'I am not a number on a scale,
not a calorie on a plate,
not a measure on the waist…so listen'

Eating Disorders in Children & Adolescents

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Eating Disorders
To eat or not to eat … is that really the question?

- A spectrum of *complex psychiatric disorders* with severe physical consequences, associated with *high morbidity and mortality*.
- Characterized by a range *of abnormal and disturbed beliefs* about eating, body image and weight, shape concerns , in the context of an *intense fear of weight gain*
- A relentless *pursuit of thinness* and a constant preoccupation with food.
- Behaviors including calorie restriction and counting, constant weighing and measuring of self, binge eating , purging : vomiting, laxatives and excessive exercise.
- Could be associated *with psychiatric, neurodevelopmental comorbidities* such as Anxiety , Mood disorders, Obsessive Compulsive Disorders, Attention deficit disorders, Autism spectrum disorders, emotional dysregulation, self- harm or suicidal ideation.

Facts and Statistics
Beat UK & NHS

1.25 million people in UK suffer from Eating Disorders (ED).

- Exact prevalence is difficult to know:(2015 Study, Hay et al):

  Anorexia Nervosa : 8% of cases
  Bulimia Nervosa : 19%
  Avoidant Restrictive Food Intake Disorders : 5%
  Binge Eating Disorders : 22%
  Other Specified Feeding or Eating Disorder (OSFED) : 47%

- Age of Onset: 14-25years generally

- Eating Disorders are not unique to females.:
  Around 25% of those diagnosed with anorexia or bulimia are male and 43% for binge eating disorders

- The number of boys admitted to hospital for eating disorders has doubled since 2010.

- People with eating disorders are 1.6 times more likely to attend Emergency Departments

- Doubling in hospital admissions in the past 6 years

- Eating disorders are serious mental illnesses. Anorexia has the highest mortality rate of any mental illness.

- Of every 5 deaths , 4 may have a physical cause and 1 could be a suicide.

Recovery is possible

'Critical Window' : Intervention in the first 3 years of illness can improve chances of a full and sustained recovery

Recovery: Full Recovery is possible

Anorexia Nervosa (AN) :
- 46% fully recover
- 33% improve
- 20% chronically ill

Bulimia Nervosa (BN)
- 45 % fully recover
- 27% improve
- 23% suffer chronically

Average duration :
- AN : 8 years
- BN : 5 years

Crisis looming!

- Presenting younger
- Rising prevalence : near epidemic level of referrals
- High acuity and severity : physical, psychological, psycho-social risks
- Amber-Reds alerts on Junior MARSIPAN and MARSIPAN
- Struggling capacity of Specialist Eating Disorder services : low critical mass to manage complexities
- Mind the Gap : The ongoing debate about acute medical stabilization for '16-18 yrs' age group by Pediatrics or Gastroenterology
- Transitions
- Specialist Eating Disorder Units (SEDU) admissions on the rise and lack of inpatient beds for transfer of care from acute health settings

Feeding and Eating Disorders

DSM 5 (Diagnostic & Statistical Manual of Mental Disorders : May 2013)

'Feeding & Eating Disorders (FEDs) are conditions that involve abnormal eating or feeding behaviors that are not better accounted for by other health conditions and are not developmentally appropriate or culturally sanctioned'
(Classification of FEDs in ICD 11 : due in Jan 2022)

- Anorexia Nervosa (AN)
- Bulimia Nervosa (BN)
- Binge Eating Disorders (BED)
- Avoidant Restrictive Food Intake Disorders (ARFID) also known as 'extreme picky eating'
- Other Specified Feeding or Eating Disorders (OSFED) replaced EDNOS (DSM 4)
- Unspecified Feeding and Eating Disorders (UFED)
- Pica
- Rumination Disorder

Predisposing vulnerability factors…

There is no one cause of an eating disorder.

Complex multi-factorial vulnerability factors

Biological :

- *History of being over -weight, Type 1 Diabetes, Chronic fatigue, Coeliac disease*
- *Genetic risk factors (not inherited): genetic influences, having a close family member with eating disorders*
- *Personal /family history of depression, anxiety , substance misuse*
- *Food allergies*
- *Puberty :growth spurt, hormonal changes, brain maturation processes, early physical maturity in girls, perceived lack of muscles in boys*
- *Lack of access to good nutritional advise*

Psychological :

- *Overvaluation of weight , shape and food*
- *Body dissatisfaction*
- *Internalisation of a 'thin' socio-cultural ideal*
- *Personality , perfectionism, self-esteem*
- *Interpersonal difficulties*

Precipitating factors

Nobody is to blame.

Family and friends can be vital to recovery and the best source of strength and support

- Puberty : growth spurt, hormonal changes
- Pressures to perform and achieve
- Stress : GCSC, A Levels, University entry
- Peer acceptance, appraisal
- Life events : family difficulties, change of school, loss of a loved one
- Bullying , teasing , cyber bullying
- Power of ‘Like’ on social media
- Anti-obesity messages at school and media
- High risk groups: athletes, ballet dancers, long distance runners

There is more to it than meets the plate….

- Eating Disorders are associated with high morbidity and mortality
- Explore the intensity and duration of weight loss and current nutritional status
- Assess risks :
  - Physical
  - Psychological
  - Psychosocial
  - Insight and Capacity
- Prompt medical examination and blood investigations required
- Cautious refeeding : Beware Refeeding syndrome/ Underfeeding syndrome
- Inter-disciplinary working : involve Specialist Dieticians, Pediatrics ,Gastroenterology, age appropriate Specialist Eating Disorders Psychiatry Services promptly for joint working
- Nutritional restoration is key and can be life saving
- Refer to MARSIPAN Checklist for safe Refeeding

Anorexia Nervosa (DSM V)

- Persistent energy intake restriction relative to requirements, leading to significantly low body weight in the context of age, sex, developmental trajectory, physical health.
- Intense fear of gaining weight or becoming fat
- Persistent behaviour that interferes with weight gain
- Disturbance in self-perceived weight or shape
- 2 subtypes : binge-eating/purging sub-type, restricting sub-type

AN: Behaviours…

- Restricting food, fluids
- Excessive exercise
- Vomiting
- Disappearing after meals
- Restlessness / agitation
- Rituals attached to eating e.g. cutting food , chewing & spitting, disposing food, falsifying weight, food sabotaging

AN: Physical Signs and Symptoms

- Severe weight loss / failure to thrive in children
- Amenorrhoea:
  Primary/ Secondary
- Feeling cold , poor circulation
- Acrocyanosis
- Lanugo hair
- Constipation, diarrhoea, non-focal abdominal pains, bloating, feeling full
- Dizzy spells / fainting, syncope
- Swollen ankles
- Dry, rough, discoloured skin
- Loss of bone mass
- Petechial rash

Bulimia Nervosa (DSM V)

- Recurrent episodes of binge eating characterised by:
- Eating in a discreet period of time (e.g. 2 hrs) an amount of food that is definitely larger than most people would eat
- A sense of lack of control over eating during the episode
- Recurrent, inappropriate, compensatory behaviours
  (such as self-induced vomiting, use of laxatives or diuretics, strict dieting and/or excessive exercise) in order to prevent weight gain
- The binge eating and compensatory behaviour occur on average at least once a week for 3 months
- Self-evaluation is unduly influenced by body shape and weight
- Disturbance not exclusively during episodes of AN

Bulimia Nervosa Behaviours

- Binge-eating large amounts of food
- Vomiting after eating, laxative use, excessive caffeine
- Secretive and ritualistic behaviours
- Periods of fasting
- Excessive exercise
- Hoarding food
- Food disappearing unexpectedly
- Reluctance to socialise at events where food is available
- Shoplifting for food
- Emotional dysregulation, impulsivity, irritability

BN: Physical Signs and Symptoms

Sore throat

Erosion of tooth enamel

Parotid gland swelling

Dehydration and poor skin condition

Russel's sign : callus on back of hand

Lethargy

Gastritis, GORD : tenderness, bloating

Mallory-Weiss tears

Gastrointestinal bleeds -> Anaemia

Malnutrition rarely leading to pancreatitis

Erratic menstrual periods

Frequent weight changes

Binge Eating disorders : BED DSM 5

Binge Eating Disorders are common and complex , leading to weight gain and related physical and psychological comorbidities.

Recurrent episodes of binge eating:

- Eating in a discrete period of time (e.g. 2 hrs) an amount larger than most
- A sense of lack of control
- Associated with marked distress
- At least once /week for 3 months
- Not associated with compensatory behaviors

OSFED & UFED (replace EDNOS: Eating Disorders Not Otherwise Specified)

An eating disorder can present serious physical and psycho-social risks with normal BMI

Other Specified Feeding or Eating Disorders
OSFED

- Atypical AN (all criteria met; despite significant wt loss, wt is within/above normal range)
- BN : low frequency
- BED : low frequency
- Purging disorder : recurrent purging in absence of binging, to influence wt.
- Night Eating Syndrome: recurrent episodes of night eating, causes distress ++

Unspecified Feeding or Eating Disorders :
UFED

Significant distress/ impaired functioning
Don't meet full criteria of any ED

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 weight loss (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.

- *The disturbance is not better explained by lack of available food or by an associated culturally sanctioned practice.*
- *The eating disturbance does not occur exclusively during the course of anorexia nervosa or bulimia nervosa, and there is no evidence of a disturbance in the way in which one's body weight or shape is experienced.*
- *The eating disturbance is not attributable to a concurrent medical condition or not better explained by another mental disorder.*

Assess and explore:

Concerns about weight loss:

Rapid weight changes

Intensity & duration of weight loss

Who is most concerned?

Why now?

Weight and Weight History

- ***Current weight***
- *Pre-morbid weight*
- *Highest weight*
- *Lowest weight*
- *Aspired ideal weight*

Body Estimating Patterns / Rituals

- *Weighing*
- *Mirrors*
- *Clothes Size*
- *Body image*

Nutrition History

Current Eating Behaviours , patterns and acute food refusal

- *Food allergies / intolerances*
- *Food preferences (list of foods will / won't eat)*
- *Eating changes (vegetarian/vegan, preferences, religion, and other beliefs)*
- *Rituals around eating*
- *Restricting*
- *Bingeing*
- *Fluid loading*

Compensatory Behaviours

- *Purging behaviour*
- *Vomiting*
- *Laxatives / ipecac*
- *Diuretics*
- *Diet pills*
- *Stimulants (amphetamines, thyroxin, caffeine)*
- *Exercise (when, how much, how long, social / alone, standing, effects of missing for a day)*

- *Micro exercise*
-
- *Feeling out of control*

- *Guilt after eating*

- *Hoarding food*
-
- *Stealing for Food:*
-

- ***Current daily nutritional intake***

- ***Estimated calories (maximum calorie intake allowed by self)***

- ***Breakfast***

- ***Snack***

- ***Lunch***

- ***Snack***

- ***Dinner***

- ***Snack***

- ***Drinks***

- ***Any other :***

- ***Micro-nutrients : Multi-vitamins, Thiamine, Energy drinks***

The SCOFF Questionnaire

- Scoff Questions: (Score of ≥ 2 positives indicates a possibility of AN or BN)
- S = Do you make yourself Sick because you are uncomfortably full?
- C = Do you feel like you've lost Control over what you eat?
- O = Have you recently lost more than One stone in a three month period?
- F = Do you believe yourself to be Fat when others say you're thin?
- F = Would you say that Food dominates your life?

High index of suspicion

People with eating disorders are unlikely to present with complaints of eating difficulties.

- ***Young women with low BMI, signs of starvation***
- ***People with frequent abdominal pain***
- ***Gastrointestinal symptoms : bloating, constipation, diarrhoea, reflux***
- ***People with repeated vomiting***
- ***Women with menstrual disturbance or amenorrhoea, primary or secondary***
- ***Frequent visits to the dentist***
- ***Young people with Type 1 diabetes***
- ***Children with poor growth***
- ***Boys with delayed puberty***
- ***Fractures due to reduced bone density***
- ***Reduced libido, impotence, sub fertility***
- ***People consulting with weight concerns who are not overweight***

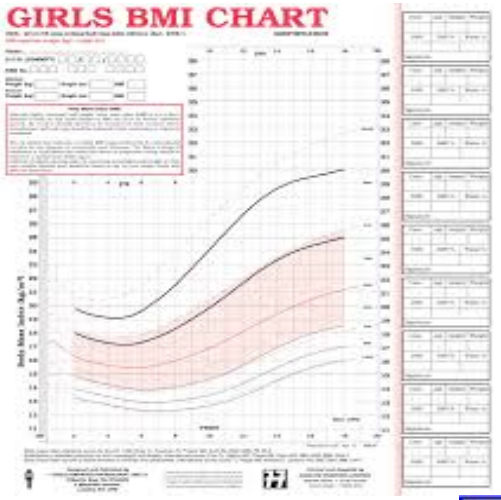
Behavioral Indicators

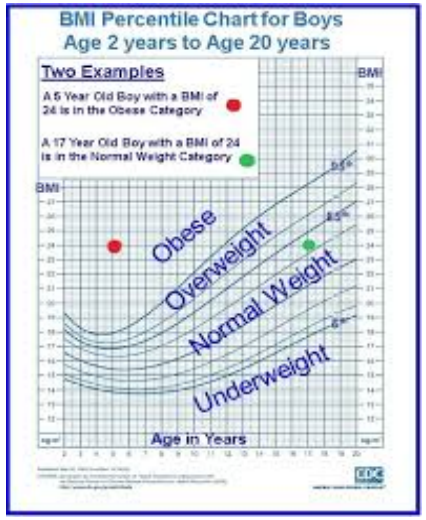
- Reluctance to engage
- Focusing on physical symptoms
- Resisting weighing and examination
- Oversized, baggy clothing,
- Dressed in warm clothes in hot weather
- Covering body
- Being secretive or evasive
- Increased energy levels; agitation ; micro-exercise
- Angry , distressed when asked about eating behavior

Limitations of BMI in the Young

$$BMI = \frac{(\text{weight in kilograms})}{\text{height in meters}^2}$$

- *When assessing normal growth in children and young people, BMI percentile should be followed , rather than BMI itself.*
- *Percentage BMI (Actual BMI x100/ median BMI (50th centile) for age and sex*
- *Decrease in percentile (for e.g. 50th to 2nd) is a more reliable measure of malnutrition than BMI due to :*
- Potential for deceit
- Less reliable if rapid change in weight
- Less reliable if bulimic features
- Less reliable if fluid restriction/ water loading
- Less reliable if physical co-morbidity
- Taller men





MARSIPAN checklist

for Really Sick Patients with Anorexia Nervosa

Assessing

Does the patient have anorexia nervosa?

- ☐ Yes
- ☐ Not sure and psychiatric review requested

Are there significant risk factors?

- ☐ BMI <13 (adults) or <70% median BMI for age (under 18)?
- ☐ Recent loss of ≥1 kg for two consecutive weeks?
- ☐ Little or no nutrition for >5 days?
- ☐ Acute food refusal or <500 kcal/day for >2 days in under 18s?
- ☐ Pulse <40?
- ☐ BP low with postural dizziness?
- ☐ Core temperature <35°C?
- ☐ Na <130 mmol/L?
- ☐ K <3.0 mmol/L?
- ☐ Raised transaminase?
- ☐ Glucose <3 mmol/L?
- ☐ Raised urea or creatinine?
- ☐ ECG: e.g. bradycardia? QTc >450 ms?

Is the patient consenting to treatment?

- ☐ Yes
- ☐ No and assessment for compulsory detention requested

Refeeding

Is intensive medical care needed?

- ☐ Yes
- ☐ No and regular risk monitoring in place

Increased risk of refeeding syndrome?

- ☐ Low initial electrolytes
- ☐ Low BMI (<13 or mBMI <70%)
- ☐ Significant comorbidities (e.g. infection, cardiac failure, alcoholism, uncontrolled diabetes)
- → Start at 5–10 kcal/kg/day
- → Monitor electrolytes twice daily and build up calories swiftly: avoid underfeeding

Lower risk of refeeding syndrome?

- → Start at 15–20 kcal/kg/day and build up swiftly
- → Avoid underfeeding syndrome

Give all adults oral thiamine and Pabrinex®

Monitor

- → Electrolytes (especially P, K)
- → ECG
- → Vital signs
- → BMI

Managing

Are medical and psychiatric staff collaborating in care?

- ☐ Yes
- ☐ No and psychiatric consultation awaited

Are nurses trained in managing medical and psychiatric problems?

- ☐ Yes
- ☐ No and appropriately skilled staff requested/training in place

Are there behaviours that increase risk?

- ☐ Purging behaviours
- ☐ Falsifying weight
- ☐ Disposing of feed
- ☐ Exercising
- ☐ Self-harm, suicidality
- ☐ Family distress/anxiety
- ☐ Safeguarding concerns
- → Mobilise psychiatric team to advise on management

See full report: Royal College of Psychiatrists, Royal College of Pathologists, Royal College of Physicians. *MARSIPAN: Management of Really Sick Patients with Anorexia Nervosa, 2nd edition* (College Report CR189). Royal College of Psychiatrists.

Collaborative MDT Management : Young people & Carers

- Psycho-education
- Risk assessment and management
- Weight and health restoration
- Micronutrient supplementation
- Re-feeding with supervision
- Dental health
- Family Therapy-AN,FBT, Multi-family therapy, CBT-E, AFT
- Carer Empowerment & Support groups .
- Psychological therapies
- Psychopharmacology
- Multi-agency liaison,
- Safeguarding

The law

- Important principles
  - Best interests (broad concept)
  - Least restrictive option
  - Autonomy and self determination
  - Assumption of capacity and supporting/enabling decision-making even when capacity is compromised
  - Capacity to make decisions can be impaired in subtle ways
  - Consent can take different forms
  - Collaborative , ethical decision making requires a systemic perspective with kindness, compassion and trust
  - For under 18 – welfare of the child is paramount

- Key legislation with respect to ED
  - MHA (sections 2, 3 and CTO)
  - MCA
  - Children Act

Slide courtesy of Dr Jacinta Tan

'A Great masquerader of the 21st century'

Trent et al 2013

- People with eating disorders are often treated in the emergency department for a myriad of ED related and non related vague complaints . It is crucial to understand that these complaints may mask an underlying ED
- Eating disorders can affect people of both genders, all ages, ethnicities, socioeconomic status, variety of weights, shapes and sizes
- Presentation to the emergency department may offer a crucial opportunity for recognition and intervention
- Involving immediate family is of utmost importance to assist with information gathering and as a source of support
- It poses an inter-disciplinary challenge to recognize and safely treat ED
- Integrated work : with Specialist ED services, Dietetic team, Pediatrics, Gastroenterology, Liaison Psychiatry, Safeguarding Service as required.
- Acute malnutrition is a medical emergency : it is vital to understand the pathophysiology and psychopathology of ED
- BMI is not an accurate measure of risk

References

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- Beat & NHS-Guardian statistics