
BULIMIA
NERVOSA

Introduction

- Eating d/o are disorders of eating behaviors, associated thoughts, attitudes & emotions, and their resulting physiological impairments.

- Anorexia nervosa & bulimia nervosa are thought to proximally derive primarily from one or both of the following factors:

Introduction

- (1) an overvaluation of the presumed benefits of weight loss or shape change, usually in the context of overvalued beliefs internalized from sociocultural norms promoting the benefits of thinness or shape change.

- (2) fear of fat, or somato visceral discomforts associated with ingesting food that result in functional medical, psychological, and social impairment.

Introduction

- These d/o represent dysfunctional, emotional, cognitive & behavioral strategies for coping with physiological vulnerabilities that are challenged by various issues in development, including temperament, mood and other emotional disturbances, difficult interpersonal relationships, all contributing to intrapsychic conflicts and all evolving into self-sustaining illnesses.

Introduction

- Highest rates of premature mortality in psychiatry.
- Up to 19 % within 20 yrs of onset among those initially requiring hospitalization.
- The syndrome of bulimia nervosa was 1st described as part of the eating disorders spectrum only in 1979.
- The official recognition of binge eating disorder is even more recent.

Introduction

- In addition to being serious psychiatric d/o, eating d/o present as serious medical conditions.
- These pts frequently are initially seen by non psychiatrist who may or may not recognize the presence of an eating d/o.
- Pts with bulimia nervosa are often 1st seen by

1. Obstetricians or gynaecologists for c/o of infertility and menstrual difficulties,
2. Gastroenterologists for an assortment of digestive and bowel complaints,
3. Endocrinologists for nutritional complaints,
4. By dentists for severe dental decay.

Introduction

- Families, teachers, athletic and dance coaches, and clinicians are all more aware of these d/o than they were several decades ago.

- Now a days tabloids & major magazines headline major celebrities struggling with eating d/o almost every month.

History

- Bulimia nervosa derives from "ox-hunger" in Greek and "nervous involvement" in Latin.
- For many pts bulimia nervosa represents a failed attempt at anorexia nervosa, sharing the goal of becoming very thin, but occurring in an individual less able to sustain prolonged semistarvation or severe hunger as consistently as classic restricting anorexia nervosa pts.

Cont.

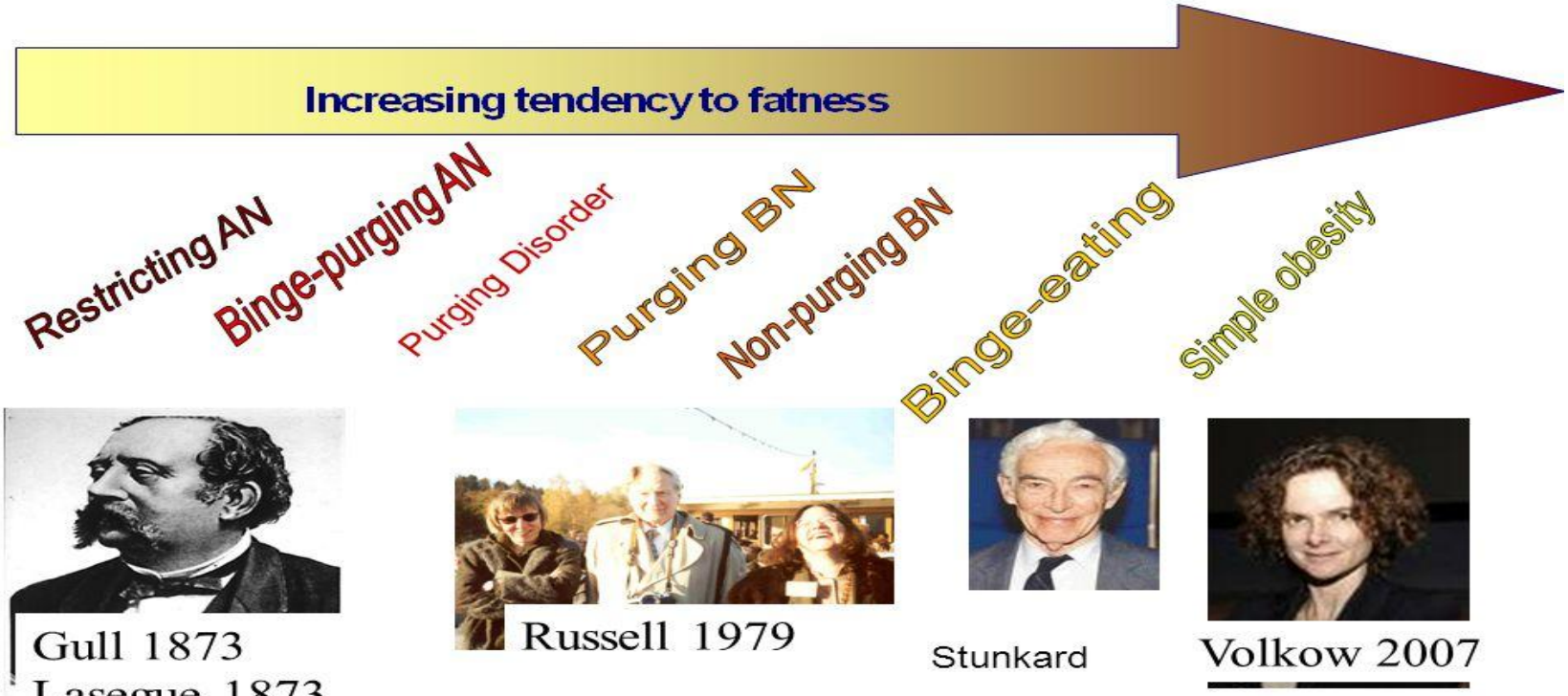
- A bulimia nervosa pt begins directly-

1. By purging, often after media information (newspaper, tv, etc.)
2. After inappropriate educational programs aimed at preventing eating d/o actually teaches vulnerable young girls about the symptoms.
3. After receiving a “tip” from a friend suggesting that purging is a quick way to lose weight.

Cont.

- Russell described bulimia nervosa in 1979, using the term nervosa to unite the two forms of the eating d/o spectrum—the self-starving syndrome of anorexia nervosa and the newly recognized binge–purge disorder—psychopathologically.
- Bulimia nervosa was initially described as “an ominous variant of anorexia nervosa,” but later descriptions incorporated the syndrome of bulimia nervosa at normal weight.

Spectrum of EDs



Binge eating

- **Binge eating** is a pattern of disordered **eating** which consists of episodes of uncontrollable **eating**.
- It is sometimes a symptom of **binge eating** d/o or **compulsive** overeating d/o.

Purging

- The **Purging** Type describes individuals who regularly compensate for the binge eating with self-induced vomiting, laxative abuse, diuretics, or enemas.

- The Non-**Purging** Type is used to describe individuals who compensate through dietary fasting or excessive exercising.

Cont.

- The recognition of bulimia nervosa was hidden for a number of reasons-
  - The shame and secrecy of sufferers, who were reluctant to reveal these symptoms even while being treated for other related comorbid disorders, such as depression; the seemingly normal weight of most bulimic pts;
  - Lack of requests for help.

Cont.

- Goal of becoming very thin.
- But occurring in an individual less able to sustain prolonged semi-starvation or severe hunger as consistently as classic restricting anorexia nervosa pts.
- Acc.to DSM-IV-TR, bulimia nervosa is defined as binge eating combined with inappropriate ways of stopping weight gain.

Cont.

- Social interruption or physical discomfort ie., abdominal pain or nausea terminates the binge eating, which is often followed by feelings of guilt, depression, or self-disgust.

- Unlike pts with anorexia nervosa, those with bulimia nervosa may maintain a normal body weight.

Epidemiology

- More prevalent than anorexia nervosa.
- Range from 2 to 4 % of young women.
- More common in women than in men,
- Onset is often later in adolescence than that of anorexia nervosa.
- 20 % of college women experience transient bulimic symptoms during their college yrs.
- Lifetime prevalence approximately **3 times** of current point prevalence.

EPIDEMIOLOGY

- Eating d/o are among the most gender-divergent d/o in psychiatry.
- The divergence is substantially narrower than previously believed.
- Previous ratio of men : women for eating d/o were typically 1 in 20 to 1 in 10.

EPIDEMIOLOGY

- Excellent recent community-based epidemiological studies, found ratios of approximately 3 to 1 for both anorexia nervosa and bulimia nervosa.

- Bulimia nervosa do not occur below the age at which children can internalize fat phobias or overvalue social norms of slimness.

EPIDEMIOLOGY

- **Pubertal age:** Higher with early puberty, especially pubertal obesity, for girls.
- **Monozygotic to dizygotic ratio:** 3:1.
- **Monozygotic twin concordance:** ≥50%.
- **Rural vs. urban:** Higher with move from rural to urban setting.
- **Sexual orientation:** Higher with gay orientation; no differences with lesbian orientation.
- **Medical comorbidity:** Possibly higher with DM type I (controversial).

EPIDEMIOLOGY

- **Personality role:** Higher probability of a personality disorder; bulimia nervosa, higher with cluster B.
- **Prior psychiatric disturbance:** Childhood and early adolescent anxiety, mood, and obsessive-compulsive d/o.
- **Premature mortality: 0 to 19% on 10- to 20-year** follow-up after hospitalization (medical causes > suicide); >50 times when co-occurs with alcohol dependence.

EPIDEMIOLOGY

- **Vocational / avocational risks:** Ballet, modeling, amateur wrestling, visual media roles, appearance sports (female gymnastics, figure skating), thinness sports (jockey, cross-country running, lightweight crew).

Etiology

- 1st , eating d/o are disorders of eating behavior.

- 2nd , the analogy may easily be overdone.
- Similarities exist b/w eating d/o & drug abuse in that abnormal eating, (self-starvation or binge–purge behaviors) produces significant immediate emotional changes (initial relief of dysphoria and production of excitement).

- 3rd , biological theories are popular and are being actively researched.

- No convincing evidence yet exists that eating disorders derive primarily from preillness structural or functional abnormalities of the brain.

Etiology

- The most compelling perspective is a recognition that eating d/o probably derive from a cluster of predisposing vulnerability factors reacting to precipitating events .

- They are maintained by sustaining social, psychological, and biomedical reinforcements.

Vulnerability: Predisposing Factors

- It is doubtful that individuals who are not predisposed with typical known risk factors can develop true sustained eating d/o, even with dieting behavior.

Cont.

- Eg. An extroverted young woman with an internal rather than external locus of control, who grew up in a balanced, supportive family, who possesses high assertiveness, has a self-accepting body image, average weight, with negative family h/o of affective d/o or obesity is a doubtful candidate for an eating d/o, even if she practices brief dieting to meet job (e.g., modeling) or avocational (e.g., ballet) requirements.

Biological Vulnerability

- High rates of familial transmission.

- Twin studies demonstrate a high concordance in monozygotic twins, 03 times higher than in dizygotic twins.

- Monozygotic twins are documented to have a 50 to 80% concordance rate for eating d/o.

Biological Vulnerability

- Impulsive & extroverted personality styles increase the probability of binge eating–purging dieting cycles.
- Personality plays a major role in the probability of developing any eating d/o and its specific subtype.
- Several large-scale linkage and association studies are under way.

Biological Vulnerability

- To date, areas of particular interest have been identified on at least chromosomes 1, 2, and 13.

- The %age of occurrence explained by these specific genetic associations is still quite small.

- Population studies suggest that genetic factors may, overall, contribute approximately 50 % or more to the appearance of anorexia nervosa & bulimia nervosa.

Biological Vulnerability

- Dieting itself is a major stressor to the nervous system.

Temperament, Psychological, and Social Vulnerability

- Family transmission represents a major vulnerability factor for eating d/o, with a family h/o of eating d/o, affective spectrum d/o, anxiety d/o, OCDs, and obesity contributing approximately equally.
- Mood d/o are approximately 04 times more common in families of eating-disordered individuals than in the community at large.
- The exact mechanism by which this family h/o predisposes to eating disorders is unknown.

Temperament, Psychological, and Social Vulnerability

- In young girls, a shaky self-esteem, teasing by family or friends, or comments and directives from authority figures (doctors, nurses, teachers, coaches) regarding need to change weight and shape contributes to vulnerability.

- Twin studies suggest that approximately 17- 46 % of the variance in both anorexia nervosa and bulimia nervosa can be accounted for by non shared environmental factors.

Precipitating Factors

- 95 % of cases, the eating d/o is precipitated by dieting.
- In approximately 8 % of cases, initial weight loss may be inadvertent (automobile accident requiring jaw wiring, flu, ulcer, etc.),
- After some weight loss occurs for medical reasons, social praise or self-observation with a scale or mirror soon reinforces the desirability of the weight loss.
- Pt now actively directs further weight loss by voluntary dieting.

Precipitating Factors

- Move to a new location
- Changes in schools
- Social or academic competition with peers
- Romantic disappointment
- Family illness or death
- Urging of coaches, teachers, or physicians to lose weight.
- Sexual abuse may be a precipitating event for a number of psychiatric d/o, including eating d/o.

Precipitating Factors

- Family discord

- Onset of a mood d/o leading to a self-critical and worsened body image, or spurts of weight gain from any source may stimulate dieting behavior as a means of increasing one's sense of personal control, sustaining factors for continued weight loss attempts.

Sustaining Factors

- A combination of social, psychological, and/or physiological re-inforcers.

- Social praise commonly provides external reinforcement for further weight loss through dieting or exercise or both.

DSM -5

A. Recurrent episodes of binge eating. An episode of binge eating is characterized by both of the following-

1. **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 under similar circumstances.

2. A sense of **lack of control** over eating during the episode (e.g. feeling that one cannot stop eating or control what or how much one is eating).

DSM -5

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

C. The binge eating and inappropriate compensatory behaviors both occur, on average, at least **twice a week for 3 months.**

D. Self evaluation is unduly influenced by body shape and weight.

E. The disturbance does not occur exclusively during episodes of anorexia nervosa.

ICD 10

- **F50.2**

For the definite diagnosis , all of the following are required:-

- A) there is a **persistent preoccupation** with **eating**, and an **irresistible craving** for food; the patient succumbs to **episodes of overeating** in which large amounts of food are consumed in short periods of time.

ICD 10

- B) The patient attempts to counteract the “fattening" effects of food by one or more of the following: self-induced vomiting; purgative abuse, alternating periods of starvation; use of drugs such as appetite suppressants, thyroid preparations or diuretics. When bulimia occurs in **diabetic patients** they may choose to **neglect their insulin** treatment.

ICD 10

- C) The psychopathology consists of a **morbid dread of fatness** and the patient sets herself or himself a sharply **defined weight threshold**, well below the premorbid weight that constitutes the optimum or healthy weight in the opinion of the physician. There is often but not always, a history of an **earlier episode of anorexia nervosa**, the interval between the two disorders ranging **from a few months to several years.**
- This earlier episode may have been fully expressed, or may have assumed a minor cryptic form with a moderate loss of weight and/or a transient phase of amenorrhoea.
- Includes : bulimia NOS

  hyperorexia nervosa

Key features

Key features of ICD-10 bulimia nervosa-

- A. Recurrent episodes of overeating (twice a week for 3 months)
- B. Persistent preoccupation with eating and sense of compulsion or craving to eat.
- C. Counteraction of calorie intake by self-induced vomiting or purging, starvation or use of drugs.
- D. Feeling too fat, with dread of fatness usually leading to underweight.

Key features

Key features of DSM-5 bulimia nervosa

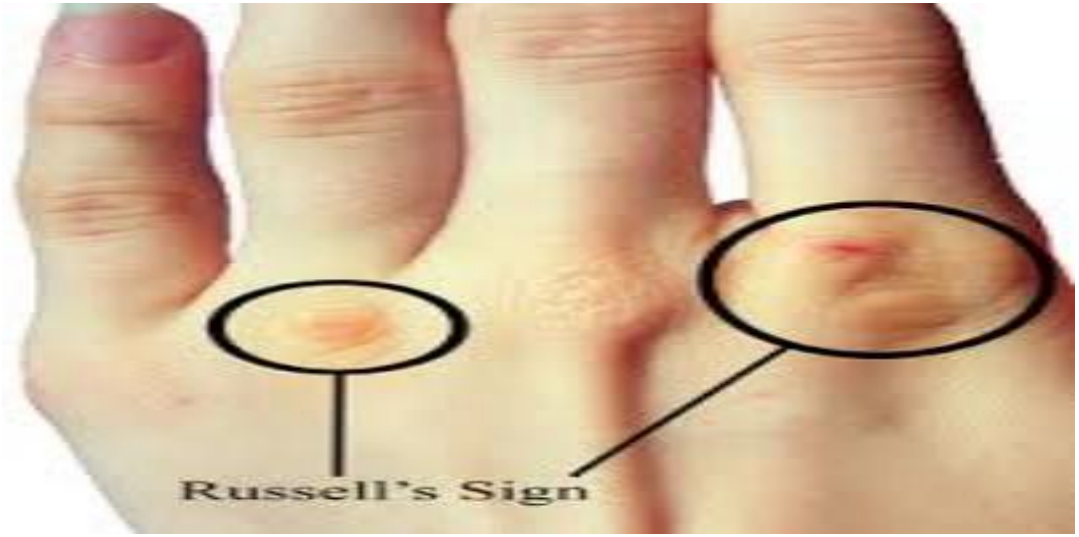
- A. Recurrent episodes of binge eating
- B. Repeated use of self-induced vomiting or laxatives, diuretics, enemas, fasting, exercising excessively or other medications to prevent weight gain.
- C. Both of the above must occur an average of twice a week for 3 months.
- D. Body shape and weight unduly influenced self-evaluation.
- E. Diagnosis of anorexia nervosa is not present.

Key features

- Subtypes
  1. Purging: self-induced vomiting, misuse of laxatives, diuretics or enemas
  2. Non-purging: only fasting or exercising to counteract calorie intake.

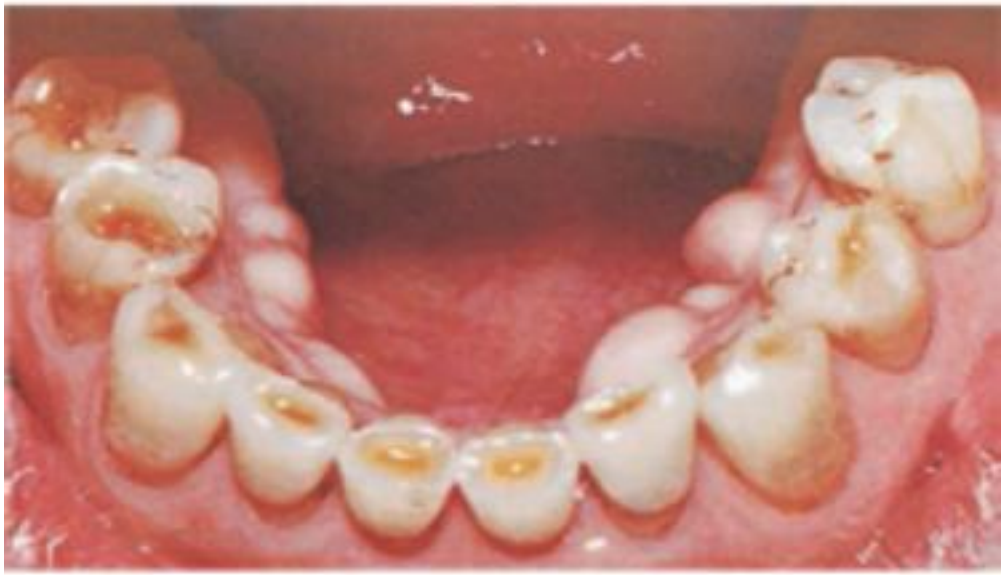
Clinical features

- Cutaneous impairments with the exception of the Russell sign that is often present in pts with vomiting.



Clinical features

- Oral complications-Angular chelosis, enamel erosion, Caries , Gingivitis, Sialadenosis (hypertrophy of salivary glands).



Clinical features

- Constipation, abdominal pain, Disordered oesophageal motility, including lower than normal oesophageal sphincter pressure, relaxed sphincter pressure.

- Menstrual irregularities, such as oligomenorrhoea or amenorrhoea, occur in almost 1/2 of the women

Comorbidities

- Major depression-100%.
- Anxiety d/o-50%.
- Schizophrenia-0%(rare).
- OCD-50%.
- Substance abuse-50%.(alcohol abuse).

Lab. investigations

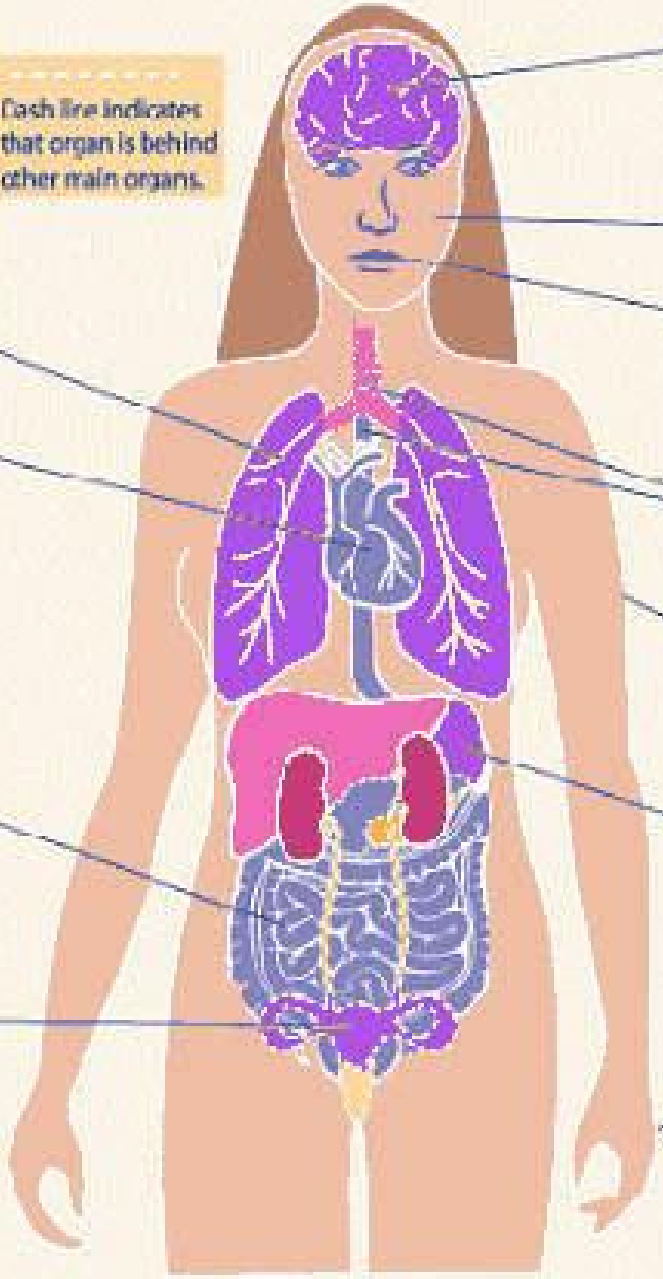
- Complete blood count
- Electrolytes
- Blood urea nitrogen, creatinine
- TSH, Free Thyroxin
- ECG
- Total protein and prealbumin
- Fasting glucose
- S.Amylase
- Serum phosphate

MEDICAL COMPLICATIONS

- Metabolic : hypokalemic alkalosis or acidosis, dehydration.
- Renal: prerenal azotemia, acute and chronic renal failure.
- Cardiovascular: arrhythmias, myocardial toxicity.
- Dental: lingual surface enamel loss, multiple caries.

- GI: Swollen parotid glands, elevated serum amylase, gastric distension, irritable bowel syndrome, melanosis coli from laxative abuse, oesophageal tear.
- Musculoskeletal: Cramps, tetany.

How bulimia affects your body



Dash line indicates that organ is behind other main organs.

Brain
depression, fear of gaining weight, anxiety, dizziness, shame, low self-esteem

Cheeks
swelling, soreness

Mouth
cavities, tooth enamel erosion, gum disease, teeth sensitive to hot and cold foods

Throat & Esophagus
sore, irritated, can tear and rupture, blood in vomit

Muscles
fatigue

Stomach
ulcers, pain, can rupture, delayed emptying

Skin
abrasion of knuckles, dry skin

Blood
anemia

Heart
irregular heart beat, heart muscle weakened, heart failure, low pulse and blood pressure

Body Fluids
dehydration, low potassium, magnesium, and sodium

Intestines
constipation, irregular bowel movements (BM), bloating, diarrhea, abdominal cramping

Hormones
irregular or absent period

Course and Prognosis

- Course of eating d/o is extremely varied in duration & severity.
- It is a more variable d/o than anorexia nervosa in its severity, comorbidity, t/t outcome.
- In a 10 yr follow-up study of pts who had previously participated in t/t programs, the number of women who continued to meet full criteria for bulimia nervosa declined as the duration of follow-up increased.

Course and Prognosis

- Approximately 30% continued to engage in recurrent binge eating or purging behaviors.

- A h/o of substance use problems and a longer duration of the d/o at presentation predicted worse outcome. Depending on definitions, 38 - 47 % of women were fully recovered at follow-up.

Course and Prognosis

- Among men, as in women, the best outcomes occur in adolescents with good sexual adjustment for their age before the onset of illness, with supportive families, who have had less initial weight loss and less psychiatric comorbidity.

Treatment

Treatment

- Psychiatric hospitalization is only occasionally indicated for the treatment of normal weight pts with bulimia nervosa.
- 15% of recent & less severe cases of bulimia nervosa have responded to 04 sessions of psychoeducation emphasizing healthy nutrition with relief of bulimic symptoms and behaviors.
- Up to 20 % respond to guided self-help programs using professionally prepared manuals, psychoeducation, and cognitive-behavioral principles.

Treatment

- For moderately severe case of bulimia nervosa, CBT has been clearly documented as an effective t/t.
- If pts show little response to CBT, after approximately 08 sessions, studies suggest that adding an SSRI will improve outcome.
- Enhancing motivation is a key early t/t element.
- For adolescents living with their parents, family therapy using the Maudsley model may be effective.

Treatment

- **Antidepressants - 60%** report symptom reduction - decreased freq. of binge eating & purging
- Sole therapy not adequate
- **SSRIs Fluoxetine, Sertraline - FDA approved**
- Fluoxetine - 60 to 80 mg/day effective if OCD components present.
- **TCAs, MAOIs and atypical antiepileptic** agents effective - problematic S/E
- **Bupropion** contraindicated - seizure risk.

PSYCHOTHERAPY

- **Cognitive Behaviour therapy(CBT)**
- 1st phase : Educating patients ,Self monitoring , recording
- 2nd phase :Homework assignments -
  - help patients broaden food choices .
  - identify & correct dysfunctional attitudes, beliefs & avoidance behaviors .
- 3rd phase :To identify interpersonal stressors & employ coping styles.
- 4th phase :Relapse prevention strategies.

PSYCHOTHERAPY

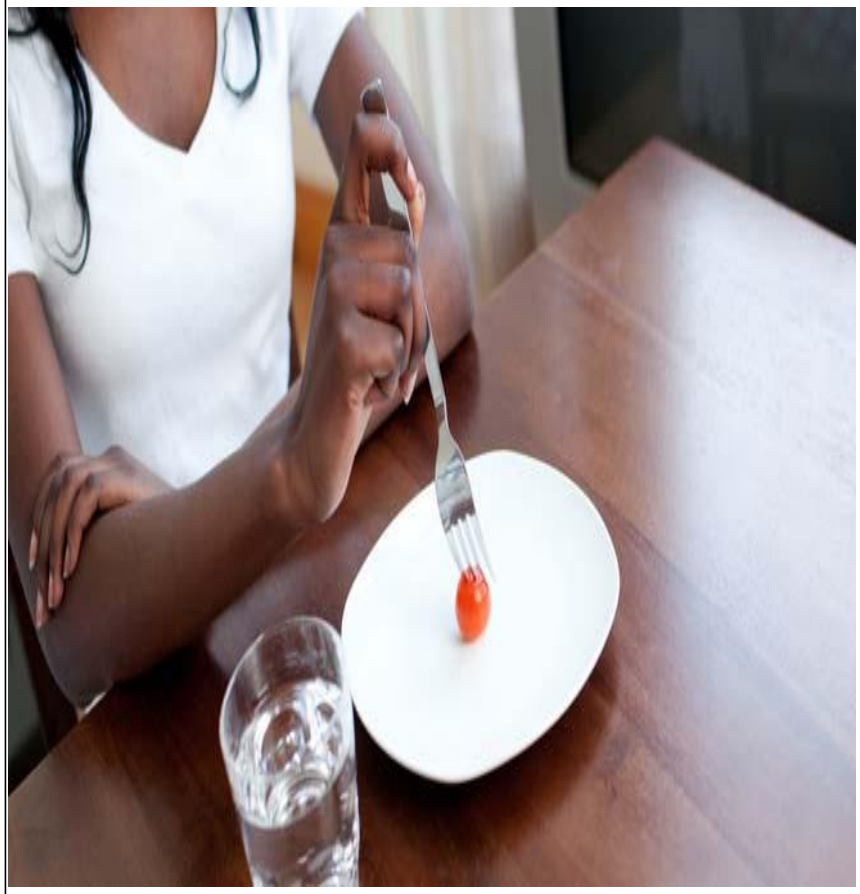
Others :

- Internet based platforms
- CD-ROM facilitating CBT
- E mail enhanced programs
- Tele-medicine

	Anorexia nervosa	Bulimia nervosa
	Sufferes fear weight gain & avoid eating.	Sufferes go through a cycle of binging followed by purging due to fearof weight gain.
Typical age of onset	Early teen yrs	Late teen yrs
Behavioural & psychological symptoms	Obsessions with food, weight, a thin body image, compulsive exercise, depression & anxiety, BDD.	Obsessions with food, weight, a thin body image, compulsive exercise, depression & anxiety, BDD.
Physical symptoms	Usually extremely underweight, unhealthy figure, physical weakness, organ dysfunction, absent menstruation, memory loss, feeling faint.	Many within normal weight range for height & age,but can be underweight, physical weakness, organ dysfunction, absent menstruation, memory loss, feeling faint. Noticeable oral/dental

	Anorexia nervosa	Bulimia nervosa
Relationship with food	Avoid eating, goes on fasts or restrictive diet.	Goes through periods of binging, overeating, purging. Usually by vomitting, heavy use of laxative, diuretics.
Treatment	May require hospitalisation, outpatients & inpatients t/t options. dieticians, doctors, therapist & psychiatrist often part of t/t.	Unlikely to require hospitalisation, outpatients & inpatients t/t options. dieticians, doctors, therapist & psychiatrist often part of t/t.
Prognosis	Varies. Slight majority who seek t/t report full recovery in years to come. Upto 1/3rd still affected or struggle with relapses.	Varies. Slight majority who seek t/t report full recovery in years to come. Upto 1/3rd still affected or struggle with relapses.
Prevalence in	0.3-0.5%	1-3%

Anorexia nervosa/Bulimia nervosa



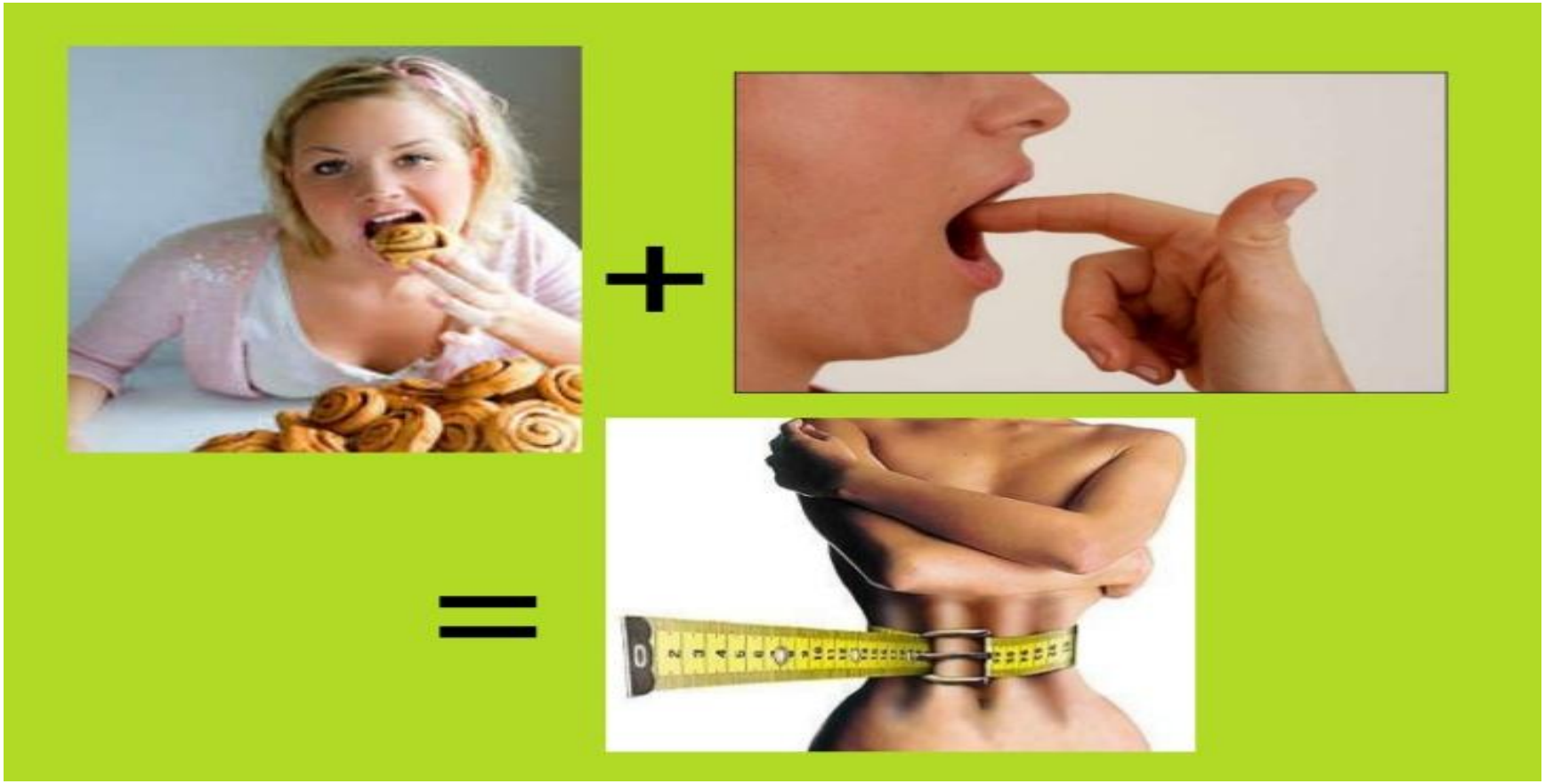
Areas Still Open to Research

- Continued efforts are necessary to define more carefully both binge eating & over eating in order to delineate the parameters of what is actually pathological.
- Compelling evidence is needed to separate underweight pts who binge and purge from normal weight persons who engage in these behaviours.

The Future

- Periodic meetings of members of the ICD-10 and DSM-5 eating disorder classification committees should occur, with exchange of research evidence for redefining and more carefully classifying the eating d/o.

Melanie C aka Sporty Spice found enormous fame in 1994 when the Spice Girls released the song “Wannabe.” At the time, Melanie C was only 20 years old and blames her age with her struggle with bulimia. Melanie C claims that with the sudden rise to fame also came the focus on the size of her body.



THANK YOU