The Interesting Relationship Between ADHD, Eating Disorders and Body Image

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Binge Eating Disorder

• Recurrent episodes of binge eating characterized by both of the following:
  – Eating, in a discrete period of time (e.g. within any 2-hour period), an amount of food that is definitely larger than most people would eat during a similar period of time and under similar circumstances.
  – A sense of lack of control over eating during the episode (e.g. a feeling that one cannot stop eating or control what or how much one is eating).

• Episodes are associated with three or more of the following:
  – eating much more rapidly than normal
  – eating until feeling uncomfortably full
  – eating large amounts of food when not feeling physically hungry
  – eating alone because of feeling embarrassed by how much one is eating
  – feeling disgusted with oneself, depressed or very guilty afterward
  – Marked distress regarding binge eating is present
  – Binge eating occurs, on average, at least once a week for three months
Bulimia Nervosa

- Recurrent episodes of binge eating

- Recurrent inappropriate compensatory behavior in order to prevent weight gain, such as self-induced vomiting, misuse of laxatives, diuretics, or other medications, fasting, or excessive exercise.

- The binge eating and inappropriate compensatory behaviors both occur, on average, at least once a week for three months.

- Self-evaluation is unduly influenced by body shape and weight.
Anorexia Nervosa

- Persistent restriction of energy intake leading to significantly low body weight (in context of what is minimally expected for age, sex, developmental trajectory, and physical health)

- Either an intense fear of gaining weight or of becoming fat, or persistent behavior that interferes with weight gain (even though significantly low weight).

- Disturbance in the way one's body weight or shape is experienced, undue influence of body shape and weight on self-evaluation, or persistent lack of recognition of the seriousness of the current low body weight.

- Restricting or Binge Eating/Purging Type
Avoidant/Restrictive Food Intake Disorder (ARFID)

• An Eating or Feeding disturbance as manifested by persistent failure to meet appropriate nutritional and/or energy needs associated with one (or more) of the following:

  • Significant loss of weight (or failure to achieve expected weight gain or faltering growth in children).

  • Significant nutritional deficiency

  • Dependence on enteral feeding or oral nutritional supplements

  • Marked interference with psychosocial functioning
Eating Disorders

• 30 million people suffer from eating disorders

• 20 million women, 10 million males

• 15%-20% mortality rate (suicide, medical complications)

• Various causes (Genetic, biological, social-cultural, personality, environment, trauma, comorbid disorders)

• Only 10-15% of women with eating disorders seek treatment

• Even smaller % of males with eating disorders seek treatment

• Recovery is possible
Eating Disorders: Medical Consequences

- Dental problems
- Hair loss
- Dysregulated metabolism
- Sleep Problems
- Temperature Dysregulation
- Problems with concentration
- Increases all ADHD symptoms

- Cardiovascular
- Gastrointestinal
- Neurological
- Endocrine
- Kidney Failure
ADHD and Eating

• Hartman et al (2012):
  – Lab Experiment to assess mood, impulsivity and loss of control eating in 10-14 year olds.
  – Mood was reported pre and post eating
  – Liking of food reported

Results:
  – ADHD group ate more.
  – NOT influenced by negative mood, level of hunger or liking of food

• Ptacek et al (2014):
  – ADHD had more disruptive eating habits
  – Ate less nutritious diet
  – Significantly higher sugar intake (especially with beverages)
ADHD and Obesity

Altfas (2002)

- Bariatric patients (N= 215)
- Found 27% had ADD (all inattentive type)
- For BMI ≥40: 43% had ADD

- Mean weight loss:
  ADD/OBESE patients = 2.6 BMI
  NON-ADD/OBESE = 4.0 BMI  (p<.002)

- Mean weight loss For BMI>40:
  ADD/OBESE= 2.9 BMI
  NON-ADD/OBESE = 7.0 BMI  (p<.004)

- ADD patients had more treatment visits with longer duration
ADHD and Obesity

Agrant-Meged et al. (2005)

- 13 boys and 13 girls in obesity clinic assessed for ADHD
- Mean age 13.04
- All were morbidly obese
- Did not meet criteria for any DSM-IV Disorder
- 58% were found to have ADHD, significantly higher (p<.0001) than what is found in general population (10%)
- Of children with ADHD, only 40% diagnosed before the study
ADHD and Obesity

Holtkamp et al. (2004)

• Hypothesis: Hyperactivity protects children from obesity

• Opposite was found:
  BMI scores for 97 ADHD male patients were significantly higher than reference population (p=0.004).

• BMI > 90th percentile: ADD significantly more common than reference group (p<.001).
ADHD and Eating Disorders

  - ADHD girls are 3.6 times more likely to have an eating disorder (Bulimia Nervosa and BED)

- University of Virginia and Univ. Of California (2008)
  - Bulimia more common in ADHD adolescent girls than non-ADHD

  - 11% of ADHD women vs 1% of non-ADHD reported bulimia.

- Seitz et al (2013)
  - 21% treated for Bulimia had ADHD
Studies of ADHD and Eating Disorders

- Svedlund et al (2017)
  - 31% of 1165 E.D. patients above ADHD screening cut-off

  - ADHD three-fold risk of eating disorders
  - Eating Disorder more severe when ADHD present

- Curtin et al (2013)
  - ADHD: 3-6 times greater risk for developing Eating Disorders

- No current studies that focus on Anorexia Nervosa and ADHD
How can having ADHD predispose someone to develop an eating disorder?
Biological/Genetic Factors

• Reward deficiency syndrome: Insufficient dopamine-mediated “natural” reward produce need for unnatural rewards (food, drugs)

• ADHD brain craving dopamine and lacks proper brakes

• ADHD brains less GABA (uninhibited)

• Binge eating/purging also common after other dopamine-related activity (sex, fun event etc) as way of medicating dopamine drop and keeping the dopamine flowing

• Dopamine receptors could overlap with both obesity/binge eating (DRD2, DRD4) and ADD (DRD4)

• DRD4: novelty seeking
Biological/Genetic Factors

• Zametkin et al (1993)
  – ADHD brain slower to absorb glucose than non-ADHD
  – Lowest in prefrontal brain
  – Executive controls are demanding energy by any means necessary
  – Leads to higher sugar and simple carb consumption
    (Kale doesn’t cut it!)

• Serotonin in carbs, sugars, boost well-being.
  – ADHD avoidant of negative affect
Cognitive Factors

• Lack of mindfulness and attention (interoceptive awareness)

• Executive Function Deficits

• Decision-making can be difficult, or impulsive.

• “Procrastin-eating”

• Cognitively overwhelmed by all the contradictory information about food and diet. Impairs ability to make good decisions.

• Food can be means of gaining “executive fuel”

• ADHD individuals can be obsessive-compulsive and all or nothing in thinking
Behavioral Factors

• Impulsivity

• Poor self regulators
  * Underestimate the amount of calories eaten

• Poor sleep habits

• Skipped meals leading to overeat on carbs, fats, sugars
Behavioral Factors

- In hyperfocus can go hours without eating, then hit with wall of hunger

- More likely to eat while doing other things leading to poor regulation of food intake (snacking and grazing throughout the day)

- Restriction can be overcompensation for normative impulsivity
Emotional Factors

• Boredom leads to eating as a form of self-stimulation. (Can mimic depression)
  “It’s either a cigarette, my nails, or food”.

• Anger, sadness, stress relief

• Coping with Depression or Anxiety

• Food as reward, pleasure (not necessarily as a result of dysphoria)

• Relief from racing thoughts and distraction
Emotional Factors

• Sensory aspects of food can be soothing or offensive

• ADD very outcome driven, instant gratification, impatient, needs results quick, impulsive

• Food preoccupation incredibly reinforcing as a grounding mechanism

• Purging: Euphoric and additive stimulation
Self Esteem, Control and Shame

- Individuals with ADHD often struggle with self esteem issues due to failures, impulsive acts, and unrealized intentions

- Negative Body Image can result as means of coping or result of weight loss or gain

- Food becomes a way to cope. Easily accessible, comforting

- Purging: Control, Act of Undoing

- “I can eat because I’ve been good today.”
Self Esteem, Control and Shame

- Food deprivation is an ultimate form of self-punishment

- Focus on weight is concrete for self esteem

- Eating disorders are often about control, which many with ADHD feel they lack.
  
  “If I control my weight, I control my life.”
  “Controlling weight is one thing I can succeed at.”

- ADHD need constant feedback from their environment. A number on a scale and body checking provides that.

- Compensation for poor sense of self
Treatment

• Only 1 in 10 people with eating disorders receives treatment
• Address ADHD and Eating Disorder together
• Understand how ADHD impacts and is impacted by the ED

• Destigmatize ADHD (especially for women)
• Destigmatize Eating Disorders (especially for men)

• Cognitive-Behavioral Therapy (therapist as “creative coach”)
• Dialectical Behavior Therapy
• Psychotherapy
• Nutritional Therapy

• Psychopharmacological Treatment
Psychopharmacological Treatment

• Lisdexamfetamine (Vyvanse) first FDA approved medication for Binge Eating Disorder (and only second medication approved for an eating disorder)

• Research studies show stimulant medication can help (sometimes dramatically) in those with ADHD/Bulimia

• In addition, their weight remained in a healthy weight range, despite appetite suppression

• Many psychiatrists reluctant to prescribe stimulants to eating disorder patients

• No medication specifically for Anorexia Nervosa
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