Chapter 9

ADOLESCENCE
Body and Mind
Puberty

- Rapid physical growth and sexual maturation
  - Marks the ending of childhood
  - Girls
    - Growth of breasts & nipples, pubic hair and 1\textsuperscript{st} menstrual period, height growth
      - Average age 12.5
  - Boys
    - Growth of testicles, pubic hair & enlargement of penis and 1\textsuperscript{st} ejaculation of seminal fluid, Height growth
      - Average age 13
Puberty

- Caused by increases in hormones
  - Regulated by the hypothalamus *(in the brain)*
  - Signals the pituitary gland *(in the brain)* to produce hormones that signal the adrenal glands *(above the kidneys)* to produce more hormones
    - Called the HPA Axis
Sex Hormones

- Pituitary gland also activates the sex glands
  - Also called gonads
    - Affect the body’s shape and function & other hormones
      - Regulates stress & immunity
        - Possible reason for more schizophrenia in males & depression in girls
    - Ovaries
    - Testicles
      - Gonadotropin-releasing hormone: Causes the gonads to increase the production of estrogen and androgens
        - Estrogen: Estradiol (females)
        - Androgens: Testosterone (males)
Puberty and Sleep

- Puberty alters biorhythms
  - Circadian Rhythm
    - Causes delay
      - Making adolescents awake at midnight & sleepy in morning
Timing of Puberty

- Affected by genes, body fat, hormones & stress
  - Genes: 2/3 of variation is genetic
  - Body fat: children w/ large amounts of body fat begin puberty sooner
    - Possible causes: hormones & other additives in food
      - Leptin: affects appetite (more in females)

- Chronic Malnutrition delays onset of puberty
Timing of Puberty

- Stress
  - Causes increases in the production of puberty
  - Puberty tends to arrive earlier with stress
    - child’s parents are sick, addicted or divorced
  - Problems arise with early puberty
    - Females: lower self-esteem, more depression & poor body image
      - May result in earlier relationships and earlier sex
    - Males: increased aggression, lawbreaking & alcohol use
      - May result in earlier sex
Proper nourishment is critical once the body starts grow

- Adolescents consume more calories but get less of the vitamins and nutrients
  - Deficiencies of iron, calcium, zinc & other minerals
    - Needed for bone & muscle growth
    - Often iron deficiencies result in increased problems in adolescence
    - Calcium: very important for bone growth

- Body Image: impacts nutrition and often results in eating disorders
Eating Disorders

- Incidences of eating disorders increases during puberty
  - Anorexia
    - Refusal to eat to maintain normal body weight
    - Intense fear of weight gain
    - Disturbed body perception and denial of problems
    - Absence of menstruation
  - Bulimia: 1-3% of women during early adulthood
    - 3 times more common than anorexia
    - Compulsively overeats & then purges induced by vomiting or laxative use
Growth Change in puberty

- Sudden growth spurt
  - Increase in size in almost every body party
  - Increase body fat
  - Increase in muscle mass
  - Lungs triple in weight
  - Heart doubles in size

Skin changes: oiler & more prone to acne
Sexual Maturation

- Appearance of sex characteristics & increase in sexual thoughts & emotions
  - Development of Primary & Secondary Sex Characteristics
    - Primary: affects fertility
    - Secondary: doesn’t affect fertility
  - Sexual Activity
    - Hormones trigger sexual thoughts & emotions
    - Early Sexual activity: more hazardous today than in the past.
      - Teenage pregnancy
      - STD’s
      - Sexual Abuse
Brain develops from inside out, resulting in Limbic system developing before the prefrontal cortex
  - Intense emotions result in logical part of the brain shutting down
    - Drug & alcohol use, hazardous driving and risk taking

Myelination also leads to fast reaction time
- Increases in activity of dopamine system
  - Trigger great pleasure
  - Synaptic growth
Adolescent Thinking

- Adolescent Egocentrism
  - Focus on themselves to the exclusion of others
    - Overly focused on what others may think about them
    - See themselves as unique, special, and very socially significant

- Irrational Beliefs
  - Personal fable: belief that they are unique/destined to have a legendary life
  - Invincibility fable: belief they cannot be hurt
  - Imaginary Audience: belief that others are watching them, being overly interested in their appearance and behavior
Piaget’s Stage

- Formal Operational Thought
  - Increased systematic logic and the ability to think abstractly
  - Hypothetical Deductive Thought
    - Hypothetical: reasoning that includes propositions & possibilities that may not reflect reality
    - Deductive Reasoning: reasoning from a general principal through logical steps, to figure out or deduce specifics
  - Intuitive analytic thought
    - Intuitive thoughts: thought that arises from an emotion or hunch, beyond rational explanation & influence by past experience
    - Analytic thought: formal, logical thought involve rational analysis
Cognitive Development

- Electronic Technology
  - Digital Divide: gap between people who have computers and those who don’t
    - Benefits and Risks with electronic technology

- School Transition
  - Transition from middle school to high school
Chapter 10

Adolescence
Psychosocial Development
Erik Erikson’s 5th Psychosocial Crisis

- Identity vs. Role Confusion
  - Adolescents strive to define who they are.
  - Search for their own identity
    - Identity: consistent definition of one’s self as unique individual, in terms of roles, attitudes and aspiration

- Erikson saw the ultimate goal to reach identity achievement.
  - Attainment of identity, a person understands who they are as a unique individual
Role Confusion: a situation in which an adolescent does not seem to know or care what their identity is.

- Lack of commitment to any goals or values with apathy and indifference regarding every possible role
  - Escape typical social demands by watching tv, playing video games and sleeping
  - Respond with indifference to failure, demands & deadlines
Identity Development

- Identity foreclosure
  - Premature identity formation which occurs when an adolescent adopts parent’s or society’s roles and values, without questioning or analyzing
    - Might accept parents or cultures expectation of identity
    - Might adopt an oppositional, negative identity

- Identity Moratorium
  - A socially accept way to postpone identity achievement
    - College, military, volunteering, traveling
Identity Achievement

- Religion Identity
- Gender Identity
- Political/Ethnic Identity
- Vocation Identity
Adolescent Issues

- Relationships
  - Parent-Adolescent relationship often full of conflict usually bickering
    ▪ Important in family relationships
      ▪ Communication, Support, Connectedness & control
      ▪ Parental Monitoring is crucial
  - Other adults: teachers, community members, extended family
  - Peers
  - Intimate Relationships

- Sexuality
  - Sexual Orientation
  - Sex Education: learning from peers, parents & schools
  - Sexual Behavior

- Substance Abuse
Sadness & Depression

- Moodiness is typical for adolescents but most moodiness is not a mental health problem.

- However, self-esteem and self-confidence dips at during puberty & sometimes continues into high school.
  - Often turn to drugs, early sex and eating disorder
Depression

- Deep sadness and hopelessness
  - Loss of interest in activities that used to be pleasurable
  - Change in eating habits
  - Change in Sleeping habits

- Effects 20% of girls & 10% of girls

- Suicide
  - Suicidal Ideation: thinking about suicide, usually with some serious emotional & intellectual or cognitive concerns.
    - Adolescents: higher amounts of ideation but lower amounts of completed

Parasuicide: any potentially lethal action against the self that does not result in death
- Rates for adolescent is 6-20%
- Rates for completed suicide are 0.008%
- Less than 1 completed suicide per every 1,000 parasuicides
Four factors that are known to increase the risk of teen suicide:

- Availability of guns
- Use of alcohol & other drugs
- Lack of parental supervision
- A culture that condones suicide

Completed suicide is more common in males than females.
Anger & Aggression

- Angry outbursts are common in adolescents
  - Resistance to parental authority

- Some adolescence act out by breaking the law
  - Steal, destroy property & injure others
  - Juvenile Delinquent: anyone under the age of 18 who breaks the law
    - Minor offenses more common
Causes of Crime

- **Brain-based (in children)**
  - Neurological Impairment increases risk that a child will become a **Life-Course-Persistent Offender** (someone who breaks the law in childhood and after adolescence)
    - Short attention span, hyperactivity, inadequate emotional regulation, early and severe malnutrition, maternal smoking and child abuse

- **Contextual (in adolescence)**
  - Adolescence-Only offenders
  - Psychosocial cause
    - Adolescence-limited offender