The Eating Disorders: 
Anorexia Nervosa & 
Bulimia Nervosa 
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Format

- History
- The feeding disorders
- Definitions
- Epidemiology
- Diagnosis
- Clinical manifestations
- Principals of management
History

• **9th century** St Jerome's followers starve themselves, became thin & became amenorrheaic

• **1694**: Richard Morton published 1st case of self starvation & specified symptoms of AN

• **1940** Bulimia as an entity by itself recognized
Eating Disorders

Fall into 2 broad categories Overeating (binging) or Undereating (anorexia)

1. Anorexia nervosa
2. Bulimia nervosa
3. Binge eating
Definitions DSM 5

Anorexia nervosa

- Inability to maintain normal weight
- Fear of weight gain
- Dietary habits that prevent weight gain
- Impaired perception of body and shape (body image disturbance)
• Impaired perception of body and shape (body image disturbance)
• Types:

1. Restrictive type - food intake limited

2. Binge-eating or purging type - indulge in regular binge eating or purging

• The core struggle 2Ps feeling powerless & striving towards perfection
Anorexia Nervosa: Diagnosis Criteria

- Disturbed Body Image
- Fear of Fatness
- Inability to Maintain Body Weight Within 85% of Expected
- Amenorrhea in Girls
Bulimia Nervosa

- Greek "Ox hunger"

- Binge eating followed by compensatory purging by vomiting / Laxatives/ diuretic or enema or excess exercise or fasting periods

- lack of control over amounts eaten, and a feeling of being unable to stop

- Core conflict is "2Ds" deprivation and dependency
• Types:

1. Purging type ~ uses laxatives diuretics +/- vomiting

2. Non-purging - bingeing followed by fasting or exercises
Binge eating disorder

• "Stress eating"   "Emotional overeating"

• Introduced 1992

• Feed rapidly large amounts until completely full, far beyond point of satisfying physical hunger

• Done in secrecy, strong feeling of guilt depression and self disgust thereafter
• Episodes of binging not "compensated" with purging or exercise or fasting

• At least 2 days per week for 6 months

• Different from obesity which is not associated with same degree of dyscontrol, self anger, shame & frustration
Binge Eating Cycle

Why?
Unmet needs
Escape

When?
Triggers: Physical,
Environmental,
Emotional

What?
Comfort Foods
Forbidden Foods

How Much?
Until food is gone
or until sick

How?
Fast, secretly,
mindlessly

Where?
Tired, angry,
ashamed

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EDs the spectrum

Anorexia nervosa  Bulimia nervosa  Developmental obesity
Epidemiology

- Female: male 9:1
- AN prevalence 1% (0.1-5.7%) teenage & young adults population in the west
- BN up to 5% (0.3-7.3%)
- Non Western countries 0.46-3.2%


Epidemiology ctd

• Africa & Kenya studies


Conclusions:

• Probably rare in Africa

• Numbers not increased despite westernization & shift from "fat is good" to the chic "thin is good"

• ED's may present differently (EDNOS) in different cultures and diagnostic criteria based on western norms may not always be appropriate

• Patients could present elsewhere in hospitals misdiagnosed with complications or seen by other health workers
Americans with eating disorders

13 million binge eat

10 million women battle anorexia or bulimia

1 million men battle anorexia or bulimia

Body sizes

Average American woman

5’4”

140 lbs.

Average female fashion model

5’11”

110 lbs.

Dieting industry

$40 billion a year = 400 million monthly Weight Watchers passes or 570 million boxes of Alli (the weight-loss drug)

Eating-disorder related hospitalizations

(increase from 1999 to 2006)

18% overall
37% among men
119% among children under 12 years old

Children

80% of all 10 year olds are afraid of being fat

42% of all 1st through 3rd grade girls want to be thinner
Etiology

Personality traits

- Low self esteem
- Feeling of inadequacy
- Perfectionist
- Depression, Anxiety, Stress, Trauma
Etiology ctd

Genetics

- Relatives of patients with AN x8 more likely to develop an ED
- Monozygotic twins 58-76% concordance
- Dizygotic twins 35-45% concordance
- Serotonin precursors (5-HIAA) decreased in AN when ill, normalize when improves
Etiology ctd

Environmental/ Cultural influence

- Ridicule due to weight gain or size
- Troubled family or personal relationships
- Physical / Sexual/ Mental abuse
• Cultural pressures that adore thinness & place value on obtaining the "perfect body"

• Narrow definitions of beauty eg specific body weights

• Professions that emphasize thinness eg modelling, running, gymnasts, dancing

• Media helps create context within which people learn to place value on body size & shape
local magazine
Diagnosis

• Difficult because of secrecy they like to uphold
• They don't believe they're unwell

  • Alarm signs:
    • Moodiness
    • Intense desire to be alone especially during mealtimes
    • Compulsive desire to exercise at any time of the day
    • Patient with unexplained weight loss
    • Multiple unjustified visits to the toilet
    • With a new medical problem (complication)
• History over-attention to pts self image & esteem, enquire about early morning awakening & suicidal thoughts

• Psychological profile to r/o pre morbid anxiety disorder, affective disorders eg depression, obsessive compulsive disorder

• Medical conditions: amenorrhea,
AN Clinical presentation/ complications

- Related to malnutrition and semistarvation state
BN clinical presentation / complications

- Related to the purging
Differential diagnosis

- Psychiatric disorders
- Affective disorders
- Personality disorders
- Wasting disorders ~ malignancy, immunosuppression, thyroid dz
Management

Is multidisciplinary including Paediatrician, Psychiatrists, Psychologist, Nutritionists

1. Nutritional rehabilitation
2. Psychotherapy
3. Psycho Pharmacotherapy
Nutritional rehabilitation

- AN Cannot be effectively treated without 1st restoring body weight
- Without a concerted refeeding effort, Psychotherapy not possible due to starvation induced cognitive deficit
- Weight restoration is the most challenging & frustrating part of recovery
Most treatment centres use combination of:

- Behavioural techniques, cognitive restructuring, and a progressive structured program of oral caloric intake

- Judicious slow initiation of caloric intake needs daily mnx to monitor liver inflammation & hypoglycemia

- "Start Low, advance Slow"
Psychotherapy

- Individual, family or group
- Emphasizes on that EDs are not a diet problem
- Addresses issues of Chaotic eating, hunger, inadequate caloric intake, profound fear of expressing feelings of anger & sadness
Refeeding

Refeeding syndrome

- A problem associated with fluid & electrolyte shift
- Can cause severe morbidity or even death during early phase of feeding
- Can occur whether by oral, enteral, or parenteral route
• Chr malnutrition leads to diminished cardiac mass

• Results in decreased CO, & difficult handling of blood volume associated with refeeding

• Serum phosphorus, potassium and magnesium

• feeding (glucose) > insulin surge> phosphate moves into intracellular compt> hypophosphatemia

• Incorporation of phosphate into newly synthesized tissues

• Low PO4 > low ATP> cardiac muscle weakness >heart failure

• Diaphragmatic muscle fatigue> respiratory embarrassment
Psychopharmacotherapy

- Evidence regarding drug efficacy is weak
- However Fluoxetine used due to effects on Serotonin levels in AN after weight stabilization
- Olanzapine with psychotherapy useful in AN
Summary

- EDs an adolescent & early adulthood problem
- Classical cases may not be as common but EDNOS are with us
- Due to stigma diagnosis not straightforward
- More likely present with complications rather than primary problem
- Early diagnosis & multispeciality management prevents mortality
- Management involves: Refeeding, Psychotherapy, Pharmacotherapy
- Nutritional rehabilitation involves "Start low Advance slow"
Take home message

• AN & BN are here with us amongst our teenagers

• Diagnosis is not straightforward

• Usually will present with complications rather than primary problem +/- psychiatric co-mobidity

• Therefore high index of suspicion needed

• Early diagnosis and team management essential for good outcome