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1. Participants will be muted upon entry and videos turned off

2. For technical assistance, please use the chatbox

3. You will receive an email in approximately 3 months requesting feedback/impact on this presentation

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Eating Disorders in Males

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Goals/Objectives

- Describe rates of eating disorders in males
- Compare clinical presentations and symptom pictures of eating disorders for males and females
- Discuss recommendations for identifying, assessing, and treating males with eating disorders

Overview

- Rates of eating disorders
- Clinical presentation and symptoms
- Body ideals, body dissatisfaction
- Muscularity
- Sexual orientation, athletes, age, race/ethnicity
- Assessment
- Treatment
- Barriers to help-seeking
- Future directions

Who develops an eating disorder?

- Stereotype: White, upper/middle class, young female
- Historically, males with eating disorders considered rare
- Implications: diagnostic conceptualization, assessment, treatment

Rates of eating disorders

- Late 1970s & 1980s – reports of males in specialist eating disorder clinics
- 1990s – more systematic research on males with eating disorders
  - 5-10% of cases in specialist eating disorder clinics were males → 10% “rule of thumb”

Rates of eating disorders

More recently…

- Epidemiological data
  - for anorexia nervosa (AN) & bulimia nervosa (BN): 25% are males
  - for eating disorder behaviors: 33%
  - lifetime prevalence for males: OSFED/EDNOS (highest), BED, BN, AN (lowest)
  - comparable levels of distress & impairment for males & females

Anorexia Nervosa (AN)

- restricted dietary intake leading to significantly low weight for age & height
- intense fear of gaining weight or becoming fat (or behavior interfering with weight gain despite low weight)
- disturbed body perception; self-evaluation overly due to weight/shape; OR persistent lack of recognition of seriousness of low weight

(Diagnostic and Statistical Manual of Mental Disorders; DSM-5)

AN: Clinical presentation for males

- Different motivation for dietary restraint
  - leanness (enhance visibility of musculature) more than thinness per se
- Lower levels of weight concern
- Similar levels of shape concern but…
  - broad shoulders, narrow hips/waist
  - six pack more than a flat stomach
- Excessive exercise

Bulimia Nervosa (BN)

- recurrent episodes of binge eating & inappropriate compensatory behaviors intended to prevent weight gain
- on avg., at least 1x/wk for 3 months
- self-evaluation overly due to weight/shape

(DSM-5)

BN: Clinical presentation for males

- Size thresholds for binges – different perceptions of “large amount”
- Types of compensatory behaviors
  - vomiting & laxative use less likely
  - excessive exercise more likely

Binge eating disorder (BED)

- recurrent episodes of binge eating
- on avg., at least 1x/wk for 3 months
- absence of regular inappropriate compensatory behaviors
- additional sx – e.g., eating large amounts when not hungry; feeling disgusted with self, depressed, guilty after binge

(DSM-5)

Other clinical presentation findings

Compared to females, males with eating disorders…

- greater psychiatric comorbidity
- later age of onset
- history of being overweight/obese
- experience of weight-related teasing

Medical complications

- Cardiovascular – e.g., bradycardia
- Gastrointestinal → bloating, constipation
- Decreased bone density
- Mortality for AN

“I don't think I ever took my shirt off in a pool until I was in my mid 30s even in front of family and friends. Probably would have happened sooner if my childhood insecurities weren't exacerbated by years of public mockery about my body by press and interviewers.” actor Jonah Hill (Feb 2021)

“I know you mean well but I kindly ask that you not comment on my body… Good or bad, I want to politely let you know it’s not helpful and doesn’t feel good.” (Jonah Hill, Oct 2021)

Body ideals, body dissatisfaction

- Body dissatisfaction – present in men and a predictor of disordered eating
  - weight
  - muscularity
- Male body ideal = high in muscularity, low in body fat; mesomorph (broad shoulders, narrow waist/hips)
- This lean, muscular ideal evident in:
  - male models
  - sports figure
  - action figures
  - video game characters

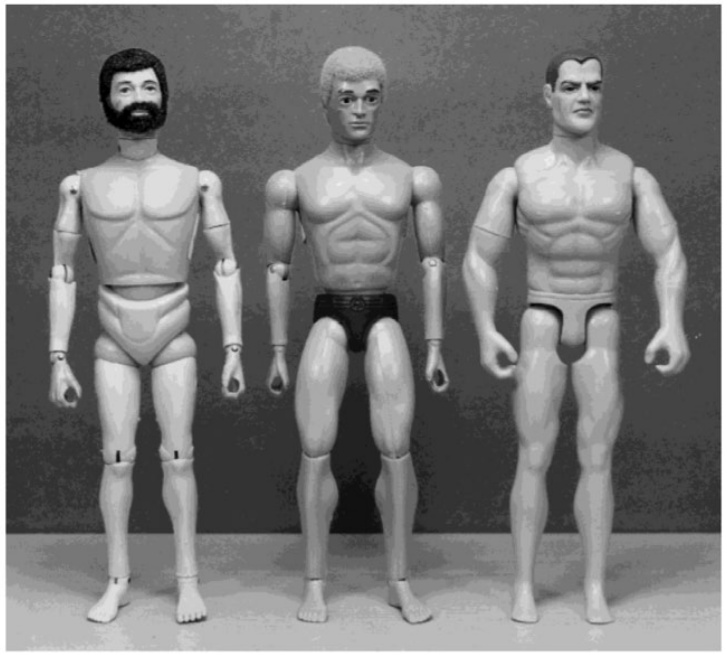


Figure 1. GI Joe Land Adventurer with original body in use since 1964 (left); GI Joe Land Adventurer with lifelike body, 1975 (middle); and GI Joe Hall of Fame Soldier, 1994 (right) (Hasbro).

Figure 3: Luke Skywalker and Hans Solo, 1978 (left); Luke Skywalker and Hans Solo, 1998 (right) (Kenner).

Pope et al. (1999)

Body ideals, body dissatisfaction

- Appearance ideals transmitted through social agents:
  - family, peers, romantic partners, media
- Perceived messages from parents & peers predicted use of weight loss and muscle-building strategies in adolescent males
- Brief exposure to male body ideal in media → body dissatisfaction and negative affect
- Perceived pressures
  - media pressures most consistently associated with body dissatisfaction for males (beyond BMI, athletic ideal internalization, weight-related teasing)
  - pressures contribute to internalization of body ideals, appearance comparison
- Increased risk for body dissatisfaction & disordered eating from sociocultural messages for males who:
  - strongly identify with media figures
  - have low self-esteem, negative affect
- Increasingly unattainable ideal & perceived pressures & yet males are not "supposed to" care too much about appearance

Muscularity

- Desire for greater muscularity
  - 90% of college-age American men
- Early age preferences for muscular bodies
- Engagement in behaviors driven by muscularity goals
  - > 90% of adolescent males exercise mainly to increase musculature
  - > 2/3 of adolescent males alter their diet for greater muscularity
  - up to 10% of adolescent males use muscle-enhancing substances (e.g., anabolic steroids)

Muscularity

- Muscularity-oriented disordered eating (MODE)
  - drive for muscularity (increase muscle mass): caloric surplus, focus on protein consumption, often rigid rules

  AND

  - drive for leanness (reduce body adiposity): caloric deficit, dietary restriction
  - "bulk and cut" cycle – alternating eating patterns
  - associated with comparable levels of distress & dysfunction as weight-control behaviors in women

Muscularity

- Muscularity-oriented disordered eating (MODE)
  - Sample behaviors in MODE
    - overconsumption of protein-based foods
    - restriction of fats and carbohydrates
    - rigid tracking of macronutrients
    - frequent eating (e.g., every 2-3 hours)
    - “cheat meals”
    - blending ingredients for increased caloric intake
    - rigid exercise regimens
    - use of protein supplements
    - use of steroids

Muscularity

- Pro-muscularity web content
  - advocates for behaviors/attitudes related to the extreme pursuit of muscularity
- Common themes:
  - rigid dietary rules
    - amount of protein (goal body weight in pounds x 1.5), keep a journal, stick to your diet plan
  - rigid exercise rules
    - “never miss a scheduled workout, come hell or high water”
  - messaging of broad benefits of muscularity
    - “when in doubt, just get really, really strong. It tends to cure most problems in training and in life”

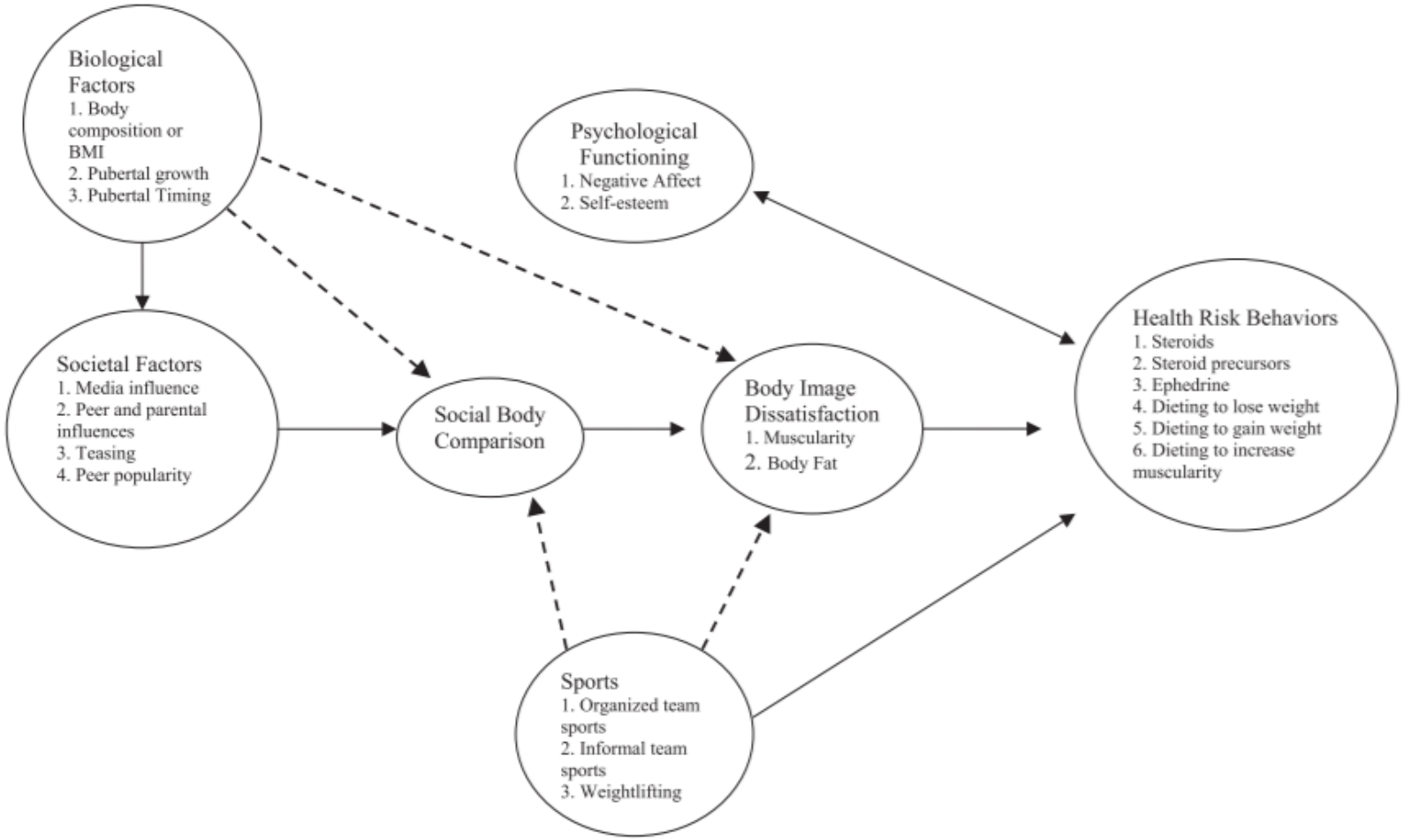


Fig. 1. A model of potential relations among factors that lead to body change strategies in males. The model is meant as a heuristic, with the present directional and mediation influences based on the somewhat limited work in the area. Solid lines reflect hypothesized relations with stronger support than the arrows that are broken.

Cafri et al. (2005)

Muscle Dysmorphia

- Muscle dysmorphia = core belief that one is not muscular enough & pathological pursuit of muscularity
- Subtype of Body Dysmorphic Disorder
- Better categorized as an eating disorder?
  - presence of MODE
  - comparable dietary restraint, shape concern, weight concern as men with AN

Sexual orientation

- Gay men more likely than heterosexual men to have greater
  - body dissatisfaction
  - investment in appearance
  - appearance-related pressures
- Gay & bisexual men have higher rates of:
  - disordered eating
  - BN, subclinical eating disorders

Athletes

- Higher risk sports for eating disorders:
  - low weight/body fat is perceived as advantageous
  - need to “make weight” to compete
  - aesthetic sports
- Examples: wrestling, rowing, horseracing, gymnastics, swimming, diving, running
- Gain/lose weight for perceived optimal athletic performance or aesthetics
  - overexercising, fasting, purging, steroids
- Roles of coaches, athletic trainers

Age - Youth

- Prospectively tracked weight/shape concern & other eating disorder symptoms
  - large, general population cohort of adolescent & young adult males
- Most common transition: addition of muscularity concerns
- Onset & stability of product use (e.g., creatinine, anabolic steroids)

Age - Midlife

- Eating disorders/body dissatisfaction/ disordered eating continue in middle-age
  - also cases of onset in midlife
- Role of aging
  - comparisons with youth, with younger self → behaviors to try to counter-act aging

Race/ethnicity

- Weight-related concerns/behaviors more prevalent among men of color than White men
- Pooled data from nationally represented datasets (Latino, Asian, African American, non-Latino White):
  - comparable prevalence rates for eating disorders except Latino men > non-Latino White men: BN, binge eating
  - comparable functional impairment except elevated for African American men
  - lower prevalence of using mental health services for men of color with eating disorders

Assessment

- Most often-used eating disorder measures:
  - focus on body parts that are less relevant to males (hips, buttocks)
  - focus on losing weight (not gaining)
  - lack questions about drive for muscularity
  - lack questions about steroids
- Current assessments miss some men!
  - and thus can contribute to the misconception that men don't have eating disorders
- Need to assess
  - muscularity and body fat concerns; excessive exercise; use of supplements, steroids

Drive for Muscularity Scale (DMS; McCreary et al., 2004)

1. I wish I were more muscular.
2. I lift weights to build more muscle.
3. I use protein or energy supplements.
4. I drink weight gain or protein shakes.
5. I try to consume as many calories as I can in a day.
6. I feel guilty if I miss a weight-training session.
7. I think I would feel more confident if I had more muscle mass.
8. Other people think I work out with weights too often.
9. I think I would look better if I gained 10 pounds in bulk.
10. I think about taking anabolic steroids.
11. I think I would feel stronger if I gained a little more muscle mass.
12. I think that my weight-training schedule interferes with other aspects of my life.
13. I think that my arms are not muscular enough.
14. I think that my chest is not muscular enough.
15. I think that my legs are not muscular enough.

Muscularity-Oriented Eating Test (MOET; Murray et al., 2019)

1. I have recorded the macro-nutritional values of everything that I ate.
2. I have used meal replacement supplements when I felt full.
3. What I ate has influenced how I think about myself as a person.
4. There are definite foods I have avoided eating due to worry about how they might affect my shape or weight.
5. I have felt less anxious about eating out if I knew the macro-nutritional content of the food at the restaurant.
6. I have taken my own food out with me to social events in case the food on offer is inconsistent with my diet plan.
7. I cannot achieve my body ideal unless I exert complete control over everything I eat.
8. I have pre-cooked several meals in advance to ensure that I do not deviate from my diet plan.
9. I have continued eating despite feeling full, in attempting to influence my muscularity.
10. I have felt anxious when I run out of protein-based supplements.
11. I have been deliberately trying to limit the overall volume of some foods, so that my muscles look more defined.
12. If I broke any of my food rules, I attempted to make up for it at my next meal.
13. I have felt anxious about others knowing the rules I have around what I eat.
14. Other people do not seem to understand how important my food choices are to me.
15. Ensuring proper adherence to my dietary ideals is more important to me than adhering to a work schedule.

Eating for Muscularity Scale (Cooper et al., 2020)

1. I gave a lot of time and thought to becoming more muscular (P)	0	1	2	3	4	5	6
2. I must eat mostly protein-based foods (e.g. red meat, fish, chicken, etc.) (DG)	0	1	2	3	4	5	6
3. I have eaten a low fat diet (DL)	0	1	2	3	4	5	6
4. I felt forced to forced to stick to my diet regime even when I was full (DR)	0	1	2	3	4	5	6
5. I have attempted to follow definite rules about my eating (EA)	0	1	2	3	4	5	6
6. I have given up important social events to maintain my diet schedule (FI)	0	1	2	3	4	5	6
7. I have used dieting methods that I know are unhealthy (HR)	0	1	2	3	4	5	6
8. I have restricted my carbohydrate intake when I missed an exercise session (CE)	0	1	2	3	4	5	6
9. I was uncomfortable if I was not able to prepare my meals and snacks in advance (NA)	0	1	2	3	4	5	6
10. Thinking about increasing my muscularity made it very difficult for me to concentrate on things I am interested in (P)	0	1	2	3	4	5	6
11. I have alternated between 'bulking' and 'cutting' or 'shredding' cycles (DG)	0	1	2	3	4	5	6
12. I have eaten a low carbohydrate diet (DL)	0	1	2	3	4	5	6

Treatment

- Treatment outcome data
  - Response to inpatient treatment for AN
    - no gender differences
  - Long-term outcomes (6-8 years post-treatment) – similarly remission rates:
    - AN: remission rates for males (40%) & females (41%)
    - BN: remission rates for males (44%) & females (50%)
- Pattern of findings: generally similar outcomes for males, females
  - caveat: minimal research

Treatment

- Gender-specific treatment?
- Themes from a qualitative study:
  - person-centered treatment rather than gender-centered
  - problems with treatment environment – female-dominated setting (“odd one out”)
  - adaptions, not fundamental change
    - treatment materials – integration of male experience, not separate section
    - treatment groups – mixed; male-only a good option
    - male clinicians – mixed
- General recommendation: “standard” approaches + addressing male-specific issues + increasing inclusivity of treatment environment

Treatment

- Designated track for men in eating disorders unit of a hospital
  - address stigma, isolation
  - normalize male's unique experiences
  - also participate in broader group-based programming
- Increase in referrals
- Increase in engagement in treatment
- Unknown: outcomes, satisfaction

Treatment

- Tackling compulsive exercise
  - compuLsive Exercise Activity theraPy (LEAP)
  - overarching aim: promote healthy exercise
  - psychoed on the maintenance of compulsive exercise; challenging maladaptive beliefs about exercise; support adaptive coping strategies; prevent relapse

- Tackling comorbidity with substance use disorders
  - patients with ED & SUD – greater emotion regulation difficulties
  - treatment implications: target emotion dysregulation; apply integrated, transdiagnostic treatment (e.g., dialectical behavior therapy (DBT))

Recovery

- Themes from qualitative research:
  - acceptance of body appearance
  - healthy relationship with food (not dominating their thoughts)
- Preliminary support for a comprehensive definition of recovery for men
  - recovery defined along physical, behavioral, & cognitive dimensions
  - body appreciation, intuitive eating
  - excessive exercise?

- **Case study:** 15 yo Caucasian male with premorbid obesity & Atypical AN (C1)
  - Presented at urgent care with nausea, stomach ache
    - Hospitalized for medical instability (heart rate 41 bpm)
  - Past year: lost 42% of BMI (dietary restriction – 800 cals/day & excessive exercise)
    - Prior BMI = 43.5, admitting BMI = 21.4 (66th %)
  - Diagnosis: Atypical AN
    - No diagnosis until medical complications
  - Motivation for weight loss: weight-related teasing, recommendation from PCP
  - Parents obese – psychoeducation: consequences of weight talk and dieting, even if well-intentioned
  - Recommendations to support healthy weight loss:
    - Comprehensive behavioral intervention
    - Frequent follow-up (PCP, dietitian)

Matthews et al. (2019)

- **Case study:** 14 yo Caucasian male with AN (David)
  - Sustained weight loss over 4 months – drive for weight loss, fear of weight gain, dietary restriction, compulsive exercise; 57th percentile weight → 19th % one year later; diagnosis of AN
  - Hospitalized for medical instability (bradycardia, electrolyte imbalance)
  - Family-based treatment (FBT) – decreased restriction, no weight-focused exercise, desire to gain weight, 55th %
  - 6 months post-FBT: 78th % weight; significant body distress: muscularity, drive to gain weight; rigid protein-based diet; muscle-building exercise regimen
    - "If I absolutely needed to gain weight, then I thought to myself that it should be all muscle"
    - Referral for muscularity-oriented disordered eating
  - Drive for thinness replaced with drive for muscularity
    - Parents & therapist viewed as recovery-oriented, relieved he was gaining weight
    - Be aware of potential transition

Murray et al. (2017)

- **Case study:** 16 yo male with muscularity-oriented disordered eating (Johnny)
  - Wrestler – encouraged by coach to lose weight
  - Compliments about lean, muscular appearance
  - Focused more on muscularity
    - <2000 cals/day but focus on protein, weighed & charted food, stood at home (fear of losing muscle tone in legs)
  - Annual physical – 75th percentile weight → 30th %, referral to eating disorder specialist
  - Hospitalized for medical instability (heart rate 45 bpm), dx of OSFED
  - Medical & nutritional counseling → 75th percentile; return to wrestling, but at a higher weight
  - Eating disorder behaviors viewed by coach, peers, parents: goal-oriented, harmless

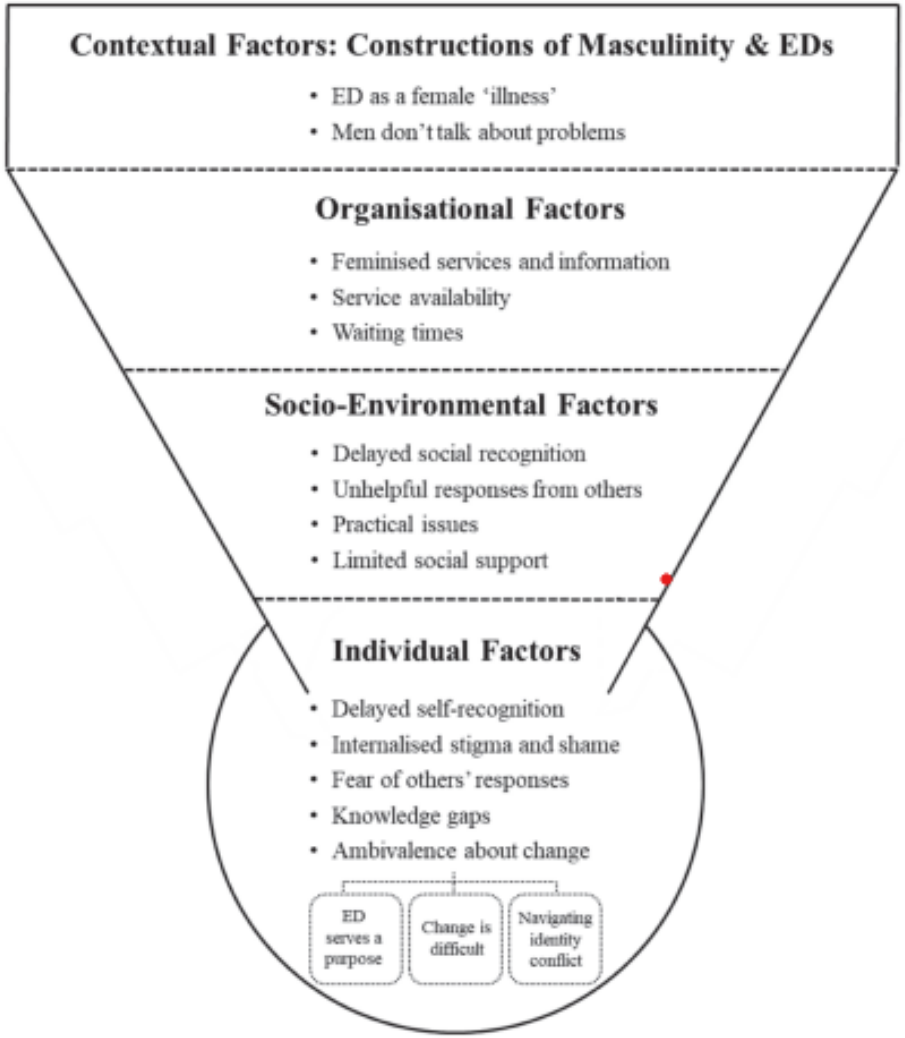
Murray et al. (2018)

- **Case study:** 15 yo male of European descent with muscle dysmorphia (Johnny 2)
  - Report from boarding school: “an increasing obsession with food and exercise”
    - Muscularity-oriented disordered eating
    - Weight lifting & cardio
  - Effectiveness of family-based treatment (FBT)
    - Temporary parental control over home & school meals; limits on exercise
    - Gradual return of ownership of food choices, exercise
    - Addressing adolescent developmental challenges
    - Approach to motivating parents

Murray & Griffiths (2015)

Figure 3

A Conceptual Model Depicting Male Barriers to Help-Seeking for EDs



Bomben et al. (2021)

Barriers to Help-Seeking

Individual factors

- Delayed self-recognition
  - construction of eating disorders as female
    - "I didn't know men could get eating disorders"
  - don't recognize behaviors as problematic
    - "I thought I was trying to be healthy"
- Shame, internalized stigma
  - compounded for males

Barriers to Help-Seeking

<u>Socio-environmental factors</u>

- Delayed social recognition
  - friends, family, coaches
  - health care professionals
  - compounded by ignorance of gender-nuanced presentations

Barriers to Help-Seeking

Contextual factors: Construction of masculinity

- Expected of men
  - self-reliance
  - resiliency
- Not expected of men
  - discuss emotions, concerns
  - reach out for help
  - have an eating disorder
- Reframe help-seeking as a way to be responsible (for self-care) and strength

Future directions

- Transgender males
- More research on patterns of disordered eating oriented toward muscularity (rather than thinness)
  - including more inclusive assessments
- Inclusion of males in eating disorder research
- Increased awareness of health care professionals
- Myth busting, gender-nuanced psychoed → reduce stigma, isolation
- Cultural change – allowance for male vulnerability

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Videos & Other Resources

Males with Eating Disorders Share Their Stories (Rogers Behavioral Health)

Eating Disorders & Men: Representations in the Media (National Eating Disorders Association/NEDA)

Eating Disorders in Men and Boys (NEDA)

Statistics & Research on Eating Disorders (NEDA)