

**Methods:** We completed a retrospective chart review of patients presenting for new eating disorder assessments at a single centre pediatric ED program within a tertiary care children's hospital between January 1, 2015 and December 31st 2020. Patients aged 9-18 years old with a new diagnosis of Anorexia Nervosa (AN) restrictive type or binge/purge type or Other Specified Feeding and Eating Disorder (OSFED) - Atypical Anorexia Nervosa (AAN) were included. Demographic and clinical variables for pre and during pandemic were analyzed using Chi-Square and T-Tests. Interrupted time series regression was used to examine pre-pandemic and pandemic monthly summary data over time.

**Results:** Overall, 425 youth were newly diagnosed with AN or AAN (N=329 pre-pandemic, N=96 pandemic) during the study period. Average age was 14.7 years (SD 1.8, range 8.1 – 17.9). Most youth were diagnosed with DSM-5 AN-restrictive type (65.6%). The number of new diagnoses of AN and AAN during the pandemic more than doubled when compared to pre-pandemic years. In the 5-year period preceding the pandemic, mean number of newly-diagnosed cases was 5.1/month ( $\beta$ coeff=0.043,  $p=0.33$ ), increasing to 10.6/month ( $p<0.001$ ) during the pandemic and demonstrating an upward trend coinciding with onset of lockdown measures ( $\beta$ coeff=5.95,  $p<0.001$ ). At the time of initial assessment, more youth presented with medical instability and increased illness severity. Hospitalizations increased from an average of 2.2/month to 6.3/month ( $\beta$ coeff -0.008 vs. 3.23,  $p<0.0001$ ). Average heart rate also decreased from 58.6 bpm (SD 16.6) pre-pandemic to 53.3 bpm (SD 16.3),  $p<0.008$ .

**Conclusions:** With this study, we found a significant increase in both new diagnoses and admissions for medical instability for AN and AAN among youth at our institution during the Covid-19 pandemic. Our study contributes to the growing body of global evidence tracking the unanticipated surge of eating disorder diagnoses and severity in already under-resourced health systems. It is unclear how long the effects of the pandemic may last. Further research is required to better understand the illness trajectory and treatment outcomes of pandemic-triggered EDs in adolescents.

**Sources of Support:** None.

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#### FACTORS ASSOCIATED WITH DISORDERED EATING BEHAVIOR AMONG ADOLESCENT GIRLS: SCREENING AND EDUCATION

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**Purpose:** Adolescent behaviors contribute to adult chronic health conditions such as cardiovascular disease and cancer, and contribute to adolescent mortality from unintentional injuries, substance use, and mental health struggles (Frech, 2012). Providing health education to adolescents about their actual and potential risky behaviors is fundamental to promoting health, preventing disease or injury, and motivating positive behavior change. Significant research regarding adolescent risk behaviors exists, but few studies focus specifically on disordered eating as a risk behavior (Kann, 2018; Yi et al., 2009). This paper examines the prevalence of disordered eating among adolescent girls and identifies associated characteristics and health behaviors to facilitate early detection and prevention efforts.

**Methods:** This survey and IRB approved research were conducted at a university medical center's adolescent clinic. Adolescents self-

reported on a multi-item questionnaire administered via electronic tablet as part of standard care. The instrument was a composite risk behavior survey adapted from the Rapid Assessment for Adolescent Preventive Services (RAAPS) (Yi, 2009) and Guidelines for Adolescent Preventive Health (AMA, 1994). Data were originally collected from 2016-2018. Responses were used during patient visits to guide conversations between patients and providers.

**Results:** In this sample of N=915 adolescent girls, n=57 (6.2%) reported engaging in disordered eating behavior in the past 12 months. Disordered eating in this sample was significantly associated ( $p<.001$ ) with not consistently wearing a helmet while biking, having tried an e-cigarette, being bullied in the past 30 days, and experiencing at least 1 ACE (e.g., physical violence or abuse). Disordered eating behavior was significantly associated with being African American ( $p=.005$ ). Disordered eating was significantly associated ( $\chi^2=4.29$ ,  $p=.038$ ) with being bullied in the past 30 days among African American girls; 26.7% of African American girls who had been bullied in the past 30 days reported engaging in disordered eating behavior, compared to the 9.3% of African American girls who had not been bullied. The relationship between being a bullying victim and disordered eating was shown to be significant across races (overall  $\chi^2=10.68$ ). However, this effect was more pronounced in African American girls, as there was a doubling of the effect for African Americans compared to Caucasians. The relationship between disordered eating and having an ACE was shown to be significant ( $\chi^2=17.48$ ,  $p<.001$ ) among Caucasian girls: 25.0% of Caucasian girls who had ever experienced an ACE reported engaging in disordered eating behavior compared to the 3.3% of Caucasian girls who never experienced an ACE.

**Conclusions:** Education and screening are critical to understanding adolescent behavior and to encouraging healthy behaviors that promote positive health outcomes later in life. Results indicate that screenings for a variety of behaviors and comprehensive educational programs are needed across the public health sector to prevent the development of disordered eating and identify adolescents who may be struggling with disordered eating. Further research is needed to identify the complex factors related to disordered eating at the individual and population levels so that more effective detection and prevention efforts can be implemented.

**Sources of Support:** This research was made possible by NCI grants CA192950 and CA051008.

#### RESEARCH POSTER PRESENTATION II: EATING DISORDER/LGBTQ

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#### DISORDERED EATING IN TRANSGENDER YOUTH: A COMPARISON TO POPULATION-BASED AND CLINICAL SAMPLES

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**Purpose:** Research suggests that transgender individuals are at heightened risk for gender-related body dissatisfaction and eating disorders (EDs). Eating disorders and gender-related body dissatisfaction often emerge and/or intensify during adolescence, due to the biological impacts of puberty in combination with other developmental and environmental influences that are prominent in

adolescence. Despite the developmental importance of adolescence, much of the research on eating disorder symptoms in transgender individuals has focused on adult samples or combined adolescents with young adults. Further, while some small studies of transgender youth utilize validated ED measures, there are no studies in transgender youth that incorporate comparison groups to ascertain degree of risk compared to population-based samples or youth with ED diagnoses. Thus, the purpose of this study was to use a validated ED measure to examine disordered eating in transgender youth compared to a population-based sample and patients with a clinically diagnosed eating disorder (ED).

**Methods:** Participants (ages 10–24 years) were a sample of patients (N = 19 transfeminine, 59 transmasculine, 14 nonbinary, 5 unknown gender identity) in a Midwestern pediatric gender clinic (N = 97), a control sample of cisgender males (N = 42) and cisgender females (N = 58) obtained from the Michigan State University Twin Registry, and a sample of cisgender males (N = 6) and cisgender females (N = 85) enrolled in a Midwestern eating disorders program. Eating disorder attitudes and behaviors were assessed using the Eating Disorder Examination Questionnaire (EDE-Q) and compared across groups utilizing a one-way ANOVA.

**Results:** For all subscales of the EDE-Q, scores were lowest in the cisgender male control sample, followed by the cisgender female control sample, followed by the transgender sample, with scores in the eating disorder clinical sample being the highest. The one-way ANOVA indicated significant differences between groups for all subscales of the EDE-Q. Games-Howell post-hoc tests indicated that transgender participants had significantly higher scores on several EDE-Q subscales compared to the population-based control sample. However, scores in transgender participants were lower than in the eating disorder sample for the restraint, eating concern, weight concern, and global scales of the EDE-Q ( $p < .001$ ), and approached being significantly lower for the shape concern subscale ( $p = .06$ ).

**Conclusions:** Preliminary evidence suggests that transgender youth report heightened ED cognitions compared to a control sample of youth in the general population, though scores are not as heightened as in cisgender individuals with clinical diagnoses of eating disorders. Findings underscore the importance of screening for ED symptoms in transgender youth and supports continued investigations of ED symptoms and potential unique treatment needs in this at-risk population.

**Sources of Support:** This study was supported by NIMH Grants R21MH070542 (PI: Nigg) and 1R03MH063851-01A1 (PI: Klump) and the Charles Woodson Children's Health Research Fund.

## RESEARCH POSTER PRESENTATION II: EATING DISORDER

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### CASE SERIES: EOSINOPHILIC ESOPHAGITIS PRESENTING AS AN EATING OR FEEDING DISORDER

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**Purpose:** Eosinophilic esophagitis (EoE) is a multifactorial allergic disease associated with chronic inflammation of the upper gastrointestinal tract. A variety of genetic, epigenetic, dietary, and environmental factors have been implicated in the pathophysiology of EoE, though the etiology is still not fully understood. Symptoms of EoE typically reflect esophageal dysmotility, and can be relatively

nonspecific in children of all ages. While younger children may present with abdominal pain, vomiting, coughing, regurgitation, poor weight gain or food refusal, older children and adolescents more commonly complain of dysphagia, dyspepsia, choking on foods (food impaction), slow eating, and weight loss. Up to 5 years may elapse between symptom onset and diagnosis, indicating a need for improved screening and detection. This care series highlights the similarities between EoE and an eating/feeding disorder, and discusses the symptoms that should prompt further investigation.

**Methods:** This presentation is a retrospective care series. All patients presented to the University of Rochester Pediatric Ambulatory Clinics in 2020.

**Results:** Patients 1–3 were presumed to have an eating disorder, and were subsequently diagnosed with EoE. Patient 4 had a history of previously diagnosed and inadequately treated EoE, but later was found to also have a longstanding eating disorder.

**Conclusions:** The symptomatology associated with EoE can overlap with that of an eating or feeding disorder. Therefore, the assessment of a patient for either EoE or an eating disorder should include questions about a variety of symptoms. Symptoms that should raise suspicion of EoE are indigestion, acute (vs chronic) weight loss, and dysphagia, including the inability to swallow pills, particularly in the presence of personal or family history of atopic disease. This case series illustrates that EoE can either present as an eating disorder or complicate the diagnosis and/or treatment of an eating disorder, making prompt diagnosis and treatment of EoE essential for successful management of both conditions.

**Sources of Support:** None.

## RESEARCH POSTER PRESENTATION II: EATING DISORDER/LGBTQ

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### EATING DISORDER OUTPATIENT CLINIC OUTCOMES AMONG AN LGBTQ-IDENTIFYING ADOLESCENT AND YOUNG ADULT SAMPLE

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**Purpose:** Recent literature suggests that adolescents and young adults (AYA) who identify as LGBTQ may be at unique risk for developing eating disordered (ED) behaviors. A quality improvement-related retrospective chart review of an Adolescent Medicine outpatient ED program explored outcomes, including in patients who identify as LGBTQ. The goal of articulating outcomes specifically in the LGBTQ population was to highlight features that may improve early identification and management of ED in gender minority AYA in the ED program but also in the broader community.

**Methods:** The IRB-approved retrospective chart review was conducted on a randomly selected population of active AYA patients in a medical ED clinic. Data collected included demographics, several items related to sexual identity and sexuality, types of ED behavior, co-morbid psychiatric illness, and past ED treatment setting(s). For each chart reviewed, data was collected from visits conducted 6 months apart for up to 36 months after the initial visit. Information was collected, de-identified, and stored in REDCap. A descriptive analysis was conducted.

**Results:** Sixty-eight (11%) of the total 623 active patient charts were reviewed. Among participants, 13 (19%) identified as LGBTQ. Of these, 8 identified as female, 2 identified as male, and 3 identified as non-