Eating disorders
when to intervene and what to do

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How much of a problem?

Children’s book sparks body image concerns. 19 Aug 2011 – Sydney Morning Herald (8/19/2011 6:17:37 AM -08:00) ... The children's picture book, "Maggie Goes on a Diet," has come ... The mother of a London teenager who died after anorexia "ravaged" her body today condemned a diet book aimed at ...

www.nzherald.co.nz/health/news/article.cfm?c_id=204... - Cached
8 Mar 2009 – Health officials have spent nearly $750000 sending anorexic teenagers to Australia for treatment because New Zealand doesn't have enough ...

www.dailymail.co.uk/.../Malissa-Jones-Britains-fattest-teenager-battling- ...
4 May 2011 – A woman who was once Britain's fattest teenager is now battling with anorexia after her life was turned upside down by a gastric bypass ...
What we will cover

• Diagnostic criteria – strengths and limits
• Epidemiology
• Outcomes
• Screening and assessment in primary care
• Who to admit
• Management in primary care setting
Diagnostic criteria

- AN - Anorexia nervosa
- BN - Bulimia nervosa
- EDNOS - Eating disorder not otherwise specified
Anorexia Nervosa DSM-IV

1. Refusal to maintain body weight at or above 85% of expected, or failure to make expected weight gain during period of growth

2. Intense fear of gaining weight or becoming fat even though underweight

3. Disturbed body image – denial that low weight is a problem

4. Amenorrhoea (in post menarcheal females)

*Subtypes: restricting and binge/purging type*
Bulimia Nervosa  DSM-IV

• Recurrent episodes of binge eating
  – 2x weekly for at least 3 months

• Recurrent inappropriate compensatory behaviour – vomiting, laxatives, fasting

• Self worth contingent on shape and weight

• Bulimic symptoms do not occur exclusively in context of AN

  Subtypes: purging and non-purging
EDNOS

• Eating disorder symptoms that do not meet threshold criteria for AN or BN
• Often as severe and long lasting as classical conditions with same risks
• Is the most common diagnosis
Problems with diagnostic criteria for younger adolescents and children

- Smaller weight loss may be detrimental
  - physiological decompensation after relatively small losses
- Often unable to articulate fears of fatness as a driver for weight loss or food avoidance
  - observed behaviour is a better guide
- Less able to appraise self-worth, body shape and risk
- Amenorrhea
  - Prepubertal children
  - how do you check veracity
  - OC use
How common

- Incidence AN 4-8 per 100,000 per year
- Lifetime prevalence of AN in women = 2%
- Point prevalence rates
  - AN 0.3%
  - BN 1.0%
  - EDNOS 3%
- Increase between 1930s and 1970s, more stable since then
- Onset mostly in adolescence
- 10% of cases in males
Anorexia Nervosa

• Third most common chronic illness in adolescent females (after asthma and obesity)
• Highest mortality rate of any psychiatric disorder
  – 10 - 20% die within 20 years (½ malnutrition, ½ suicide)
• 12X increased mortality cw healthy adolescents
Who gets an eating disorder?

• Girls who diet
  – 18X risk for severe dieters
  – 5X risk for moderate dieters (account for 2/3 of new ED cases)

• Young women with other psychiatric problems – 7X increased risk (Patton 1999)

• Trying to look like people in the media

• Younger children/adolescents with a family history of eating disorder (Field 2008)
General trends in community

• Increased focus in young people on weight

  • 14 -16 yr old girls  (Grigg 1996)
    – 77% wanted to lose weight
    – 57% unhealthy dieting
    – 33% disordered eating
    – 12% distorted body image

• 8 year old girls  (Robinson 2001)
  – 35% unhappy with their weight
  – 24% dieting
Trends in AN

• Younger age of onset
  – pre-pubertal/early adolescent increasing

• Previously overweight young people who lose weight rapidly
  – BMI may be normal or high but will be metabolically and physiologically unstable

• Increased awareness of male eating disorder spectrum
  – Extreme exercise, body-builders, subst use
Prognosis in those treated for AN

- Average duration of illness is 5-6 years
- Mortality 10-20% (improving)
- 47% full recovery (all ages)
- Younger onset and short duration of symptoms lead to better outcomes
  - 80% adolescents treated for AN achieve normal weight and eating
Outcomes for community samples

• General Practice sample (van Son 2010)
  • ½ referred for mental health care
  • 50-60% AN and BN recovered at 5yrs
  • Age <20 yrs = better outcome
  • Those with AN plus binge/purge
    – took longest to recover
    – had highest psychiatric comorbidity
Adolescent community sample

• 1 in 10 girls 15 – 17 years had EDNOS
• 15% still had an eating disorder 10 years later
• Those with an adolescent eating disorder had increased rates after 10 years of:
  – Depressive and anxiety syndromes
  – Underweight
  – Substance misuse
  – Incomplete education  
    (Patton 2008)
Screening and assessment
How do people with eating disorders present to you

• Seldom because they think they have a problem
• Usually because parents/friends/family are concerned about weight loss and altered eating pattern
• May present with complications of weight loss – fainting, general malaise, infertility
• May be an incidental finding while in for routine matter
Screening questions

Simple screening questions as good as standardised instruments in community setting

• Have you ever had anorexia?
• Has anybody ever suspected that you have an eating disorder?
• Have you ever vomited or used laxatives, diuretics, or enemas for weight loss or weight control?  
  (Keski-Rahkonen 2006)
Early warning signs in the context of dieting

- Constant focus on dieting, food, exercise
- Insisting on having different meals from family
- Insisting on eating alone
- Suddenly becoming vegetarian/vegan/dairy-free
- Stressed if unable to exercise, covert exercise
- Frequent weighing
- Frequent visits to bathroom after meals
- Social withdrawal, low mood, irritable

(adapted from Yeo 2011)
If you suspect an eating disorder, assessment needs to include:

- History of weight loss and growth
- History of dieting or food restriction
- History of exercising
- History of purging
- Menstrual history
- Family history and circumstances
- Measurement of height and weight
- Physical examination
- Standard psychiatric assessment
- Standard investigations
Children vs Adults

• Higher risk rapid medical deterioration
  – After relatively small weight loss
  – If stop drinking and get dehydrated
• Risk of potentially irreversible effects on physical and emotional development
• Linear Growth impairment
• Pubertal Delay
• BMI less useful, can be normal even when quite malnourished, use BMI centiles
Assessment – corroborate with parents/family also

• History of weight loss
  – initial weight, rate of loss, highest and lowest weights, current weight

• History of dieting or food restriction
  – amounts and types of food eaten, actual amounts eaten each meal, food hiding, beliefs about food types.

• Fluid restriction
• Exercise/activity levels hours per day
  – Covert exercise
  – Current participation in elite sports eg gymnastics, ballet, athletics

• Bulimic symptoms
  – Bingeing (high calorie foods eaten rapidly in a short space of time)
  – Vomiting
  – Laxative abuse
  – Under-dosing of insulin in diabetics
Physical history

• Menstrual history – onset, LMP
  – OC use
• Other physical symptoms/illnesses
• Energy levels, cold tolerance, fainting
BMI and ideal body-weight

• BMI = weight (kg) ÷ (height x height) (metres)

• Use age adjusted BMI percentile chart to assess where young person is and to calculate target weight
  – These can be down-loaded from CDC website
  – Compare with previous growth trajectory

• In younger children/adolescents we use expected height not actual height
Typical growth chart with severe AN

Adapted from the National Center for Health Statistics (NCHS) - USA 2002
Examination

- Height, accurate weight, BMI, BMI centile
- HR, body temperature, lying and standing BP
- Capillary refill
- Peripheral cyanosis
- Pubertal status
- Assessment of mental state
- Stigmata of binging/purging/self harm (roughness on knuckle of index finger, enlargement parotid glands, cutting etc on arms)
- Peripheral or sacral oedema
Mental state exam - look especially for

- Baggy clothing to disguise weight loss, or clothes that are inadequate for warmth
- Physical over-activity and restless
- Talk and thought content focused on food, fear of fatness
- Distorted body image –
  - sees self as fat despite low/normal weight
  - no actual psychotic symptoms
  - beliefs about weight and food may be fixed and intense
MSE

- Mood maybe low due to malnutrition or to co-morbid depressive illness
  - Must check for suicidal ideation
- Insight usually impaired regarding own physical state and the need to gain weight
- Maybe angry or resistant to being assessed, minimising parents concerns
Aim to

• Feed back findings from physical examination
• Establish weight monitoring and a plan to follow if weight falls
• Discuss psychiatric risk if very depressed or suicidal
• Give young person and family basic information about nature, course and treatment of eating disorders
Investigations

Early stages (expect normal lab results)
• FBC + ESR
• U & E, Creat, Ca, Mg, Phosphate, random blood glucose
• LH, FSH, oestradiol (or testosterone if male)

If more advanced/severe weight-loss add in
• Bicarb & pH on venous gas (metabolic alkalosis may indicate vomiting)
• LFTs
• Calcium, Phosphate, Magnesium
• TFTs
• ECG – QT & PR interval (identify risk of sudden death)
• Urinalysis including pH, specific gravity and ketones (pH high and specific gravity low if water loaded)
So what next

- Medically unstable – admit medically to paediatric service (under 15 years) or adult
- Moderate to severe but still medically stable – refer acutely to CAMHS, CMHC, or Specialist Eating Disorder Service
  - Still have to manage then while waiting for an appointment
- Mild or early weight-loss – manage in primary care with regular monitoring and guidance to parents
Starship Admission Criteria

ANY of the following:
1. Life-threatening weight loss
2. Acute medical complications of malnutrition
3. Acute food refusal
4. Significant dehydration
5. Hypoglycaemia
6. Electrolyte imbalance
7. Physiological instability
8. Abnormal ECG
9. Significant co-morbid psychiatric states
10. Failure to gain weight despite max outpatient Rx
Starship General Paediatric Guidelines

• **Life-threatening weight loss**
  – Total body weight < 75% expected (for height)
  – Acute weight loss of 15-20% in 3 months

• **Electrolyte imbalance**
  – Hypokalaemia (<3.0 mmol/L)
  – Hypophosphataemia (anything below normal range)
• **Physiological instability**
  – Bradycardia - HR < 50/min (check several times)
  – Hypotension - Systolic BP < 80 mmHg
  – Hypothermia - Temp < 35.5°C
  – Significant postural drop in BP (> 20 mmHg) or rise in HR (increase by > 30 bpm)

• **Abnormal ECG**
  – Arrhythmia
  – Diminished amplitude of QRS complex and T waves
  – Prolonged QTC (>0.44) – (see ECG guideline)
Important role for GP in managing

• Disordered eating
• Problematic dieting
• Early eating disorders

AND

• Ongoing physical monitoring of patients under the outpatient care of CAMHS and CMHCs
Primary care role

• Weekly monitoring of weight and physiological parameters
• Psycho-education about
  – the effects of starvation on the body
  – Importance of a balanced diet including need for carbohydrate, protein, and fats
  – Importance of regular meals to prevent starvation and binge/purge pattern of eating
• Support for patients to address these issues
  – Must involve parents for children/adolescents
  – Spouse/friends/family for adults
Focus of AN treatment for young people is family-based

• Supporting parents to get their child to eat enough to regain a health weight
• Close supervision of
  – Regular meals and snacks
  – Appropriate amounts and types of food
  – Activity levels
• Stand firm and working together as parents despite distress and protest
• Is delivered by trained therapists in Specialist eating disorder services and CAMHS over 6-12 months
  (Known as ‘Maudsley Model’ family therapy or Family based therapy)
“Food is an important part of a balanced diet”
- Fran Lebowitz (Author)
Therapy for children and adolescents with AN

- Little evidence that individual therapy is helpful in the acute stages of AN
- Once weight recovery has occurred, CBT for anxiety (OCD) maybe useful
- Antidepressants for low mood are not helpful at a very low weight – wait until weight is normal
Food - ask parents to take control

• Keep an accurate record of exactly what and how much their child is eating
  – ‘normal’ amounts of food will not be sufficient to reverse weight loss

• Young person needs to eat usual family foods
  – ‘maintenance’ plus lost weight
  – Aim for 250 – 500g/week weight gain
  – May need to involve community dietician
You may need to get parents to

• Stop all activities that require energy until back to a normal weight
  – Sports, dance, athletics, swimming

• If the young person is still losing weight or failing to regain weight
  – Keep the young person home from school
  – Stop all outside activities
  – Monitor for covert exercise/purging behaviours
Re-feeding Syndrome
rare in community settings

• Think of this if
  – At a very low weight or sudden rapid weight loss
  – Sudden re-feeding without supplementary phosphate

• Sudden death (first weeks)
  ▪ Hypophosphataemia
  ▪ Hypothermia
  ▪ Hypoglycaemia
  ▪ Prolonged QTc

• Delirium (second two weeks)
Remember

• Parents and families don’t cause AN
• Parents find it hard with previously compliant well-behaved high-achieving ‘good’ children, to stand firm
• Treating AN like any other chronic illness reduces guilt and blame
  – ‘what would you do if your child had diabetes and didn’t want their insulin’
Anorexic behaviours and emotions

- Impaired cognitive function
- Abnormal emotional processing
- Change in personality
- Low mood, irritable
- Obsessive and anxious
- These behaviours are usually a result of malnutrition and the illness

TREATMENT = FOOD & SUPPORT

Antidepressants ineffective
Bulimia Nervosa

• Mainstay of treatment is Cognitive Behavioural Therapy (CBT) – group or individual
  – Aims to normalise eating patterns and reduce binge/purging
  – Diary record of eating, binging, purging
  – Aim for regular 3 meals/day
  – Modification of maladaptive thought patterns

• Important primary care role of monitoring general health
  – Regular electrolytes if vomiting regularly – K+ Na
For patients who are reluctant to accept treatment

- Family involvement and support
  - Critical in children and adolescents
  - Still extremely important in adulthood
- Motivational interviewing
- The immense value of an ‘ongoing relationship’ with the GP
- Use of Mental Health Act if patients eating disorder is causing significant immediate risk to their well-being
Take home points

- Think of eating disorders in adolescents and children, especially those who are **dieting**
- Accurate height and weight
  - Use **BMI percentile charts** for the young
- Admit acutely if medically unstable
- The primary treatment is FOOD
- Support parents to take control early on and reverse weight-loss trend
- Monitor weekly
Resources

• Starship Hospital Website: Anorexia Nervosa guidelines