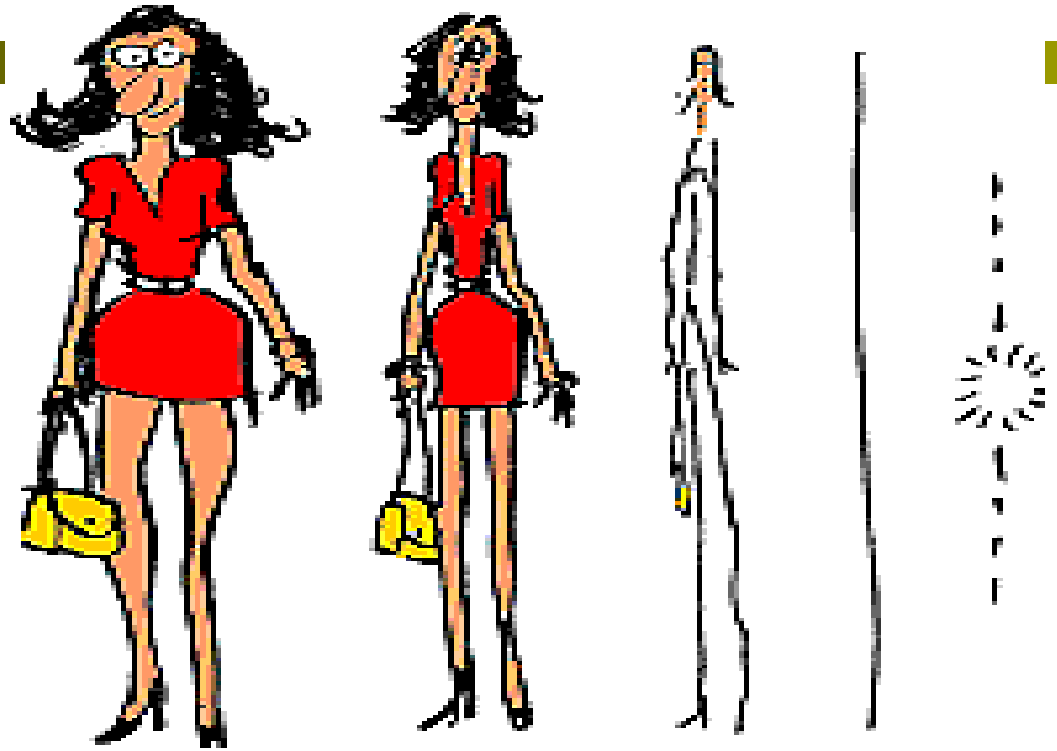
EATING DISORDERS



INTRODUCTION:

- Food is essential to life because it supplies needed nutrients and sources of energy. As such eating is a crucial self-regulatory activity. Society and culture have a great deal of influence on eating behaviors. Eating is a social activity; seldom does an event of any social significance occur without the presence of food.

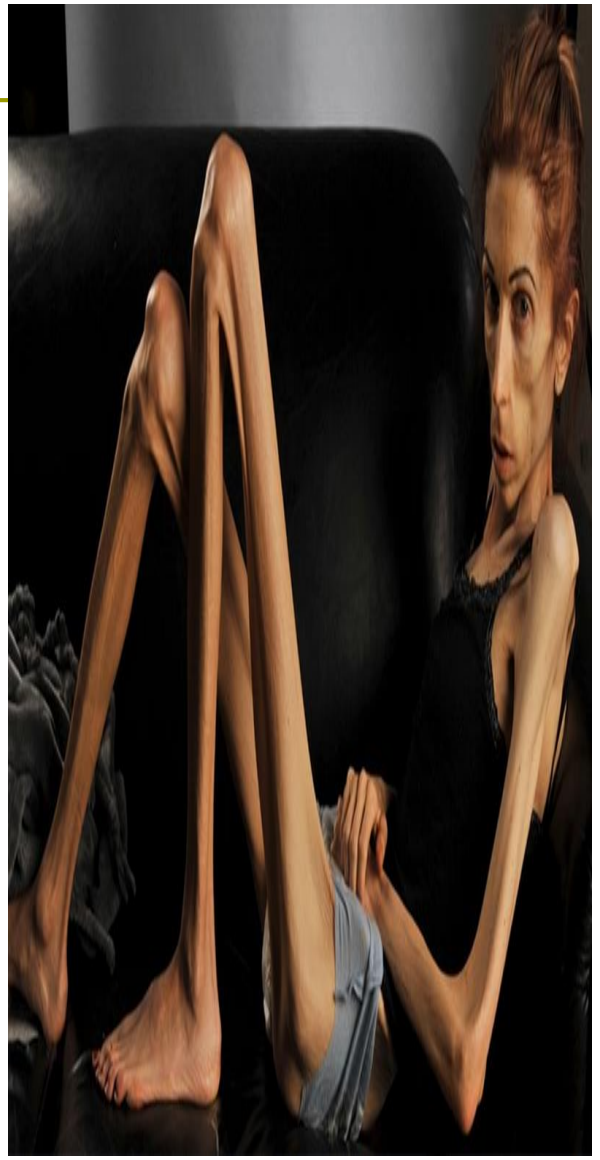
Types:

- Anorexia nervosa
- Bulimia nervosa
- Binge Eating Disorder
- Eating disorder NOS

Definition:

- The term anorexia nervosa is derived from the Greek term for “loss of appetite ”and a Latin word implying nervous origin.
- Anorexia nervosa is a syndrome characterized by three essential criteria.

1. Self-induced starvation to a significant degree
2. Relentless drive for thinness or a morbid fear of fatness; and
3. Presence of medical signs and symptoms resulting from starvation.



Epidemiology:

- Eating disorders of various kinds have been reported in upto 4% of adolescent and young adult students.
- The most common ages of onset of anorexia nervosa are the midteens, but upto 5%of anorectic patients have the onset of the disorder in their early 20s.
- Majority are females and most common age of onset is between 14&18 years.

Risk factors

- Excess dieting
- Unintentional weight loss after an illness
- Weight gain
- Puberty
- Transition periods in life- going to new school, etc
- Working pattern-athletics, models
- Media

Etiology:

- Genetics
- Some evidence points to higher concordance rates in monozygotic twins than in dizygotic twins.
- Neurobiological factors- serotonin, norepinephrine
- Psychological factors- low self worth, esteem, perfectionist
- Sociocultural factors- peer pressure, modern culture,

Comorbidity

- Anorexia nervosa is associated with depression in 65%of cases.
- Social phobia in 34%of cases
- Obsessive-compulsive disorder in 26%of cases.

ICD-10 CRITERIA

- Body weight is maintained at least 15% below that expected (either lost or never achieved), or body-mass index is 17.5 or less. Prepubertal patients may show failure to make the expected weight gain during the period of growth.

- The weight loss is self-induced by avoidance of “fattening foods” .

Cont…

- There is body image distortion in the form of a specific psychopathology whereby a **dread of fatness** persists as an intrusive, overvalued idea and the patient imposes a low weight threshold on himself or herself.

- A widespread endocrine disorder involving the hypothalamic-pituitary-gonadal axis is manifest in **women as amenorrhoea** and in **men as a loss of sexual interest** and **potency.**

Cont…

- If onset is prepubertal, the sequence of **pubertal events is delayed or even arrested** (growth ceases;in girls the breasts do not develop and there is a amenorrhoea; in boys the genitals remain juvenile) with recovery ,puberty is often completed normally,but the menarche is late.

SIGNS AND SYMPTOMS

- Mouth sores
- Pharyngeal trauma
- Dental caries
- Heartburn, chest pain
- Esophageal rupture
- Impulsivity:
  - Stealing
  - Alcohol abuse
  - Drugs/tobacco
- Muscle cramps
- Weakness
- Bleeding or easy bruising
- Irregular periods
- Fainting
- Swollen parotid glands
- hypotension

Treatment:

- Hospitalization
- PHYSICAL EXAM—anorexia
- Vital signs
- Skin and extremity evaluation
  - Dryness, bruising, lanugo
- Cardiac exam
  - Bradycardia, arrhythmia
- Abdominal exam
- Neuro exam
  - Evaluate for other causes of weight loss or vomiting (brain tumor)

Assessment

- Maximum height and weight
- Exercise habits: intensity, hours per week
- Stress levels
- Habits and behaviors: smoking, alcohol, drugs, sexual activity
- Eating attitudes and behaviors
- Review of systems

HOSPITALIZATION

- Severe malnutrition (75%)
- Dehydration
- Electrolyte disturbances
- Cardiac dysrhythmia
- Arrested growth and development
- Physiologic instability
- Failure of outpatient treatment
- Acute psychiatric emergencies
- Comorbid conditions that interfere with the treatment of the ED

NUTRITION

- Goal: regain to goal of 90-92% of IBW
- Inpatient treatment varies by facility
  - Oral liquid nutrition
  - Nasogastric tube feedings
  - Gradual caloric increase with “regular” food
  - Parenteral nutrition rarely indicated

OUTCOME

- 50% good outcome
  - Return of menses and weight gain
- 25% intermediate outcome
  - Some weight regained
- 25% poor outcome
  - Associated with later age of onset
  - Longer duration of illness
  - Lower minimal weight
  - Overall mortality rate: 6.6%

LABORATORY ASSESSMENT

- CBC: anemia
- Electrolytes, BUN/Cr
- Mg, Calcium
- Albumin, serum protein
- Thyroid function tests
- Serum prolactin
- Bone density

Pharmacotherapy:

- Tricyclic antidepressants (e.g.Fluoxetine,amitriptyline, clomipramine)
- Cyproheptadine(Periactin)- Usual dose is 8-32mg/day in divided doses.
- Olanzepine (Zyprexia)

Psychotherapy:

- CBT
- Individual Psychotherapy
- Family therapy

Nursing Diagnosis:

- Imbalanced nutrition less than body requirements
- Ineffective denial
- Disturbed body image/low self-esteem

Nursing Interventions:

- Monitor daily caloric intake and electrolyte status patients should not gain too much weight too quickly.
- Observe patients for signs of purging pr other compensation for food consumed.
- Monitor activity level, and encourage appropriate levels of activity for patient.
- Weight daily
- Encourage use of therapies or support groups to attain healthy weight and prevent relapse.
- Promote patient decision making concerning things besides food.
- Promote positive self-concept and perceptions of body as well as interactions with others.

Bulimia Nervosa

- Bulimia derived from Latin word meaning ravenous hunger
- An eating disorder characterized by episodes of recurrent binge, chaotic eating of large quantities of food within short time, followed by intentional purging in the form of induced vomiting.

Bulimia Nervosa

- Bulimia
  - Occurs in 1-5% of high school girls
  - As high as 19% in college women

SUBTYPES

- Restricting
  - Restriction of intake to reduce weight
- Binge eating/purging
  - May binge and/or purge to control weight
  - Considered anorexic if she is 15% below ideal body weight

Risk factors

- Dieting
- Puberty
- Increased peer pressure
- Transition period
- Some special fields like athletics

Causes

- Psychological causes: stressful situation, self depreciation, insecurity
- Deep psychological issues
- Environmental factors
- Neurochemical factors- serotonin chemical receptor may influence eating behavior as it regulates food intake
- Socio cultural factor- modernised culture

Diagnostic criteria:ICD

- There is a persistent preoccupation with eating, and an irresistible craving for food; large amounts of food are consumed in short periods of time.
- 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 suppressants ,thyroid preparations of diuretics. When bulimia occurs in diabetic patients they may choose to neglect their insulin treatment.

Cont…

- The psychopathology consists of a morbid dread of fatness and the patient sets herself a sharply defined weight threshold.
- 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 form with a moderate loss of weight and a transient phase of amenorrhoea.

Bulimic cycle:

- Some might binge and purge several times a day.
- Bulimics may go through a severe binge/purge cycle, i.e. vary devastating to the body.
- They may hide or hoard food and over eat when stressed or worried or upset.
- The bulimic may feel a loss of control during a binge and consume very large quantities of food.
- Some may eat socially but may be bulimic in private.
- Bulimic may appear to be underweight, normal weight or even over weight.

Cont…

- Early bulimic is completely different in ‘how much’ they purge, some binge some do not. At times when the urge ‘hits’ they will go to great lengths to purge as if an uncontrollable urge or force is making them to do so.
- The chemicals released during purge may lead to extreme dehydration and electrolyte imbalances.

Clinical manifestations

- All previous elements plus:
  - Erosion of the teeth enamel

Physical manifestations

- Abnormal bowel functioning
- Swollen salivary glands
- Mouth sores
- Bloating
- Dehydration
- Fatigue

Emotional manifestations

- Constant dieting
- Binging
- Eating until point of discomfort
- Unhealthy focus on body shape
- Hoarding for food
- Guilty feelings

Treatment:

- Cognitive behavioral therapy is effective
- Pharmacotherapy—high success rate
  - Fluoxetine—studies reveal up to a 67% reduction in binge eating and a 56% reduction in vomiting
  - Topiramate—reduced binge eating by 94% and average wt. loss of 6.2 kg

Residential treatment offers:

- Long term support
- Counseling

Nutritional therapy

- Guidance about healthy diet

Coping skills

- Healthy lifestyle
- Positive health status

COMPLICATIONS

- Fluid and electrolyte imbalance
  - Hypokalemia
  - Hyponatremia
  - Hypochloremic alkalosis
  - Elevated BUN
  - Inability to concentrate urine
  - Decreased GFR
  - ketonuria

- **Cardiovascular**
  - Bradycardia
  - Orthostatic hypotension
  - Dysrhythmias
  - ECG abnormalities
    - Prolonged QT
    - T-wave abnormalities
    - Conduction defects
    - Low voltage
  - Pericardial effusion

- **Gastrointestinal**
  - Constipation
  - Delayed gastric emptying
  - Esophagitis
  - Esophageal or stomach rupture
  - Fatty infiltration or necrosis of liver
  - Acute pancreatitis
  - Gallstones

- Dermatologic
  - Acrocyanosis
  - Brittle hair and nails
  - Lanugo
  - Hair loss
  - Pitting edema

- Endocrine
  - Growth retardation and short stature
  - Delayed puberty
  - Amenorrhea
  - Low T3 syndrome
  - Hypercortisolism

- **Hematologic**
  - Bone marrow suppression
    - Mild anemia
    - Leukopenia
    - Thrombocytopenia

Binge Eating Disorder (BED)

- Must have at least 3 of the 5 criteria
  - Eating much more rapidly than normal
  - Eating until uncomfortably full
  - Eating large amounts of food when not feeling physically hungry
  - Eating alone because of embarrassment
  - Feeling disgusted, depressed or very guilty over overeating

Epidemiology

- Binge Eating Disorder (BED)
  - Occurs more commonly in women
  - Depending on population surveyed, can vary from 3% to 30%

Epidemiology:

- Eating Disorder NOS (ED-NOS)
  - Occurs in 3-5% of women between the ages of 15 and 30 in Western countries
  - As minority culture groups assimilate into American society, rates increase

Eating Disorder NOS

- 1. All criteria for anorexia nervosa except has regular menses
- 2. All criteria for anorexia nervosa except weight still in normal range
- 3. All criteria for bulimia nervosa except binges < twice a week or for < 3 months
- 4. Patients with normal body weight who regularly engage in inappropriate compensatory behavior after eating small amounts of food (ie, self-induced vomiting after eating two cookies)
- 5. A patient who repeatedly chews and spits out large amounts of food without swallowing

Nursing Diagnosis:

- Imbalanced nutrition :less than body requirements
- Imbalanced nutrition: More than body requirements
- Ineffective individual coping
- Disturbed self- esteem
- Powerlessness
- Disturbed body image

Obesity:

- Obesity is considered as a symbol of wealth and social status in some cultures. It serve more a visible signifier of ‘lust for life.’ It is also seen as a ‘symbol’ within a system of ‘prestige.’

- Obesity derived from the Latin word, obesus, which means, ’shout, fat or plump’, ‘eus’ is the past participle of edere(to eat), with ‘ob’ added to it.

Cont…

- Obesity refers to an excess of body fat. In healthy individuals, body fat accounts for approximately 25% of body weight in women and 18%in men.

Risk factors:

- Coronary heart disease
- Type 2 diabetes
- Sleep apnea
- Secondary to disease- hypothyroidism, depression.
- Hypertension
- Advanced age
- Family history
- Poverty
- Over eating ,sedentary habits (inactivity)
- Medications-steroids ,hormonal drugs, antidepressants

Etiology:

- Overeating
- Environmental factors- lifestyle, eating habits
- Sex- men have more muscle fibers than women and burn more calories than women even at rest so women are more prone
- Age- people tend to loose more muscle fibers and gain fat as age advances
- Decreased physical activity
- Drugs- antipsychotics, hormones
- Stressful mentality- depression, anger, hopelessness, boredom
- Pregnancy

Clinical Diagnosis:

- Measuring body mass index (BMI)
- Waist circumference
- Presence of risk factors
- Co-morbidities

BMI

- Under weight: BMI is less than 18.5
- Normal weight: BMI is between 18.5-24.9
- Over weight: BMI is between 25.0-29.9
- Obese: BMI is between 30.0-39.0
- Severely or morbidly obese-BMI 40.0 or higher.
- Morbid obese –BMI 35.0 or 40.0in the presence of atleast one other significant comorbidity.

Treatment

- Weight to height tables
- Body fat percentage- men with more than 25% fat and women with more than 30% fat considered obese
- Skin fold thickness
- BMI- $\frac{\text{weight}}{(\text{height})2}$

Treatment:

- Diet: low caloric diet, ketogenic diet are high-protein (500cal), low carbohydrate
- Consume fruits and vegetables-5servings/day
- Eat less do more physical activities-5days a week to increase heart and lung function
- It should be supplemented with vitamins, particularly iron, folic acid, zinc and vitamin B6.
- Pharmacotherapy: Orlistat (reduces intestinal fat absorption)-120mg/TDS

Assignment

- Difference between anorexia nervosa and bulimia nervosa