

The background features abstract, colorful swirls in shades of green, purple, and blue, interspersed with small yellow triangles, creating a dynamic and celebratory feel.

NURS 316

Growth and Development

Chapter 4

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Objectives

After completion of the reading assignment and class engagement following this class, students in NURS 316 will be able to:

1. Describe general principles of G & D.
2. Discuss theories of cognitive, psychosocial, psychosexual, and moral development.
3. Recognize attainment of developmental milestones for each stage.

Growth, Development

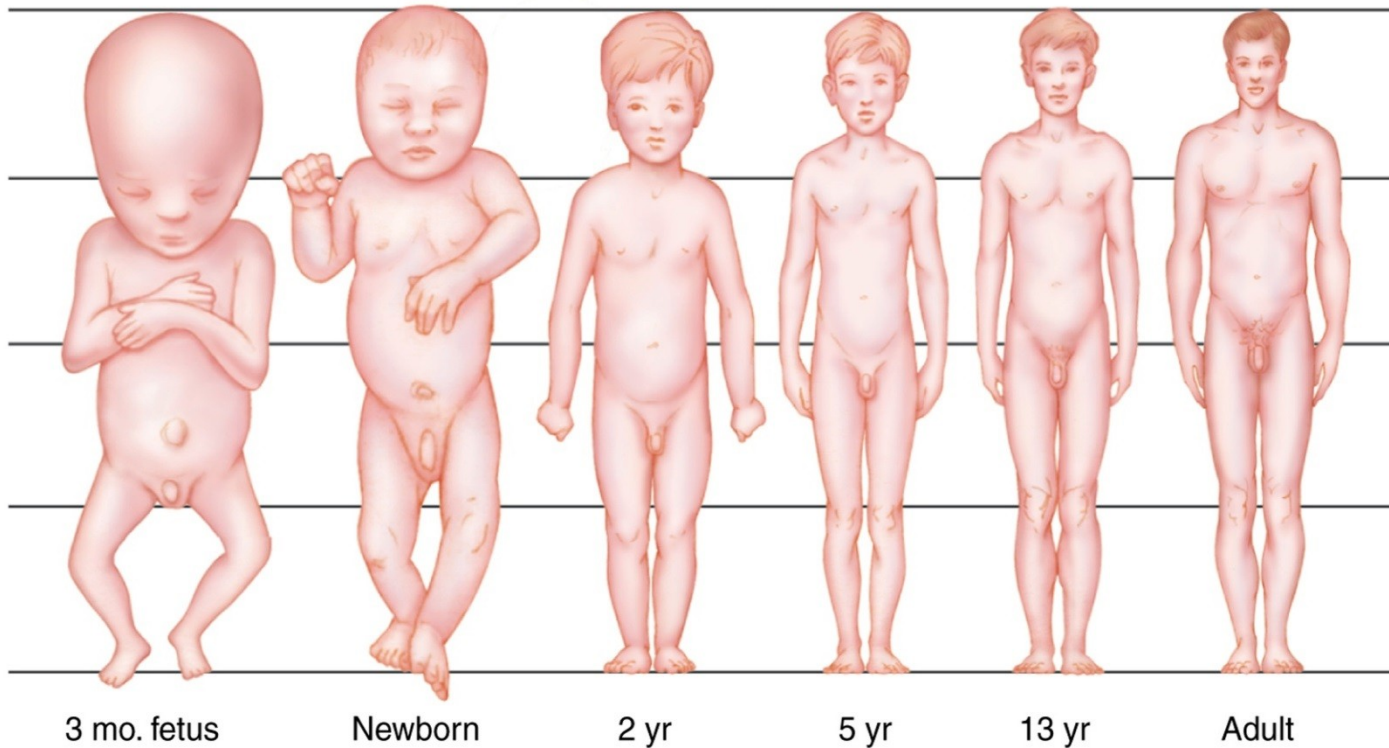
- **Growth:** a physiologic increase in size through cell multiplication or differentiation
- Increase in weight & length
- **Development:** physiological, psychosocial, and cognitive changes occurring over one's life span due to growth, maturation, and learning.



Some Principles of Development

- Directional:
 - Head to toe – “**cephalocaudal**”
 - Central to Peripheral- “**proximodistal**”
- Predictable (in a fixed sequence)
- Simple to complex
- Same between cultures
- Lack of opportunities may slow development

Body Proportions at various ages





Major Developmental Theories

- Freud
 - Psychosexual stages
 - Erikson
 - Psychosocial stages
 - Piaget
 - Cognitive stages
- Use Table 4-3 **Nursing Applications of Theorists** for Age- Specific Care Considerations in your care plan.

Theories of Human Development— Psychoanalytic perspective

Freud: Psychosexual

Id *pleasure seeking*, Ego *reality*, Superego *moral*

Stages:

- 1.oral (birth to 1),
- 2.anal (1-3 years),
- 3.phallic (3-6 years),
- 4.latency (6-12 years),
- 5.genital (>12 years)

<https://www.khanacademy.org/test-prep/mcat/individuals-and-society/self-identity/v/freuds-psychosexual-development>



Erikson: Psychosocial

1. Trust versus mistrust
(0-1 years)
2. Autonomy versus shame & doubt
(1-3 years)
3. Initiative versus guilt
(3-6 years)
4. Industry versus inferiority
(6-11 years)
5. Identity versus role confusion *(12-18 years)*

<https://www.youtube.com/watch?v=aYCBdZLCDBQ>



Theories of Human Development— Cognitive by Jean Piaget

Stages (Table 4-3)

1. Sensorimotor (birth to 2 years): learn through sensory/motor capabilities
2. Preoperational (2-7 years): shows curiosity and explorative behavior. Language skills improve. Causality is confused.
3. Concrete operations (7-11 years): Understand the basic properties of and relationships between objects and events, but limited to their own experience (trial and error).
4. Formal operations (>12 years): abstract thinking



Kohlberg's Theory Moral Development

3 stages

Preconventional (4-7 years) Decisions are based on avoiding punishment

Conventional (7-12 years) Conscience/
Follow rules

Postconventional (12+ years) Ethical standards are internalized/social responsibility



Temperament Theory

Parameters of Personality

- Activity level
- Rhythmicity
- Approach/withdrawal
- Responsiveness
- Mood
- Intensity of reaction
- Persistence

Patterns of Temperament

- Easy
- Difficult
- Slow to warm up
- Mixed

See page 77 for “Ways to Improve Goodness of Fit between Parents & Child



Mnemonic: Child development milestones

- 1 year – single words
- 2 years – 2-word sentences, understands 2-step command
- 3 years – 3-word combo, repeats 3 digits, rides tricycle
- 4 years – draws square, counts 4 objects

Growth & Development of the Newborn





1st 4 weeks of life

Average weight is 3kg

Average HC is 35 cm

Follows objects in line of vision

Lose up to 10% of birth weight, regained by 14 days



Infant Reflexes



- Moro stimulated by sudden change in position (disappears 4-6 months)
- Tonic neck stimulated by turning baby's head to one side while supine "Fencing" (disappears by 3 months)
- Dance reflex when infant is held upright with one foot touching flat surface (disappears by 4 months)
- Extrusion reflex fades at 4 months so solids can be fed
- If neuro damage (CP) then reflexes may persist beyond



Growth & Development of the Infant



<https://www.youtube.com/watch?v=i0fnBTUuRIA>



Infant

1 month-12 months

- Weight
 - Birth weight doubles by 6 months
 - Birth weight triples by 12 month
- Length
 - Increases by 50% by 12 months
- Head Circumference
 - Posterior fontanel closes 2-4 months
 - Anterior fontanel closes 12-18 months
- Chest circumference = head circumference by 1 year

The background features a stylized sun in the top left corner, composed of a light green circle with yellow triangular rays. Below the sun, there are three balloons: a light blue one in the middle left and a light purple one in the bottom left. Both balloons have yellow triangular rays emanating from them. The overall design is simple and colorful.

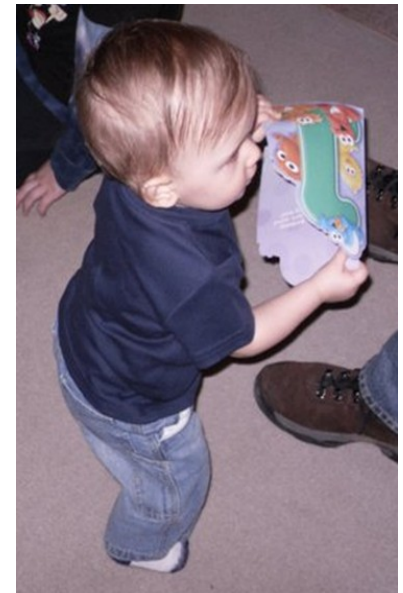
The Period of PURPLE Crying

- P: peak of crying is 2 months, less by 3-5 months
- U: unexpected
- R: resists soothing sometimes
- P: pain-like face
- L: long lasting (2-5 hours per day)
- E: evening, most babies cry more in late afternoon & evening

Gross Motor Development

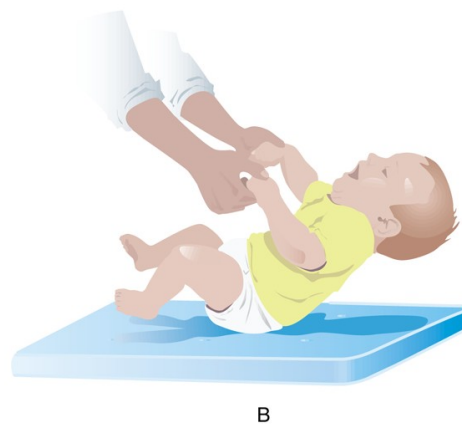
Average Age that Skill is Attained

- 2-4 months
 - Good head control
 - Support weight with arms
- 4-6 months
 - No head lag
 - Rolls abdomen to back 1st, then back to abdomen
- 6-8 months
 - Sits without support.
 - likes to bounce legs
- 8-10 months
 - Crawls, creeps, scoots
 - Pulls to standing
- 9-12 months
 - Stands alone
 - Walks





1 month



2 months



4 months

Degree of Head Lag at Different Age



Fine Motor Development

- 2-4 months
 - Brings hands to midline
 - Hold rattle
- 4-6 months
 - Mouths objects
 - Holds bottle
- 6-8 months
 - Bangs objects
 - Transfers objects between hands
- 9 months
 - Pincer grasp
- 10-12 months
 - Puts objects in containers through holes
 - Hold crayon/marks on paper




Red Flags in infant

- Asymmetry in head, trunk or extremities
- Stiffness (Hypertonic) or low tone (floppy)
- Poor tolerance when handled
- Poor oral motor control and difficulty feeding
- Babbling diminishes
- Lack of tracking
- No response to loud sounds

Object Permanence

- Jean **Piaget's** idea that children of about 8-9 months of age develop awareness/the idea that **objects** continue to exist even when one cannot see them.





Growth and Development of the **Toddler (1-3 years)**



Toddlers

- Exploring the world
- Learning how things work
- Tolerate limitations
- Express desires
- Experience autonomy
- Growth slows
 - Weight: 5 lbs/year
 - Height: 3 in. /year





Toddlers By Systems

- Neurological
 - Improved coordination & equilibrium
 - Myelination of spinal cord completes
- Musculo/Skeletal
 - in muscle strength
 - ↑ finger dexterity improves
- GI/GU
 - 33 months: all deciduous teeth in
 - Self-feeding
 - Control of bladder & bowel
- Cardio/Resp
 - Small airways
- Sensory
 - Vision: 20/20-40
 - Depth perception



Developmental Theories

- Freud:
 - anal stage
- Erickson:
 - Autonomy vs. Shame & Doubt
- Gender identity formed
- Piaget: Sensorimotor (stage 5 & 6) & Preoperational: substage preconceptual

Developmental Milestones

- Walking

- 9-15 months

- Red flag: no walking at 18 months

- 36 months: well balanced

- Feeding

- 15 months grasp spoon

- 18 months drink from cup

- 2 years

- Walks up & down steps with no help

- 3 years

- Pedals tricycle

- Communication

- 12-15 months speaks own language

- 36 months: 300-900 words, 2-3 word phrases, 3-5 word sentences understandable by others

- Play

- Parallel



Red flags in Toddlerhood

- Understandable less than 50% of time
- Marked limited social interaction
- Expressive vocabulary <50 words
- Inability to combine 2 words
- Inability to build a tower of 4 cubes
- Inability to run or kick ball forward

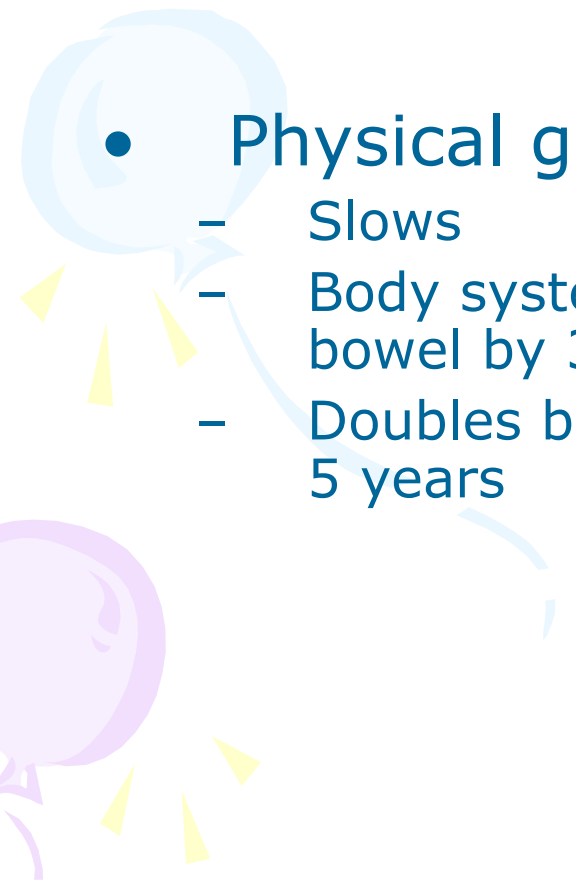
Growth and Development of the Preschooler (3-6 years)

- Time of new initiative & independence
- Can understand and speak clearly
- Busy with projects





Physiological Development & Milestones

- 
- Physical growth
 - Slows
 - Body systems mature: Nighttime control of bladder & bowel by 3+ years
 - Doubles birth height by 4 years; Half of adult height by 5 years

Development

- Cognitive

- Piaget's preoperational stage

- Egocentrism
- Concrete thinking
- Transductive reasoning
- **Magical thinking**

- Language

- Increased vocabulary
- Telegraphic speech: 3-4 words in length

- Psychosocial

- Erikson: initiative versus guilt



Magical Thinking



Play is associative

- Preschoolers interact with others during play but there is not a common goal.
- Fantasy life is powerful
- They engage in **dramatic** play.



Growth and Development of the **School-Aged Child** (6-12 years)





Physiological Development

- Dental: Deciduous teeth starting to shed at age 5 and complete by adolescence. 1st permanent tooth appears by age 6.
- Immune system: Acquired Immunity Fully Developed by age 6
- Sexual development: Puberty: on average, 12 years for females; 14 years for males.

Development & Milestones

- Gross and Fine Motor Skill
 - 6-7 years
 - Legibly prints letters; Rides 2-wheel bike; Masters all skills on the Denver II (bathe & dress self); Improved dexterity; tie shoe laces; use knife, fork, & spoon
 - 8-9 years
 - Developing eye-hand coordination; plays team sports; dress self completely; draw 3-dimensional figures
 - 10-12 years
 - Eye-hand coordination well developed; catches a fly ball
 - Fine motor skills well developed
 - Balanced on one foot for 15 seconds



Development & Milestones

- Cognitive (concrete operations)
 - Classification, conservation, reversibility
 - 6-7 years
 - Learning to tell time, to read; Understands right and left
 - Knows value of currency
 - 8-9 years
 - Understand concept of time; know the date and month
 - Understand space, cause, effect, conservation
 - Can make change (small currency)
 - Less animistic in thinking
 - Punctual
 - 10-12 years
 - Developing ability for abstract thinking; Able to write story
 - Drawings are detailed; Truthful; Knows limits
 - Likes to discuss and debate
 - Aware of effect on others

Development & Milestones

- Psychosocial
 - Erikson: industry versus inferiority
 - 6-7 years
 - Need praise and recognition
 - Enjoys games with peers of same gender
 - Demonstrates independence
 - 8-9 years
 - Likes competitive games and sport
 - Social, well behaved; modest
 - Looks up to adults
 - Rules are important; Best friends are important
 - 10-12 years
 - Rules are important
 - Sexual interest, exposed in incorrect info
 - Developing social competency
 - Respects parents; Obedient

School age play is cooperative

COOPERATIVE PLAY

- Children come together and play.
- A group of children with a common goal or similar interests, acting out adult situations or playing formal games.



- The concrete nature of their cognition leads to rules.
- Separation from playmates if hospitalized can lead to sadness and loss of purpose.

Growth and Development of the **Adolescent** (12-18 years)



Physiological Development



- **Puberty:** State of physical development when secondary sex characteristics begin to appear, sexual organs mature, reproduction first becomes possible, and the adolescent growth spurt starts.
- **Adolescence:** The time of life which begins with puberty and ends when the individual is physically and psychologically mature and able to assume adult responsibilities.

Physiologic Development cont.

- Musculoskeletal System
 - Adolescent growth spurt
 - Female peak height velocity (PHV) — 11 years or 6–12 months before menarche
 - Male peak height velocity — about 13 years
 - Weight increases follow same growth curve as height
- Genitourinary System
 - Menarche occurs 2 years after breast development (Thelarche)
 - Sexual Maturity Rating (SMR)
 - Females: describes breast (1st sign) and pubic hair development
 - Males: describes testes, penis, scrotum, and pubic hair development