THE ADOLESCENT AND FAMILY:

Growth and Development, Caring, Communication, Health Promotion, Wellness and Illness, Teaching and Learning and Consumer Education

Lecture Objectives:

- Differentiate between early, middle, and late adolescence.
- Discuss the biologic development of the adolescent with emphasis on pubertal changes.
- Describe the psychosocial, cognitive, moral, and spiritual development of the adolescent.
- Analyze the social development of the adolescent.
- Develop a teaching plan to promote optimum health during adolescence.

Lecture Objectives: (cont.)

- Identify stressors which affect the adolescent population.
- Review sexual education and discuss the issues of adolescent sexuality.
- Differentiate between the types, causes, and prevention of injuries in the adolescent population.
- Formulate interventions in a plan of care for the special health concerns relating to adolescence.
Promoting Optimum Growth and Development

- Transition between childhood and adulthood
- Rapid physical, cognitive, social, and emotional maturation
- Generally defined as beginning with onset of puberty and ending with cessation of body growth at 18-20 years

Terms
- Puberty—development of secondary sex characteristics
- Prepubescence—approximately 2 years before onset of puberty; preliminary physical changes occur
- Postpubescence—1-2 years after puberty; skeletal growth is complete; reproductive functions
Biologic Development

- Primary sex characteristics
  - External and internal organs necessary for reproduction
- Secondary sex characteristics
  - Result of hormonal changes: voice change, hair growth, breast enlargement, fat deposits
  - Play no direct role in reproduction

Hormonal Changes of Puberty

- Role of anterior pituitary and hypothalamus
- Hormones stimulate gonads
- Gonads produce and release gametes
- Gonads secrete sex-appropriate hormones

Sex Hormones

- Secreted by ovaries, testes, and adrenals
- Produced in varying amounts by both sexes throughout the span
  - Adrenal cortex causes small amount of secretion before puberty
  - Maturation of gonads produces biologic changes of puberty
Estrogen
- “Feminizing hormone”
  - Low production during childhood
  - Males: gradual production throughout maturation
  - Females: increases until about 3 years after menarche
  - Females then remain at this maximum level throughout reproductive life

Androgens
- “Masculinizing hormones”
  - Secreted in small and gradually increasing amounts for up to 7-9 years
  - Then rapid increase in both sexes; males continue rapid increase until 15 years
  - Responsible for rapid growth of early teen
  - Testes secrete testosterone: males increase to maximum level at maturity

Sexual Maturation
- Tanner stages of sexual maturity
  - Stages of development of secondary sex characteristics and genital development
  - Defined as guide for estimating sexual maturity
Sexual Maturation: Girls
- Thelarche: appearance of breast buds—age 9-13½ years
- Adrenarche: growth of pubic hair on mons pubis—2-6 months after thelarche
- Menarche: initial appearance of menstruation approximately 2 years after 1st pubescent changes—average age 12 years, 9½ months in North America

Sexual Maturation: Boys
- First pubescent changes: testicular enlargement, thinning, reddening, and increased looseness of scrotum—age 9½ to 14 years
- Penile enlargement, pubic hair growth, voice changes, facial hair growth
- Temporary gynecomastia in one third of boys; disappears within 2 years

Physical Growth
- Dramatic increase in growth accompanies sexual maturation
- Adolescent growth spurt
  - 20%-25% of total height achieved during puberty
  - Usually occurs within 24-36 months
- Characteristic sequence of changes
Sex Differences in General Growth Patterns

- Appear to be result of hormonal effects at puberty
- Obesity associated with early onset of menarche in girls
- Obesity effects less predictable in boys

Physiologic Changes

- Size and strength of heart, blood volume, and systolic blood pressure increase
- Pulse rate and basal heat production decrease
- Adult values for all formed elements of blood
- Respiratory volume and vital capacity increase
- Increased performance capabilities

Psychosocial Development

- Erikson: sense of identity
  - Early adolescent: group identity vs. alienation
  - Development of personal identity vs. role diffusion
  - Sex role identity
  - Emotionality
Piaget: Cognitive Development

- Formal operations period
- Abstract thinking
  - Think beyond present
  - Mental manipulation of multiple variables
  - Concerned about others’ thoughts and needs

Kohlberg: Moral Development

- Internalized set of moral principles
- Questioning of existing moral values and relevance to society
- Understand duty and obligation, reciprocal rights of others
- Concepts of justice, reparation

Spiritual Development

- Some may question values and beliefs of family
- Capable of understanding abstract concepts, interpreting analogies and symbols
- May fear that others will not understand their feelings
Social Development

- Goal: to define identity independently from parental authority
- Much ambivalence
- Intense sociability; intense loneliness
- Acceptance by peers

Relationships with Parents

- Roles change from protection-dependency to mutual affection and equality
- Process involves turmoil and ambiguity
- Struggle of privileges and responsibility
- Emancipation from parents may begin with rejection of parents by teen

Relationships with Peers

- Peers assume increasingly significant role in adolescence
- Peers provide sense of belonging and feeling of strength and power
- Peers form transitional world between dependence and autonomy
Heterosexual Relationships

- Dating
- Sexual experimentation—wide range
- Reasons for sexual experimentation
  - Curiosity
  - Pleasure
  - Conquest
  - Peer pressure to conform

Homosexuality in Adolescents

- Development of sexual identity during adolescence
- Risk of health-damaging behaviors by homosexual and bisexual youths
  - Early initiation of sex behaviors
  - STDs
  - Running away from home
  - Suicide and suicidal ideation

Interests and Activities

- Leisure activities center around peers
- Adolescent work experiences may provide benefits
- Time management concerns
Development of Self-Concept and Body Image
- Feelings of confusion in early adolescence
- Acute awareness of appearance, comparison of appearance with others
- Blemishes/defects magnified out of proportion
- Mature to self-concept based on uniqueness/individuality

Responses to Puberty
- Responses differ depending on stage of development
  - Curiosity in early adolescence
  - Concerns with "Am I normal?"
  - Concerns for late-maturing teens
  - Concept of "perfect body" achievement

Promoting Optimum Health During Adolescence
- Immunizations
- Nutrition
- Eating habits and behaviors
- Healthy lifestyle habits
Promoting Optimum Health During Adolescence

- Exercise and activity
- Dental health
- Personal care
  - Vision, hearing
  - Posture
  - Body piercing
  - Sun tanning/UV damage
- Sleep and rest

Sexuality Education and Guidance

- Media influences
- Knowledge often acquired from peers, TV, movies, magazines
- Knowledge often inaccurate
- Need for factual info, presentation based on developmental maturity

Injury Prevention

- Motor vehicle crashes—single greatest cause of serious and fatal injuries in teens
- Firearms/other weapons
- Sports injuries
Anticipatory Guidance—
Care of Families

- Parents need for support and guidance
- Information needs regarding developmental changes and process of gaining independence

Disorders Related to the Reproductive System

- Primary amenorrhea
  - No secondary sex characteristics and no menarche by 14-15 years of age or
  - Secondary sex characteristics present but no menarche by age 16-16½ years
  - No uterine bleeding after SMR 5 for 1 year or after breast development for 4 years

- Secondary Amenorrhea
  - Absence of menses for 6 months or absence of three cycles after menstruation was previously established
  - Most common cause—pregnancy (even with primary amenorrhea)
  - Other causes—eating disorders, stress, other causes of severe weight loss
Dysmenorrhea
- Primary dysmenorrhea
- Secondary dysmenorrhea
- Therapeutic management
  - NSAIDs
  - Estrogen therapy
  - Oral contraceptives
  - Dietary changes
  - Exercises, comfort measures

Vaginitis
- Causes may be physical, chemical, or infectious
- Diagnosis confirmed by vaginal exam, microscopic evaluation of vaginal secretions
- Health teaching

Male Reproductive Disorders
- Most anomalies identified in early childhood
- Infections (e.g., urethritis)
- Hematuria
- Penile problems (phimosis, trauma, carcinoma)
- Scrotal varicocele
- Testicular torsion
Gynecomastia

- May occur with normal achievement of male puberty and resolves within 1 year
- Can be caused by anabolic steroid use or endocrine disorders
- Testosterone supplementation may aggravate gynecomastia
- Plastic surgery?

Obesity

- Defined as increase in body weight due to accumulation of excessive body fat relative to lean body mass
- Obese: generally considered when weight >95th percentile for age, gender, and height
- Overweight: generally considered when >90th percentile
- 25%-30% children are obese

Impact of Childhood Obesity

- Increase in type 2 diabetes
- Risk of adult obesity
- Hypertension, hyperlipidemia, cardiovascular disease
- Social isolation, low self-esteem, depression
Causes of Childhood Obesity

- 5% due to underlying disease (hypothyroidism, other metabolic disease, CNS disorders)
- Role of heredity
- Inactivity
- Patterns of eating behaviors

Diagnostic Evaluation

- Skinfold measurements
- Body mass index calculations
- Body fat measurements
- Diagnostics to r/o metabolic and endocrine disorders

Nursing Considerations

- Assessment, planning, implementation
- Diet, exercise, behavioral and group therapy
- Prevention, evaluation
- Medical therapies
  - Pharmacologic—generally not recommended in children
  - Surgical—hazardous in children
Anorexia Nervosa

- Eating disorder: refusal to maintain normal body weight
- Primarily in adolescent and young adult females
- Mean age of onset 13.75 years, ranging from 10-25 years or more
- Life threatening

Pathophysiology of AN

- Etiology unclear
- Distinct psychologic component
- Diagnosis based on psychologic and behavioral criteria
- Relentless pursuit of thinness
- Distorted body image
- Media impact
- Concept of “control”

Clinical Manifestations of AN

- Severe weight loss
- Altered metabolic activity
  - Amenorrhea
  - Bradycardia, decreased BP
  - Hypothermia, cold intolerance
  - Dry skin, brittle hair and nails
  - Appearance of lanugo
Therapeutic Management of AN

- Treat life-threatening malnutrition
  - IV, tube feedings
  - Monitor CV status
- Behavior modification
- LT (lifelong?) treatment and management

Bulimia

- Eating disorder characterized by binge eating
- May be followed by purging behaviors
  - Laxative abuse
  - Self-induced vomiting
  - Diuretic abuse
  - Rigorous exercise regimens
- Up to eight or more cycles per day

Bulimia

- Weight may be normal or slightly above normal
- Weight may be low—bulimarexia
- Tooth erosion, esophageal damage, other GI concerns
- Psychologic issues
  - Self-deprecating thought; depressed mood
  - History of unsuccessful dieting; overweight in childhood
  - Low impulse control
Therapeutic Management

- Similar to anorexia management
- Hospitalization to treat potassium depletion, esophageal damage
- Cardiac monitoring indicated
- Behavioral management

Smoking

- Smoking Statistics
  - 1997—36.4% of high school students smoke cigarettes
  - More students using smokeless tobacco and/or cigars
  - Increasing rates in all racial, ethnic, and gender groups
Smoking Hazards
- Undisputed damage related to tobacco use
- Decreased lung function
- Addiction/dependence on nicotine
- Earlier age of smoking—more difficult to quit later in life

Why Do Kids Smoke?
- Imitation of adult behavior
- Peer pressure
- Perceived popularity of smokers
- Less likely to smoke if parents/family do not smoke
- Less likely to smoke with high-performance sports activities

Smokeless Tobacco
- Increasing popularity
- Serious hazards
- Carcinogenic
- Periodontal disease, tooth erosion, soft tissue damage
Anti-Smoking Campaigns

- Peer-led programs
- Emphasize social consequences rather than LT health problems
- Use of multimedia images
- School and community settings
- Begin in elementary school and through high school

Substance Abuse

- Drug abuse, misuse, and addiction
  - Voluntary behaviors
  - Culturally defined
  - Use of drugs for other than acceptable medical purpose
- Drug tolerance and physical dependence
  - Involuntary physical responses

Types of Drugs Abused

- Alcohol
- Cocaine
- Narcotics
- CNS depressants
- CNS stimulants
- Hallucinogens
- Inhalants
Nursing Considerations

- Acute care
- LT management
- Family needs/family support
- Prevention

Suicide

- Third leading cause of death in teens
- Suicide
  - Suicidal ideation
  - Suicide attempt/parasuicide

Suicide

- Etiology
- Methods
- Motivation
- Diagnostic evaluation/therapeutic management
- Nursing considerations