Atypical Anorexia: Difficult to See, Critical to Catch

Sara Gould, PhD CEDS ABPP
Assoc. Professor of Pediatrics, UMKC SoM
Director, Children’s Mercy, Kansas City, Eating Disorders Center

Disclosures
• I have the following to disclose:
  • Speakers Bureau - None
  • Consultant - None
  • Research – Smart Technology for Anorexia Recovery (NIH)
  • Stock - No major holdings

Outline
• Definition of Atypical Anorexia Nervosa (AAN)
• Prevalence
• AAN vs. “traditional” Anorexia Nervosa (AN)
• Screening Components
• Prevention
• Resources
Definition of AAN- Start with AN Criteria

- Restriction of energy intake relative to requirements
  - Significantly low body weight in the context of age, sex, developmental trajectory, and physical health
- Intense fear of gaining weight or becoming fat, even though underweight
- Disturbance in the way weight/shape is experienced, overevaluation of weight/shape, or denial of the seriousness of current low weight

Definition of AAN

- Restriction of energy intake relative to requirements
  - Significantly low body weight in the context of age, sex, developmental trajectory, and physical health
- Intense fear of gaining weight or becoming fat, even though underweight
- Disturbance in the way weight/shape is experienced, overevaluation of weight/shape, or denial of the seriousness of current low weight
- Experienced significant weight loss, despite not being underweight

Weight-for-age, 2 - 20 years, Girls
Prevalence

- Point prevalence ranges from 0.15-13.0%, lifetime 0.2-4.9% (Harrop et al., 2022)
- University sample: 20% had risk of ED; 19.4% of women had risk for AAN (sample 2/3 women) (Castelao-Naval et al., 2018)
- AAN made up at least 1/3 of those hospitalized in inpatient ED programs pre-COVID in 28% of 58 reviewed studies (Harrop et al., 2022)
- New outpatient AAN diagnoses increased by 60% in COVID (Agostino et al., 2021)
- Admissions of AAN/AN increased by 77-100% during COVID (Agostino et al., 2021; Otto et al., 2021)

Prevalence- Comparing AAN to AN

- Slightly > half of admissions were AAN over AN during COVID (Agostino et al., 2021)
- AN and AAN have similar age of onset (Shachar-Lavie et al., 2022)
- Of AAN, more males than females and more non-White than White
  - Meta-analysis (Walsh et al., 2022)

We’re missing it

- Population-based studies (N=7): AAN more common than AN
- Clinical studies (N=4): AN more common than AAN
- Sweden and Australia find higher rates of AAN than AN in clinical samples, while US does not
- Epidemiological US studies did find higher rates of AAN than AN (Harrop et al., 2022)

- Premorbid overweight/obesity is a risk factor for delayed diagnosis (Kennedy et al., 2017; Matthews et al., 2022)
So what?

We know obesity is a big problem. Isn’t weight loss good?

AN vs. AAN: Physical Complications

- AAN > AN: Weight loss and duration of loss (Sawyer et al., 2016)
- AAN =/> AN: bradycardia and orthostasis (Garon et al., 2019; Meierer et al., 2018; Sawyer et al., 2016)
- AAN < AN: hypotension (Garber et al., 2019)
- AAN =/< AN: amenorrhea (Garber et al., 2019; review, Walsh et al., 2022)
- AAN = AN: impaired renal function (Downey et al., 2022)
- AAN = AN: low serum phosphorus on admission (Garber et al., 2019)

AN Vs. AAN: Psychological Factors

- AAN > AN: distress about eating and body image (Sawyer et al., 2016)
- AAN = AN: drive for thinness (Sawyer et al., 2016)
- AAN > AN: dieting behaviors (Sawyer et al., 2016)
- AAN > AN: Overall higher ED psychopathology - meta-analysis (Walsh et al., 2022)
- AAN = AN: non-ED psychopathology - meta-analysis (Walsh et al., 2022)
Males are More Likely to...

• Have AAN than AN
• Be diagnosed in urgent medical visits
• Have a history of higher weight

Take-Away: Different name for the same condition

• “Adolescents admitted to the hospital with AAN or AN who experienced a greater amount, rate, or duration of weight loss had significantly worse medical and nutritional status independent of admission weight” (Garber et al., 2019, pg. 5)

• “A finding that there were few differences between atypical AN and AN would suggest that atypical AN might be considered a subtype of AN.” (review/meta-analysis; Walsh et al., 2022. pg. 17)

Outcomes for AAN

• Disagreement regarding Target Body Weight (TBW)
  • Previously overweight needed to return to a higher weight for menses to resume (Seetharaman et al., 2017)
  • May need to reach higher than 50th BMI for age (Seetharaman et al., 2017)
• Even though higher % of AAN reached TBW during admission than AN, readmission rates were equal (Shachar-Lavie et al., 2022)
• All other physical indicators of resolution of malnutrition should be used to determine TBW as treatment progresses (Vo & Golden, 2022)
Eating disorder Screen for Primary care (ESP)

- Are you satisfied with your eating patterns?
- Do you ever eat in secret?
- Does your weight affect the way you feel about yourself?
- Have any members of your family suffered from an eating disorder?
- Do you currently suffer with or have you suffered in the past with an eating disorder?

Screening Components (for any ED)

- Change in weight trajectory
- 24-hour diet recall
- Amount and frequency of exercise (rest days?)
- Ever concerned about your weight? Have you done anything to try to change it?
- Higher weight patients - experiences with weight bias and weight-based teasing/bullying
- Physical screening: vitals, orthostatics, nutrition-focused exam

Strategies for Prevention of Eating Disorders

- Avoid comments on body shape/shape/appearance
- Avoid praising weight loss (assess reason/method)
- Recommend family meals
- Focus on health behaviors rather than weight
  - Balanced diet/plate model
  - Following hunger/fullness cues
  - Movement
  - Emotion regulation skills
  - Self-worth outside of weight/shape/appearance
Resources

- NEDA: www.nationaleatingdisorders.org
- Academy for Eating Disorders: www.aed.org
- "Eating Disorders: A Guide to Medical Care" under Publications
- STAR Grant
  - star@ku.edu
  - mHealth intervention for ages 12-21 with AN/AAN entering outpatient from more intensive services

CMKC Eating Disorders Center

- www.childrensmercy.org/edc
- General information
- Referral Process
- Parent intake
- Caregiver video series
- Ages 10-16.5 with presentations similar to AN/AAN/Bulimia Nervosa
- Frequent appointments mean within 1 hour drive best
- Call 913.696.5070 for resources in your community or online (e.g., research)

References


