEDING IN ATYPICAL ANOREXIA NERVOSA: SHORT-TERM OUTCOMES FROM THE STUDY OF REFEEDING TO OPTIMIZE INPATIENT GAINS (STRONG)

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Purpose: StRONG was a multicenter randomized clinical trial of refeeding in hospitalized adolescents and young adults with malnutrition secondary to anorexia nervosa (AN) and atypical anorexia nervosa (AAN) (ClinicalTrials.gov #NCT02488109). At end-of-treatment, higher calorie refeeding (HCR) was more efficacious and less costly than lower calorie refeeding (LCR). Here we compare efficacy of HCR in AAN vs. AN.

Methods: Participants were N=120, 12-24 yr-olds with > 60% median Body Mass Index (%mBMI) and medical instability. AAN was defined as %mBMI >85% at baseline. Meal-based HCR began 2000 calories/day (kcal/d) and advanced 200 kcal/d; LCR began 1400 kcal/d and advanced 200 kcal every other day (no tube feeding). Efficacy was defined as time to restore a 6-point Medical Stability Index (MSI): heart rate (HR) ≥ 45 bpm; systolic blood pressure (SBP) ≥ 90 mmHg, temperature ≥ 35.6° C, orthostatic increase in HR ≤ 35 bpm and decrease SBP ≤ 20 mmHg, and ≥ 75% median BMI (%mBMI). Main outcome was days to restore MSI, compared between groups with unpaired t-test. Exploratory moderator analyses examined the interaction between refeeding treatment and diagnosis on key outcomes (time to recover heart rate and weight gain). Weight gain was defined as change in %mBMI.

Results: Modified intention to treat analyses included N=111. Mean age was 16.5 (2.5) yrs, 43% had AAN. Upon admission, %mBMI was 95.2 (9) in AAN vs. 76.5 (5.9) in AN, p<.001. Upon discharge, %mBMI was 98.3 (8.9) in AAN vs. 82.2 (5.3) in AN, p<.001. MSI was restored fastest in patients with AN refed by HCR [7.1 (5.4) days], whereas

medical stability required three additional days to restore in patients with AAN [10.1 (5.3) days, p<0.01]. Diagnosis (AAN or AN) and treatment (HCR or LCR) interacted to weaken the effect of refeeding on HR recovery [B=3.76 (.572,6.95), p=0.021] and weight gain [B=039 (.006,072), p=0.021], which was 0.3% mBMI per day slower (p=0.005) and 2.6% mBMI less overall (p=0.009) in AAN than AN.

Conclusions: While HCR is more efficacious than LCR for refeeding in AN, it may contribute to underfeeding in AAN.

Sources of Support: National Institute Child Health & Human Development #R01HD082166; ClinicalTrials.gov Identifier NCT02488109.

20.

IN AN ETHNICALLY/RACIALLY AND SOCIOECONOMICALLY DIVERSE SAMPLE OF ADOLESCENTS, DO WEIGHT STIGMA, FAMILY FUNCTIONING, AND PARENTING PRACTICES PREDICT DISORDERED EATING BEHAVIORS EIGHT YEARS LATER?

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Purpose: Weight stigma is a prevalent problem with concerning health consequences in young people. For example, studies in adolescents and young adults have consistently found that weight stigma is associated with higher prevalence of depressive symptoms, low self-esteem, body dissatisfaction, and disordered eating behaviors. Because of the crucial role of family members and the home environment for adolescent psychosocial development, it is important to understand the relationship between weight stigma and disordered eating behaviors within the familial context. The present study aimed to examine whether weight stigma, family functioning, and parenting practices during adolescence predict unhealthy weight control behaviors (UWCB) eight years later.

Methods: Ethnically/racially and socioeconomically diverse adolescents in this prospective cohort study were surveyed within local public schools in the Project EAT 2010-2018 study (mean age=14.4 years at baseline, N=1534). Adolescents self-reported on four weight stigma variables (hurtful weight-related comments from family, weight teasing from peers, weight teasing from family, and weight teasing from any source) and four family variables (family functioning, parental connection, parental monitoring, and parental psychological control). The outcome, UWCB (e.g. fasting, vomiting, laxative use), was self-reported by young adults eight years later. Logistic regression models estimated odds ratios (OR) and 95% confidence intervals (CI) of UWCB for four weight stigma predictors and four family predictors. Models were adjusted for sociodemographic characteristics, baseline UWCB, and baseline BMI percentile, and predictors were modeled separately.

Results: In analyses adjusted for sociodemographic characteristics, all weight stigma and family variables during adolescence longitudinally predicted significantly higher odds of UWCB eight years later. After additionally adjusting for baseline UWCB and baseline BMI percentile, two weight stigma variables (weight teasing from family [OR: 1.42, 95% CI: 1.08, 1.87] and hurtful weight-related comments from family [OR: 1.34, 95% CI: 1.06, 1.70]) and one family variable (poor family functioning [OR: 1.44, 95% CI: 1.14, 1.81]) remained significantly associated with subsequent UWCB.

Conclusions: Findings indicate that there are long-term consequences, across major development periods, of weight teasing from family, hurtful weight-related comments from family, and low family