

# Chapter 11

## Growth and Development: Infancy Through Adolescence

# Chapter 11

## Lesson 11.1

# Learning Objectives

## **Theory**

- 1) Describe prenatal development.
- 2) Compare the development of the male and the female.
- 3) Describe the physical development of children.
- 4) Discuss Freud's theory of personality and the mind.
- 5) Discuss moral development according to Kohlberg.
- 6) Explain the stages of Erikson's theory of psychosocial development.
- 7) Explain the stages of Piaget's theory of cognitive development.
- 8) Identify the principles of growth and development.

## **Clinical Practice**

- 1) Explain the importance of regular prenatal health care
- 2) Discuss recommended feeding patterns for newborns and older infants

# Age Groups

- Prenatal = conception to birth
- Infancy = birth to 18 months
- Early childhood = 18 months to 6 years
- Middle and late childhood = 7 to 11 years
- Adolescence = 12 to 18 years

# Prenatal Development

- Germinal stage
  - Zygote, blastocyst, amniotic sac
- Embryonic stage
  - Nervous system, heart, extremities
- Fetal stage
  - Organs and systems
- Multiple births

# Prenatal Development: Germinal Stage

- Zygote travels to the uterus via the fallopian tube and becomes a blastocyst
- Blastocyst attaches to the wall of the uterus
- Umbilical cord carries blood to and from the placenta
- Blastocyst surrounded by amniotic fluid and the amniotic sac

# Prenatal Development: Embryonic Stage

- All systems and organs are formed.
- Heart beats at approximately 3½ weeks
- Arms and legs appear in the fifth week
- Fingers and toes appear at approximately 7 weeks and spinal column becomes visible
- 95% of body parts formed by the eighth week

# Prenatal Development: Fetal Stage

- Organs and systems become refined
- Rapid growth continues
- External genitalia appear in the third month
- Long bones visible in the fourth month
- 1½ inches long by the fifth month

# Maturation from Girl to Woman

- Puberty—onset between 9 and 17 years of age (average approximately 12)
- FSH stimulates ovaries to produce estrogen
- Estradiol from the ovaries is responsible for appearance of secondary sex characteristics

# Maturation from Girl to Woman (cont'd)

- Breasts develop
- Hips widen
- Axillary and pubic hair appears
- Reproductive organs continue to develop
- FSH stimulates the development of ova, and menstruation begins

# Maturation from Boy to Man

- Puberty—onset at approximately 14 years of age
- Interstitial cell–stimulating hormone activates testes to begin producing sperm
- Secondary sex characteristics appear, include enlargement of sex organs, and lowering of voice
- Growth of facial, pubic, and axillary hair; increased bone and muscle size; and nocturnal emissions occur

# Age Groups

- Prenatal = conception to birth
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# Theories of Development

- Sigmund Freud
  - Personality development
- Erik Erikson
  - Psychosocial development
- Jean Piaget
  - Learning, organization, adaptation
- Lawrence Kohlberg
  - Moral development

# Theories of Development: Freud

- Oral: 0-1 year
- Anal: 1-3 years
- Phallic (oedipal): 3-6 years
- Latency: 6-12 years
- Genital: 12 years and beyond

# Theories of Development: Erikson

- Trust vs. mistrust: birth to 1 year
- Autonomy vs. shame and doubt: 1 to 3 years
- Initiative vs. guilt: 3 to 6 years
- Industry vs. inferiority: 6 to 12 years
- Identity vs. role confusion: 12 to 19 years
- Intimacy vs. isolation: 19 to 25 years
- Generativity vs. stagnation: 25 to 50 years
- Ego integrity vs. despair: 50 years and older

# Theories of Development: Piaget

- Sensorimotor stage: birth to 2 years
- Preoperational stage: 2 to 7 years
- Concrete operations: 7 to 11 years
- Formal operations: 11 years to death

# Principles of Growth and Development

- Physical, cognitive, and psychosocial
- Growth occurs in orderly and predictable ways; heredity a major factor
- The rate of growth and development is individual
- Development is lifelong
- Development is multidimensional
- Development is continual but may be uneven

# Prenatal Development

- Three stages of prenatal development
  - Germinal (initial)
  - Embryonic (early formation)
  - Fetal (late)
- Viability
- Pregnancy divided into three trimesters of 3 months each
- Full-term pregnancy = 38 to 42 weeks
- Less than 38 weeks is considered premature

# Maternal Influence in Development

- Early and regular prenatal health care
  - Single most important factor in for a healthy pregnancy
- Health
  - High risk: chronic illness
- Age
  - High risk: pregnancy before age 16 or after age 40

# Maternal Influence in Development (cont'd)

- Nutritional state
  - Vital for healthy fetal development
- Emotional stresses
  - May restrict blood to the placenta
- Use of chemicals
  - High risk: alcohol, nicotine, caffeine, some medications, and street drugs

# Infants

- Are often covered with vernix caseosa at birth
- Head usually larger in comparison with the body
- Arms and legs move aimlessly
- Hands and feet may appear cyanotic at first
- Cry spontaneously at birth

# Infants (cont'd)

- Reflexes
  - Yawning, blinking, grasping, sucking, swallowing, and Moro reflex (startle reflex)
- Sleep 16 to 20 hours per day
- Most pediatricians recommend breast milk for nutrition
  - Easy to digest; contains antibodies (cow's milk not advised until 11 to 12 months)

# Physical Growth Newborns/Infants

- Newborn should double birth weight by 5 to 6 months and grow 10 to 12 inches the first year; sleeps 16 to 20 hours per day
- Nutrition is very important
- Eyes are dark blue or gray; permanent color develops by 9 or 10 months
- Ears are perfectly formed at birth, but touch is not well differentiated at birth; first teeth appear at 5 to 10 months

# Milestones in Motor Development

- 4 to 6 weeks Stops crying when held
- 2 months Lifts and turns head
- 3 months Tries to grasp objects
- 4 months Sits with support
- 5 months Recognizes people; holds own bottle; splashes in water
- 6 months Rolls over; sits alone
- 9 months Crawls; knows own name
- 10 months Some walk with help
- 12 months Most walk alone

# Cognitive Development

- Infants construct their own cognitive world
- Infants organize experiences and make adaptations
- Sensorimotor stage: babble at 3 to 6 months, say two-word sentences at 18 to 24 months
- Preoperational stage: 2 to 7 years (Piaget)
- Autonomy: 18 months to 3 years (Erikson)
- Initiative: 3 to 6 years (Erikson)

# Question 1

The growth and development of children and adolescents can be divided into common age groupings. Sydney is a 9-year-old girl. Which age group is appropriate for her?

- 1) Prenatal
- 2) Infancy
- 3) Early childhood
- 4) Middle and late childhood
- 5) Adolescence

# Question 2

Ann is bringing her 1-year-old in for a routine checkup. At 1 year old, Ann's baby should:

- 1) have doubled its weight.
- 2) begin receiving vaccines.
- 3) crawl and know its name.
- 4) begin walking.

# Question 3

Which developmental theorist, who made contributions to the understanding of personality development, stated that there are three components of the mind (id, ego, and superego)?

- 1) Sigmund Freud
- 2) Erik Erikson
- 3) Jean Piaget
- 4) Lawrence Kohlberg

# Chapter 11

## Lesson 11.2

# Learning Objectives

## Theory

- 9) Discuss age-appropriate discipline measures for children
- 10) Identify two advantages of early childhood education
- 11) Explain the male and female physical changes of puberty
- 12) Identify developmental tasks of adolescence
- 13) Discuss at least three concerns related to adolescence

# Learning Objectives

## **Clinical Practice**

- 3) Provide health promotion teaching to parents and school-age children
- 4) Explain the importance of screening young children for physical development
- 5) Explain how parents and other caregivers can encourage age-appropriate cognitive and psychosocial development

# Physical/Motor Development: Young Children

- Growth rate slower in young children than in infancy: 2 to 3 inches in height, 4 to 6 lb/year
- Boys slightly larger than girls
- Vision 20/40 by 4 years of age
- 24 teeth by 3 years of age; can say “no”
- Ready for bowel training by 1½ to 2 years
- Climbs stairs independently by 4 years
- Can run up stairs at 5 years
- Gross and fine motor skills improve

# Day Care and Early Education: Young Children

- May be provided in home setting or group setting
- Provides opportunity for child to adjust to leaving home for a time before the beginning of regular school years
- Learns socialization skills
- Child's behavior should be monitored for signs of stress

# Physical/Motor Development: Middle Years

- Booster shots before starting school
- Grows 2 to 3 inches and 3 to 5 lb/year
- Prepuberty signs begin around 11 years
- Requires regular dental care (permanent teeth)
- Coordination increasingly develops
- Adequate sleep and diet essential

# Cognitive Development: Middle Years

- Concrete operational thought (Piaget)
- Ideas formalized and fixed
- Demonstrates early problem-solving skills
- Conceptualizes and draws conclusions
- Verbal ability, reasoning, memory, imagination, and judgment grow
- Learning problems may be identified
- The other extreme in the range of intelligence is the gifted child

# Psychosocial Development: Middle Years

- Self-concept (middle years)
  - Social competence develops
- Industry vs. inferiority (Erikson)
  - Learns to cope with stressors
  - Behavior influenced by others
  - Peers become important
  - Develops best friends; joins groups
  - Parents challenged in disciplining

# Parenting: Middle Years

- Parents of middle and older children must adjust their expectations and degree of control
- Children begin spending more time with friends and less with family
- Can be given more responsibility, including household chores
- Denial of privileges is a good discipline tool

# Physical Development: Adolescents

- Physical development
  - Onset of puberty
  - Growth spurts
  - Adult height reached
- Sexuality explored (dating begins)
- Learn to think in the abstract and to analyze (Piaget formal operations stage)
- Emotions may be erratic

# Cognitive Development: Adolescents

- Become idealistic
- Communication skills increase
- Become aware of what other people think of them (particularly peers)
- Become egocentric again
- Indulge in attention-seeking behavior
- May believe that they are immortal

# Psychosocial Development: Adolescent

- Teens seek to be autonomous
- Time spent with the family decreases
- Family bond stretches
- Conflict erupts between teens and parents
- Dating becomes important
- Erikson's stage of identity vs. role confusion

# Tasks of Adolescent: Development

- Discovering their identity is a primary psychosocial task
- Begin making decisions that will affect the rest of their lives
- Ideology (a belief or value system) should be fairly well established by the end of adolescence
- Sexual orientation (sexual preference) should also be set

# Concerns in Adolescent: Development

- Pregnancy, teen parenting
- Employment
- Chemical abuse
- Eating disorders
- Depression
- Early deaths

# Question 4

Claire is an only child and is 9 years old. Her parents occasionally set rules for her, but they are flexible. What type of parenting style is this?

- 1) Authoritative
- 2) Authoritarian
- 3) Permissive
- 4) Persuasive

# Question 5

Adolescence begins at age 12 and continues until 18. All of the following are true regarding this period of growth and development *except*:

- 1) dating is an important experience that also helps young people discover their identity.
- 2) adolescents are concerned with their own identity and finding their own place in the world.
- 3) some concerns for adolescents are pregnancy, employment, chemical abuse, and eating disorders.
- 4) depression is rare in adolescents and is not a concern.