Chapter 8: Eating and Sleep–Wake Disorders

Eating Disorders: An Overview, Part 1

- Two major types of DSM-5 eating disorders
  - Anorexia nervosa and bulimia nervosa
  - Severe disruptions in eating behavior
  - Weight and shape have disproportionate influence on self-concept
    - Extreme fear and apprehension about gaining weight
  - Strong sociocultural origins—Westernized views
    - Emphasize on thinness

Eating Disorders: An Overview, Part 2

- Additional DSM-5 eating disorder: Binge eating disorder
  - Involves disordered eating behavior but may involve fewer cognitive distortions about weight and shape
- Obesity—considered a symptom of some eating disorders but not a disorder in and of itself
  - A growing epidemic
Eating Disorders: An Overview, Part 3

- Becoming big concern
- Prevalence Rate
  - Age 15-19; Age 20-24
  - Over 8 million diagnosed with ED
  - 90% young women
  - 9% of girls had eating disorder
  - Scary stats with precursors of ED

Anorexia Nervosa

- “anorexia nervosa” = lack of appetite because of nerves
- Diagnostic Criteria
  - Dread of being fat
  - Refusal to maintain a minimally normal body weight
  - Compulsion to be thin
  - Fear of gaining weight or being fat
  - Substantial weight loss
  - < 85% of ideal body weight
  - < 17.5 BMI

Anorexia Nervosa

- Distorted external and internal perceptions of the body
  - Undue influence of body shape on self-evaluation
  - Focus on one part of the body
  - Denial of seriousness of current low body weight
  - Overestimate of body width
Anorexia Nervosa

- Amenorrhea

**Associated Features**
- Inflexibility in thinking and behaving
- Perfectionism
- View achievements in black and white terms
- Cognitive Difficulties
- Poor Interpersonal Relationships
- "boundless energy"
- alexithymia

Anorexia Nervosa

**Types of AN**
- Restricting Type
- Binge-Eating/Purging Type

**Prevalence**
- 0.2-0.3% for females
- 0.5-0.8% for adolescent females
- 0.02% for males
- Increasing in recent years

Anorexia Nervosa

**Course**
- Age of onset is between 13 and 20 years
- Begins with dieting
- Seriously restricts food intake
- Number of physical complications and even death if not treated
  - Starving body borrows energy from internal organs, leading to organ damage
  - Most serious consequence is cardiac damage, which can lead to heart attack and death
Anorexia Nervosa

- Sometimes remits after 12 months, but usually continues for years
  - Do the symptoms go away with treatment?
  - Nutritionally, clients can recover within 2-3 years
  - Recovery rates
- Long-term problems

Etiology

- Genetics
- Gender additive model
- Dieting

Relationship between Teenage Dieting and Obesity
Anorexia Nervosa

- Weight Loss
- Dysfunctional Beliefs About Appearance
- Societal Pressure
- Media Influence

Figure 8.1 Male and female rating of body size

Anorexia Nervosa

- Sexual Abuse
- Chaotic Family Life
- Perfectionism
- Need for Control
- Early Maturation Parental Influence
- Neurological Findings
- An evolutionary perspective
- Sport or Group Participation
Anorexia Nervosa

- Treatment for AN
  - Efficacy for tx is limited due to dearth of studies
  - Good program:
    - Multidisciplinary
    - Levels of treatment
    - Multidimensional
  - Goals of treatment
    - Keep client alive
    - Establish adequate nutrition

- Treat physical complications
- Correct abnormal eating habits
- Change family interaction pattern
- Enhance self-control, identity, and autonomy
- Correct defects in affect/behavior regulation

- Starts w/hospitalization
  - Low body weight/brain dysfunction connection
  - Fed regularly in hospital
    - Needs to be monitored
    - Client needs to gain 1/4 to 1/2 pound per day
    - Some hospitals use strict behavioral program to increase the likelihood of appropriate feeding
  - Involuntary hospitalization vs. compulsory treatment

- Family Therapy
  - Parents should not be responsible for client care
  - Parents can see client after client begins to gain weight
  - Focus is on re-establishing appropriate parent-child interactions
- Individual Therapy
  - CBT
- Group Therapy
- Medication
Bulimia Nervosa

- "hunger of an ox"

- Diagnostic Criteria
  - Binge Eating
    - Eating in a discrete period of time an amount of food that is definitely larger than most people would eat over a comparable time period
    - Feeling out of control while eating
      - Objective vs. Subjective binges
    - Recurring inappropriate compensatory behavior designed to prevent weight gain

- Both binge eating and compensatory behavior occur for a minimum 2x/wk for at least 3 months
- Self-evaluation is unduly influenced by body shape and weight

- Reasons for Binge Eating
  - Dysphoria
  - Feeling anxious or tense
  - Craving certain foods
  - "can't control appetite"

- Hunger
- Insomnia

- Prevalence Rates
- Age of Onset
- Associated Features
  - Preoccupied with appearance, body image, sexual attractiveness
  - Preoccupied with how others perceive them
  - Alcohol & illicit drug use may help maintain BN
  - Drive for thinness
  - Relationship Problems
Bulimia Nervosa
- Perfectionism
- Excessive drive for symmetry and exactness
- Secretive behaviors
- Homosexuality in males
- Purging methods can result in severe medical problems
  - Erosion of dental enamel, electrolyte imbalance
  - Kidney failure, cardiac arrhythmia, seizures, intestinal problems, permanent colon damage

Gender Differences
Racial Differences
Comorbid Disorders
Bulimia: Continuous or Discontinuous?

Etiology
- Binge Eating
- History of Weight Fluctuation
- Body Mass
- Frequent Exercise and/or Dieting
- Negative Self-Evaluation
- Perceived Pressure to be Thin
- Dysfunctional Cognitions
- Parental factors
- High Levels of Neuroticism
Bulimia Nervosa

- Perfectionism
- Low self-esteem
- Early maturation
- Athletic participation
- Modeling
- Peer Pressure and Teasing
- Perfectionism
- Genetic Evidence
- Neurobiological Findings
- Role of Puberty

Bulimia Nervosa

- Treatment for BN
  - Medical complications need to be addressed first
  - Hospitalization
    - Not automatic, but there are times when it is necessary
  - Medication
  - Therapy
    - Tends to be effective
    - Statistics related to recovery

Bulimia Nervosa

- CBT
  - Components of CBT
    - Three Phases:
      - Break the Binge-Purge Cycle and Eliminate Restrictive Eating
      - Focus on Broad Areas of Behavior and Attitudes, Especially Dysfunctional Beliefs
      - Relapse Prevention
  - Pretreatment variables associated with poor outcome
  - Pretreatment variables associated with drop out
Bulimia Nervosa

- Interpersonal Therapy
- Group Therapy
- Family Therapy
- Combined Treatment

- A brief word on preventing Eating Disorders

Binge Eating Disorder: Overview and Defining Features, Part 1

- New disorder in DSM-5
- Binge eating without associated compensatory behaviors
- Associated with distress and/or functional impairment (e.g., health risk, feelings of guilt)

Binge-Eating Disorder: Overview and Defining Features, Part 2

- Associated features
  - Many persons with binge-eating disorder are obese
  - Some, but not all, have concerns about shape and weight
  - Often older than bulimics and anorexics
  - More psychopathology versus non-binging obese people
A Quick Word About Obesity and Obesity Treatment

- Definition:
  - 25% over ideal body weight as defined by the Metropolitan Life Scales
  - OR Body Mass Index (BMI) of > 30
- 60% of Americans are overweight
  - BMI 25-30
- In 2008, 33.8% of adults in the United States were obese; 37.5% in 2010; 42.4% in 2020

Mortality rates
- Are close to those associated with smoking
- 400,000 annual deaths from obesity

Kentucky statistics

Increasing more rapidly in children/teens

Obesity also growing rapidly in developing countries

Obesity and Disordered Eating Patterns, Part 1

- Obesity and night eating syndrome
  - Occurs in 7–19% of treatment seekers
  - Occurs in 55% of individuals seeking bariatric surgery
  - Features
    - Consume 1/3+ of daily caloric intake after dinner
    - Get up during the night to eat
    - Patients are wide awake and do not binge eat
    - Often not hungry, skip breakfast the next morning
Obesity and Disordered Eating Patterns, Part 2

- Causes
  - Obesity is related to technological advancement
  - Genetics account for about 30% of obesity cases
  - Biological and psychosocial factors contribute as well

A Quick Word About Obesity and Obesity Treatment

- Controversy over obesity treatment
  - Most treatments fail
  - Dieting and failure have huge psychological costs
  - Morbidity and mortality have a curvilinear relationship with weight
  - Dieting is not advisable
- Successful treatments

Sleep Disorders: An Overview

- Two major types of sleep disorders
  - Dyssomnias
    - Difficulties in amount, quality, or timing of sleep
  - Parasomnias
    - Abnormal behavioral and physiological events during sleep
The Importance of Sleep

- Just a few hours’ sleep deprivation decreases immune functioning
- Sleep deprivation affects all aspects of daily functioning—energy, mood, memory, concentration, attention
- Sleep loss may bring on feelings of depression in nondepressed individuals
  - Paradoxically, can have antidepressant effects in depressed individuals

Sleep Disorders—Insomnia, Part 1

- Dyssomnias
  - Insomnia Disorder
    - One of the most common sleep disorders
    - Persistent difficulty in falling asleep, remaining asleep, or achieving restive sleep
    - Microsleeps
    - Lasts more than 1 month
    - Only diagnosed as a sleep disorder if it is not better explained by a different condition (e.g., generalized anxiety disorder)
  - Associated Features
  - Prevalence

Sleep Disorders—Insomnia, Part 2

- Facts and statistics
  - Often associated with medical and/or psychological conditions
  - Affects females twice as often as males
- Associated features
  - Unrealistic expectations about sleep
  - Believe lack of sleep will be more disruptive than it usually is
**DSM-5 Criteria: Insomnia Disorder, Part 1**

Features of insomnia disorder include:
- A predominant complaint of dissatisfaction with sleep quantity or quality associated with:
  - (1) difficulty initiating sleep
  - (2) difficulty maintaining sleep
  - (3) early-morning awakening with inability to return to sleep
- Sleep disturbance causes significant distress in social, occupational, educational, academic, behavioral, or other areas of functioning

**DSM-5 Criteria: Insomnia Disorder, Part 2**

- The sleep difficulty occurs despite adequate opportunity for sleep
- The insomnia is not better explained by and does not occur exclusively during the course of another sleep–wake disorder and is not attributable to the effects of a substance (e.g., a drug abuse) or a coexisting mental disorder or medical conditions

**Sleep Disorders—Hypersomnolence Disorder Part 1**

- Hypersomnolence Disorder
  - Pattern of excessive sleepiness during the day that continues for at least one month
  - Difficulty awakening
  - Sleep episodes during the day, almost every day
  - Not accounted for by poor sleep the night before
  - Associated Features
  - Prevalence Rate
**DSM-5 Criteria: Hypersomnolence Disorder, Part 1**

Features of hypersomnolence disorder include:
- Self-reported excessive sleepiness despite a main sleep period lasting at least 7 hours, with at least one of the following symptoms:
  1. Recurrent periods of sleep or lapses into sleep within the same day
  2. A prolonged main sleep episode of more than 9 hours per day that is non-restorative (i.e., unrefreshing)
  3. Difficulty being fully awake after abrupt awakening
- The hypersomnolence occurs at least three times per week for at least 3 months

**DSM-5 Criteria: Hypersomnolence Disorder, Part 2**

- The hypersomnolence is accompanied by significant distress or impairment in cognitive, social, occupational, or other important areas of functioning
- The hypersomnolence is not better explained by and does not occur exclusively during the course of another sleep disorder, is not attributable to the physiological effects of a substance (e.g., a drug abuse), and cannot be adequately explained by coexisting mental and medical disorders

**Sleep Disorders—Narcolepsy Part 1**

- **Narcolepsy**
  - Characterized by sudden, irresistible sleep episodes at all times of the day
  - Must occur at least daily over the course of 3 months
  - Needs to have one of the following:
    - Cataplexy
    - Hypocretin deficiency
  - Going into REM sleep abnormally fast (<15 minutes), as evidenced by polysomnographic measures
Sleep Disorders—Narcolepsy Part 2

- Associated Features
  - Sleep paralysis
  - Hypnagogic hallucinations
- Prevalence rates
  - Affects about 0.03–0.16% of the population
  - Equally distributed between males and females
  - Onset during adolescence
- Etiology
  - Typically improves over time

**DSM-5 Criteria: Narcolepsy, Part 1**
(2 of 2)

- The presence of one of the following:
  1. episodes of cataplexy occurring at least a few times a month that are either
    - (a) brief (seconds to minutes) episodes of sudden bilateral loss of muscle tone with maintained consciousness, precipitated by laughter or joking or
    - (b) spontaneous grimaces or jaw-opening episodes with tongue thrusting or a global hypotonia, without any obvious emotional triggers

**DSM-5 Criteria: Narcolepsy, Part 2**

- Hypocretin deficiency not observed in the context of acute brain injury, inflammation, or infection
- Nocturnal sleep polysomnography showing REM sleep latency less than or equal to 15 minutes or a multiple sleep latency test showing a mean sleep latency less than or equal to 8 minutes and two or more sleep onset REM periods
The Dyssomnias: Overview of Breathing-Related Sleep Disorders

- Include three different disorders previously classified as parts of the same disorder:
  - Obstructive sleep apnea hypopnea
    - Airflow stops, but respiratory system works
  - Central sleep apnea (CSA)
    - Respiratory systems stops for brief periods
  - Sleep-related hypoventilation: Decreased breathing during sleep not better explained by another sleep disorder

DSM-5 Criteria: Obstructive Sleep Apnea Hypopnea (1 of 2)

Features of obstructive sleep apnea hypopnea include:

- Evidence by polysomnography of at least five obstructive apneas or hypopneas per hour of sleep and either
  (a) nocturnal breathing disturbances (snoring, snorting/gasping, or breathing pauses) or
  (b) daytime sleepiness, fatigue, or unrefreshing sleep despite sufficient opportunities to sleep that is not better explained by another mental disorder or medical condition

DSM-5 Criteria: Obstructive Sleep Apnea Hypopnea (2 of 2)

- Evidence by polysomnography of 15 or more obstructive apneas and/or hypopneas per hour of sleep regardless of accompanying symptoms
Features of central sleep apnea include the following:
- Evidence by polysomnography of five or more central apneas per hour of sleep
- The disorder is not better explained by another current sleep disorder

Sleep Disorders—Sleep Apnea
- Breathing-Related Sleep Disorders
  - Obstructive Sleep Apnea Syndrome
    - Repeated episodes of complete or partial obstruction of breathing during sleep
    - Associated Features
      - Persons are usually minimally aware of apnea problem
      - Often snore, sweat during sleep, wake frequently
      - May have morning headaches
      - May experience episodes of falling asleep during the day (due to poor sleep quality at night)

Sleep Disorders—Sleep Apnea
- Prevalence Rates
**DSM-5 Criteria: Sleep-Related Hypoventilation**

Features of sleep-related hypoventilation include the following:
- Polysomnography demonstrates episodes of decreased respiration associated with elevated CO2 levels
- The disorder is not better explained by another current sleep disorder

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**Sleep Disorders**

- **Circadian Rhythm Disorder**
  - Circadian rhythm is grossly disturbed due to a mismatch between it and the sleep demands imposed by the environment
  - Disturbed sleep (e.g., either insomnia or excessive sleepiness) leading to distress and/or functional impairment (e.g., significantly decreased productivity at work)
  - Due to brain’s inability to synchronize day and night

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**DSM-5 Criteria: Circadian Rhythm Sleep–Wake Disorder (1 of 2)**

Features of circadian rhythm sleep–wake disorders include the following:
- A persistent or recurrent pattern of sleep disruption that is primarily due to an alteration of the circadian system or to a misalignment between the endogenous circadian rhythm and the sleep–wake schedule required by an individual’s physical environment or social or professional schedule
**DSM-5 Criteria: Circadian Rhythm Sleep–Wake Disorder (2 of 2)**

- The sleep disruption leads to excessive sleepiness, insomnia, or both
- The sleep disturbance causes clinically significant distress or impairment in social, occupational, and other important areas of functioning

**Circadian Rhythm Sleep–Wake Disorder**

- Nature of circadian rhythms and body’s biological clock
  - Circadian rhythms—do not follow a 24-hour clock
  - Suprachiasmatic nucleus
    - Brain’s biological clock, stimulates melatonin
- Examples of circadian rhythm sleep–wake disorders
  - Shift work type—job leads to irregular hours
  - Familial type—associated with family history of dysregulated rhythms

**Medical Treatments for Sleep Disorders, Part 1**

- Insomnia
  - Benzodiazepines and over-the-counter sleep medications
  - Prolonged use
    - Can cause rebound insomnia, dependence
    - Best as short-term solution
- Hypersomnia and narcolepsy
  - Stimulants (i.e., Ritalin)
  - Cataplexy usually treated with antidepressants
Medical Treatments for Sleep Disorders, Part 2

- Breathing-related sleep disorders
  - May include medications, weight loss, or mechanical devices
- Circadian rhythm sleep–wake disorders
  - Phase delays
    - Moving bedtime later (best approach)
    - Phase advances
  - Moving bedtime earlier (more difficult)
  - Use of very bright light
    - Trick the brain’s biological clock

Psychological Treatments for Sleep Disorders, Part 1

- Cognitive behavioral therapy for insomnia (CBT-I)
  - Psychoeducation about sleep
  - Changing beliefs about sleep
  - Extensive monitoring using sleep diary
  - Practicing better sleep-related habits

Psychological Treatments for Sleep Disorders, Part 2

- Relaxation and stress reduction
  - Reduces stress and assists with sleep
  - Modifies unrealistic expectations about sleep
- Stimulus control procedures
  - Improved sleep hygiene—bedroom is a place for sleep
  - For children—setting a regular bedtime routine
The Parasomnias: Nature and General Overview

- Nature of parasomnias
  - The problem is not with sleep itself
  - Problem is abnormal events during sleep, or shortly after waking
- Two classes of parasomnias
  - Those that occur during REM (i.e., dream) sleep
  - Those that occur during non-REM (i.e., nondream) sleep

The Parasomnias: Non-REM Sleep Arousal Disorder

- New DSM-5 Diagnosis
- Recurrent episodes of either/or:
  - Sleep terrors
  - Recurrent episodes of panic-like symptoms during non-REM sleep
  - Sleepwalking
- Individual has no memory of the episodes

DSM-5 Criteria: Non-REM Sleep Arousal Disorders (1 of 2)

Features of nonrapid eye movement sleep arousal disorders include the following:
- Recurrent episodes of incomplete awakening from sleep usually occurring during the first third of the major sleep episode, accompanied by either sleepwalking or sleep terrors
- No or little dream imagery is recalled
- Amnesia for the episodes is present
DSM-5 Criteria: Non-REM Sleep Arousal Disorders (2 of 2)

- The episodes cause clinically significant distress or impairment in social, occupational, or other important areas of functioning, are not attributable to the physiological effects of a substance (e.g., drug abuse), and cannot be explained by coexisting mental and medical disorders.

DSM-5 Criteria: Nightmare Disorder (1 of 2)

Features of nightmare disorder include the following:
- Repeated occurrences of extended, extremely dysphoric, and well-remembered dreams that generally occur during the second half of the major sleep episode.
- On awakening from the dysphoric dreams, the person rapidly becomes oriented and alert.
- The sleep disturbance causes significant distress or impairment in social, occupational, or other important areas of functioning.

DSM-5 Criteria: Nightmare Disorder (2 of 2)

- The nightmare symptoms are not attributable to the effects of a substance (e.g., drug abuse) and cannot be explained by coexisting mental and medical disorders.
Parasomnias—Nightmare Disorder

Part 1

- Nightmare Disorder
  - Recurrent awakenings from sleep because of frightening nightmares
  - Not adequately explained by other conditions
- Facts and associated features
  - 10–50% of children and 1% of adults have nightmares
  - Occurs during REM sleep
  - Dreams often awaken the sleeper
  - Problem is more common in children than adults

Part 2

- Treatment
  - May involve antidepressants and/or relaxation training

Parasomnias—Sleep Terror Disorder

- Sleep Terror Disorder
  - Recurrent episodes of sleep terror that result in abrupt awakenings
  - Often found in children
  - Prevalence rates
More about Sleep Terrors

- **Facts and associated features**
  - More common in children (~6%) than adults
  - Child cannot be easily awakened during the episode
  - Child has little memory of it the next day

- **Treatment – a wait-and-see posture**
  - Scheduled awakenings prior to the sleep terror
  - Severe cases
    - Antidepressants (i.e., Imipramine) or benzodiazepines

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**DSM-5 Criteria: REM Sleep Behavior Disorder, Part 1**

- Features of rapid eye movement sleep behavior disorder include the following:
  - Repeated episodes of arousal during sleep associated with vocalization and/or complex motor behaviors
  - Behaviors arise during REM sleep and therefore usually occur greater than 90 minutes after sleep onset and are more frequent during the later portions of the sleep period, and uncommonly occur during daytime naps
  - Upon awakening from these episodes, the individual is completely awake, alert, and not disoriented

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**DSM-5 Criteria: REM Sleep Behavior Disorder, Part 2**

- Either of the following: (1) REM sleep without atonia on polysomnographic recording or (2) a history suggestive of REM sleep behavior disorder and an established synucleinopathy diagnosis (e.g., Parkinson’s disease)
- The behaviors cause significant distress or impairment in social, occupational, or other important areas of functioning
- The disturbance is not attributable to the physiological effects of a substance (e.g., drug abuse) and cannot be explained by other mental and medical disorders
REM Sleep Behavior Disorder

- New diagnosis in DSM-5
  - Used to be Sleepwalking disorder
- Repeated episodes of arousal during sleep associated with vocalization and/or complex motor behaviors
- Causes impairment or distress
  - Often, major problem is injury to self or sleeping partner

More about Sleep Walking

- Sleep walking disorder—somnambulism
  - Occurs during non-REM sleep
  - Usually during first few hours of deep sleep
  - Person must leave the bed
- Facts and associated features
  - Problem is more common in children than adults
  - Problem usually resolves on its own without treatment
  - Seems to run in families
  - May be accompanied by nocturnal eating

References

References

References


