



Al Rasheed College University
Nursing Department

Lectures in
Human Growth and Development
PHR 308

by

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Part 1: Introduction to growth and development

The outline

- Concept of growth and development
- Pattern of growth and development
- Stages of growth and development
- Factors affecting growth and development

Concept of growth and development

Growth

Physical increase in the body's size and appearance caused by increasing numbers of new cells

Development

Progressive change in the child toward maturity

Maturation

Completed growth and development

Developmental task

Developmental tasks or milestones are basic achievements associated with each stage of development

Patterns of growth and development

Cephalocaudal development

- The child is able to control the head and neck before being able to control the arms and legs

Proximodistal development

- Growth starts in the center and progresses toward the periphery, or outside
- The child can control movement of the arms before being able to control movement of the hands

Foundations of Growth and Development

Each child is unique in terms of height and weight

- Height
 - Predictable
 - Not uniform
 - “Growth spurts”
 - Routinely measured and plotted on charts
- Weight
 - Predictable and unique to child

- Important aspect
- Measured routinely and plotted on chart
- Body proportions
 - Vary and change
- Standards of growth
 - Growth charts allow for comparison of children of the same age and sex
 - Comparison of the child's current measurements with the child's previous measurements
- Standards of development
 - Standardized developmental tools
 - Denver Developmental Screening Test (DDST)
 - Screening identifies any delays in what is considered a standard or normal pattern

Domains of Development

- Physical
- Social
- Emotional
- Intellectual
- Cognitive

Stages of growth and development

Classification	Age
Infant	0-12 month
Toddler	1-3 years
Preschooler	3-6 years
School Age	6-12 years
Adolescent	12-18 years

Factors affecting growth and development

The human being is a complex, open system, influenced by natural forces from within and from the environment.

Forces of nature

- Heredity *it is responsible for characteristics of pattern growth, some familiar diseases
- Temperament

External forces

- Family *sleep, rest, and exercise (bedridden vs. healthy child)
- Peer group *state of health
- Life experiences *living environment
- Health environment
- Prenatal health
- Nutrition *deficiencies produce growth defects, such as rickets
- Injury and illness *occurring during birth or later, can affect G&D through damage they cause vital organs

Part 2: Measurement of growth and development

The outline

- Anthropometric measurement
- Growth chart
- Denver development screening test

Assessing Child Growth Using Body Mass Index (BMI)-for-Age Growth Charts

Pediatric growth charts have been used by doctors, nurses, and parents to track the growth of infants, children, and adolescents in the United States since 1977. In 2000, the CDC standardized growth charts were updated using a more representative sample of children. The new charts included the Body Mass Index (BMI)-for-age charts for children and adolescents from ages 2 through 20.

Training session

By the end of this training session, you will be able to:

- describe the use of Body Mass Index (BMI) as a screening tool for overweight and obesity
- calculate or determine BMI value from measured weight and height
- plot BMI value on the growth chart
- determine BMI-for-age percentile
- interpret weight category

Part 3: Theories related to human growth and development

Introduction

Theory

Organized and logical set of statements about a subject, frameworks to clarify, to make sense of.

Human Development Theory: Models intended to account for how and why people become who they are, try to explain and predict human behavior.

Why study theory?

- Provides a framework
- Offers logic for observations and explanations
- How and why people act
- Important for nurses to combine theory, practice, and research
- Nurses assess responses to illness and treatments

What Do Theories Do?

- Offer insight and guidance
- Provide a framework for acquiring new knowledge
- Enhance communication of new knowledge

Theories of Child Development

Three areas of Theory Development

- Psychoanalytic Development
- Psychosocial development
- Cognitive development

Each theory describes the development stages and the tasks that should be accomplished in each stage from the perspective of the theorist.

Significance of these theories

Help the pediatric nurse to follow the development tasks that the child should accomplish in his development stage and assists him/her in accomplishing them.

Sigmund Freud

Concerned primarily with the libido

Erik Erikson

Series of 8 developmental tasks or crises

Jean Piaget

Brought new insight into cognitive development

Freud's 3 Levels of Consciousness**1. Id**

Controls physical needs and instincts of the body

2. Ego

The conscious self; controls the pleasure principle of the id by delaying the instincts until an appropriate time

3. Superego

The conscience or parental value system

Psychosexual Stages in Freud's Theory**1. Oral (0–2 years)**

The new born first relates almost entirely to the mother; first experiences with body satisfaction come through the mouth

2. Anal (2–3 years)

The child's first encounter with the serious need to learn self-control and take responsibility

3. Phallic (3–6 years)

Interest moves to the genital area as a source of pride and curiosity

4. Latency (6–10 years)

The time of primary schooling; the child is preparing for adult life but must await maturity to exercise initiative in adult living

5. Genital (11–13 years)

Physical puberty is occurring at an increasingly early age; social puberty occurs even earlier

Erikson's Stages of Psychosocial Development**1. Trust vs. mistrust**

The infant learns that his or her needs will be met

2. Autonomy vs. doubt and shame

The toddler learns to perform independent tasks

3. Initiative vs. guilt

The child develops a conscience and sense of right and wrong

4. Industry vs. inferiority

The child competes with others and enjoys accomplishing tasks

5. Identity vs. identity confusion

The adolescent goes through physical and emotional changes as he or she develops independent self

6. Intimacy vs. isolation

The young adult develops intimate relationships

7. Generativity vs. self-absorption

The middle-aged adult finds fulfilment in life

8. Ego integrity vs. despair

The older adult is satisfied with life and achievements

Piaget's 4 Stages of Cognitive Development

1. Sensorimotor phase

The infant uses the senses for physical satisfaction

2. Preoperational phase

The young child sees the world from an egocentric point of view

3. Concrete operations phase

The child learns to problem-solve in a systematic way

4. Formal operations phase

The adolescent has own ideas and can think in abstract ways

Stage	Erikson	Piaget	Freud
Infant	Trust vs. Mistrust	Sensorimotor Stage	Oral Stage
Toddler	Autonomy vs. Shame & Doubt	End: Sensorimotor Begin: Preoperational	Anal Stage
Preschool	Initiative vs. Guilt	Preoperational Stage	Phallic Stage
School Aged	Industry vs. Inferiority	Concrete Operational Stage	Latency Stage
Adolescent	Identity vs. Role Confusion	Formal Operational Stage	Genital Stage

Part 4: Infant Growth and Development

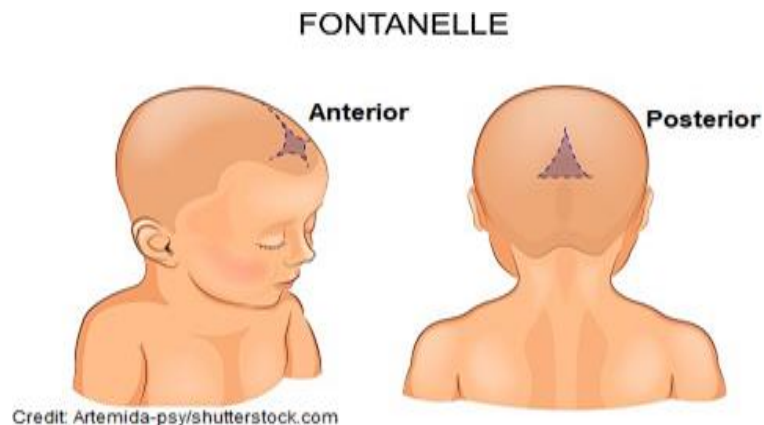
Infant Growth and Development Milestones

When studying these milestones, you want to be familiar with certain categories, and to help us remember these categories let's remember the word "**BABIES**".

- ✓ **B**ody changes
- ✓ **A**chieving developmental milestones
- ✓ **B**aby Safety
- ✓ **I**nterventions (considerations when providing nursing care)
- ✓ **E**ating Plan
- ✓ **S**ocial Stimulation (play)

Body Changes

- Fontanelles close:
 - Anterior closed by 18 months
 - Posterior closed by 2 months



- Weight:
 - 6 months doubles
 - 1-year triples
 - Example: 8 lbs. at birth.....16 lbs. at 6 months....24 lbs. at 1 year
- Length:
 - Grows ½-1 inch every month until 6 months
 - Example: 21 inches at birth.....24-27 inches at 6 months
- Eruption of teeth: lower central incisors by 10 months...fall out by 6-7 years



Achieving Developmental Milestones

The nurse will assess if the infant is meeting the following milestones at specific ages. It is important to note if the baby is reaching these milestones because it tells us if the infant is developing properly.

2 months:

- Moves head to each side and moves it in response to sound
- Tracts faces with eyes
- Makes noises (early language) cooing
- Smiles
- Hold head up when on stomach (educate: tummy time is important daily)



4 Months:

- Starts to enjoy play and interaction
- Cooing turns into babbling and copies other sounds
- Holds and reaches for toys
- Remembers faces and objects
- Rolls over

6 Months:

- Can sit up with support

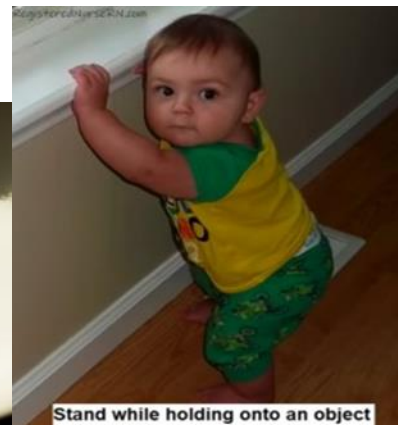


- Stranger anxiety begins
- Babbles with early vowel sounds
- Recognizes and responds to name
- Has fun looking at self in the mirror



8-9 Months:

- Sits without support
- Crawling
- Stands with pulling and holds on to object
- Pincer grasp: uses the thumb and index finger to pick up small objects



- Easily means they now know that once an object disappears, e: this means they now know that once an object disappears it still exists.
- Play: looking for hidden toys or playing peek-a-boo

10-12 Months:

- Begins walking
- Follows very simple commands
- Puts objects in a container and bangs them together
- Says simple words like “mama” or “dada”
- Separation anxiety starts

Baby Safety

SIDS (sudden infant death syndrome): an infant under 12 months dies for unknown reasons and tends to occur during sleep.

Education Pieces for the parent:

- Best sleep position: back
- Dress the infant appropriately.... don't overdress
- Avoid exposing the baby to tobacco smoke
- Remove extra items from sleep areas
- Infant can sleep in the same room but not the same bed
- ✓ **Shaken baby syndrome** (never shake a baby): can cause brain injury and death
 - Teach the parent about this and the importance of being calm and laying the infant down in a safe place and taking a break when things get intense
- ✓ **Choking:** there is a risk of choking starting after birth (babies can choke on milk or mucus in the respiratory tract) ...teach the parent how to remove with bulb suction and suggest they take a CPR class.... also, when foods are being introduced (usually around 6 months) **AVOID** small, hard round food items like grapes, uncooked vegetables, etc. because these are a major choking hazard
 - Never leave unattended on a surface and stop swaddling once the baby can start rolling over (by 6 months)
- ✓ **Car seat safety:** back seat and rear-facing device

–**Burns:** infants will start grabbing at items around 4-6 months, adjust water temperatures for the water heater, block off electrical outlets



Interventions (considerations when providing nursing care)

Erikson Stage: Trust vs Mistrust

- Meet needs promptly.... respond to crying
- Young infants: swaddling, rocking, sucking, holding
- Older infants: Keeping parent near, if possible (decreases separation anxiety), same caregivers (decreases stranger anxiety), calm environment, play: crib mobiles, objects from home older infant would be familiar with, etc.

Eating Plan

Breastfeeding is considered the gold standard in feeding an infant for the first 6 months of life (no other foods or liquids needed) alternative iron-fortified formula.

- American Academy of Pediatrics (AAP) recommends exclusively breastfeeding for the first 6 months with the exception of vitamin D supplementation (400 IU) for breastfed infants. Then can add solids over time while continuing breastfeeding or formula after 6 months.
- None of the following during the first 12 months: cow's milk or honey

Social stimulation (play)

Independent play: starts with observing to interacting/grasping for objects and the caregiver

- Observing: faces, high contrast objects, being talked or sung to.... birth to 4 months
- Interacting: toys to grasp like rattles, peek-a-boo, hiding objects, big toys to hold on to and push or stand

References:

Infant Developmental NCLEX Questions

- 1. You're assessing a 10-month-old infant. You note on examination the anterior fontanelle is open. The nurse will:**
 - a. Document this as an abnormal finding because this fontanelle should close at 2 months
 - b. Document this as a normal finding because this fontanelle closes at about 18 months
 - c. Document this as a normal finding because this fontanelle closes at about 12 months
 - d. Document this as an abnormal finding because this fontanelle should close at 6 months

- 2. An infant weighed 8 lbs. at birth. How many lbs. should the infant weigh at 6 months?**
 - a. 24 lbs
 - b. 10 lbs
 - c. 16 lbs
 - d. 32 lbs

- 3. An infant was 21 inches at birth. How many inches should the infant be at 6 months?**
 - a. 30-36 inches
 - b. 24-27 inches
 - c. 23-25 inches
 - d. 22-24 inches

- 4. During an assessment of a 10-month-old infant, you note on the infant's gum line two teeth that have erupted. These are the only teeth present in the infant's mouth. These teeth are known as the?**
 - a. Lower central incisors
 - b. Upper central incisors
 - c. Lateral incisors
 - d. Canine

- 5. You're assessing a 2-month-old infant. Which finding below is a normal milestone that should be reached by this infant at this age?**
 - a. The infant can sit up with support.
 - b. The infant holds a rattle.
 - c. The infant smiles at its parent.
 - d. The infant is afraid of strangers.

- 6. At what age would you educate the parents of an infant to stop swaddling the infant because the infant will be able to roll over onto its tummy?**
- 2 months
 - 4 months
 - 6 months
 - 10 months
- 7. At 8-9 months of age, what milestone should an infant be able to successfully perform?**
- Begin walking
 - Say several words like mama or dada
 - Sit without support
 - Follow basic commands
- 8. A 6.5-month-old is hospitalized. What nursing intervention will you include in their plan of care?**
- Separate the infant and parent during procedures
 - Maintain the infant's daily rituals and routines
 - Allow the infant to examine equipment before usage
 - Maintain the same nursing staff during each shift
- 9. You note a 10-month-old is using the pincer grasp. Which option below best describes this milestone?**
- The infant is able to grasp large objects with the palm and forefingers.
 - The infant is able to grasp small objects with the index finger and thumb.
 - The infant is able to grasp small and large objects with the middle finger and thumb.
 - The infant is able to grasp large objects with the palm and thumb.
- 10. You're developing a plan of care for an infant and you include activities for play. The play activities include hiding a toy and letting the infant look for it along with playing peek-a-boo. Which infant below would best benefit from this type of play?**
- 6-month-old
 - 2-month-old
 - 9-month-old
 - 4-month-old
- 11. A 12-month-old arrives at the health clinic for a good visit. You're assessing the infant's developmental milestones. Select below all the milestones the**

child should be able to perform.

- a. Rides a tricycle
- b. Draws a triangle
- c. Pulls to a standing position and can take a few steps
- d. Follows simple commands like “wave bye-bye”
- e. Puts objects in a container
- f. Hits two small wooden blocks together
- g. Says 2–3-word sentences

12. Your patient is 5 months old. Which developmental milestone, if not performed by the infant, should be further investigated?

- a. Crawling
- b. Rolling over from back to tummy
- c. Using the pincer grasp
- d. Sitting without support

13. You’re teaching a new mom of a 1-week-old infant on how to prevent SIDS (Sudden Infant Death Syndrome). Which statement by the parent requires you to re-educate the parent on this topic?

- a. “The best sleeping position for the baby is on their side or tummy”.
- b. “It’s okay to share the same room with the baby.”
- c. “I will stop swaddling the baby once he can roll over onto his tummy”.
- d. “I will be sure to remove extra blankets and toys from the baby’s bed.”

14. You’re helping develop a meal plan for a 10-month-old. Which foods will you select to be part of the meal plan? Select all that apply:

- a. Mashed potatoes
- b. Grapes
- c. Soup
- d. Toast with honey

15. You’re educating a group of parents about car seat safety. A participant asks about the best position of a car seat for a 6-month-old. Your response is:

- a. Forward-facing and back seat
- b. Forward-facing and front seat
- c. Rear-facing and front seat
- d. Rear-facing and back seat

16. You’re providing care to a 1-month-old infant who is hospitalized. The parents are unable to be at the bedside. The infant is crying. Select appropriate nursing interventions for this infant:

- a. Let the infant play with crib mobiles
- b. Swaddle the infant
- c. Attempt to play peek-a-boo with the infant
- d. Rock the infant
- e. Distract the infant with a toy

17. Your patient is 6 months old. According to Erikson's Stage of Development, this patient is in what stage?

- a. Autonomy vs. Shame & Doubt
- b. Trust vs. Mistrust
- c. Initiative vs. Guilt
- d. Identity vs. Role Confusion

18. A 3-week-old infant is exclusively breastfed. What will you include in the patient's education to the mother during this clinic visit?

- a. Introduce solid foods around 3-4 months of age along with breastfeeding.
- b. The infant needs to be supplemented with Vitamin D (400 IU) daily.
- c. Cow's milk may be substituted for breast milk around 6 months.
- d. Breastfeeding is only recommended for the first 4 months of life.

Part 5: Toddler Growth and Development

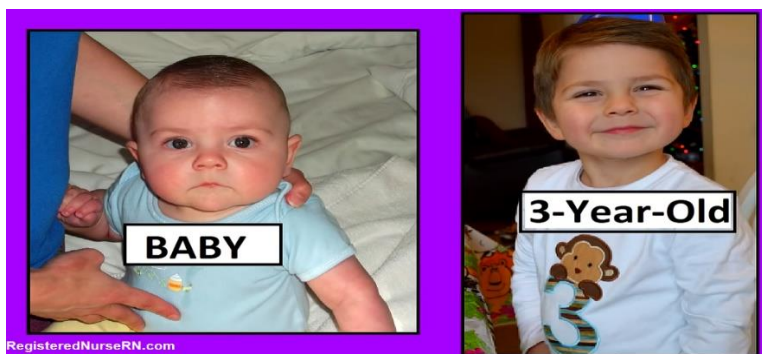
Toddler Growth and Development Milestones

Toddlers: **age 1 year to 3 years**

Toddlers are changing physically but their growth rate slows down a bit compared to the infant. However, they're making huge leaps and bounds in their mental development and fine/gross motor development.

They are becoming very aware of their environment and want to explore and test it out, which helps them understand their environment. Furthermore, they start developing autonomy. This is where they realize they're individuals (separate from the caregiver) and they are able to exert their own will. Also, they realize their reactions influence others around them.

They will start to look less like a baby and more like a little child (as you can see in the example below). So, it is amazing the changes a child undergoes within the first 3 years of life.



Some **fine and gross motor skills** a toddler can perform: Throw and kicking a ball, running, climbing, holding a pencil and scribbling, building with blocks, saying their name, using 100s of words, talking in up to 3-word sentences, etc.

Toddler Body Changes

Weight (by 24 months):

- Gains about 4-6 lbs. per year (this is decreased compared to the infant's rate)
- At **24 months, weight should be 4 x the birth weight:**
 - Example: 7 lbs. at birth...what would the weight be at 2 years? Around 28 lbs.
- Average weight of 24 months old is 26.5 lbs (girls) -27.5 lbs (boys)

Height (by 24 months):

- Increases by 2-3 inches per year
- Height at **24 months is 1/2 their adult height**

- Average height for a 24-month-old is: 33-34 inches

Head to chest circumference: equal around 12-24 months (newborn head circumference was about 1-2 cm bigger than the chest circumference)

Now let's highlight the important concepts you want to know about the toddler as a nurse, and to help us remember those concepts let's remember the word: "**TODDLER**"

Tempertantrums:

- Why do they have them? It goes along with the common saying "terrible twos". At this time in life, the toddler is developing a sense of autonomy and they want to be independent but struggle with this newfound development. They easily become stressed or agitated when they can't accomplish something. For example, opening a container to access toys or being told "no" can cause a tantrum. Toddlers are immature in how they process their emotions.
- How do they respond? Scream, cry loudly, throw items on the ground, hit, etc.
- **E**ducation for parents?
 - Normal part of childhood development (unfortunately)...it will pass as the child becomes older
 - Stay calm and don't give in to the child (teaches them tantrums work) or try to reason with them
 - Ignore the behavior but stay close so they know you're there
 - Be consistent with your approach
- **P**revention:
 - Divert their attention to something else
 - Be aware of the triggers: hunger, sickness, tiredness, etc.
 - Let them have some autonomy with choices (give simple options.... It's time for bed.... we can read this book or that book?)
 - Praise their good behavior
 - Prepare them for a change in the event:
 - Example: leaving the park.... say "you can go down the slide 3 more times and then we are going home" rather than suddenly telling them it's time to leave.

On the move (SAFETY): toddlers are at a major risk of hurting themselves due to increased mobility, curiosity, and not being able to perceive the danger or consequences. Therefore, it's a dangerous age for death.

Educate parents about: "**DANGERS**"

- **D**rowning
- **A**utomobile accident (stay in rear-facing until 2 years in the back and then switches to forward-facing in the back after 2 years)
- **N**ose-dives (falls)
- **G**etting burned
- **E**ating toxic substances

- **R**evolvers/rifles...unsecured firearms
- **S**uffocate/chokes

Diaper to potty transition “potty training”: the child must be ready physically and mentally or it won’t be successful

- The anal and urethral sphincter can be voluntarily controlled for around **18-24 months**. Bowel control comes before the bladder (reason: bowel movement is easier to detect).
- Most children are potty trained by 3 years (daytime).
- Night-time potty training takes more time.... still needs a diaper at night (4-5 years).
- **Know the signs that a child is ready to potty train: “TOILET”**
 - **T**wo or more hours with a dry diaper
 - **O**n and off (potty by self and their pants)
 - **I**nterested in the potty
 - **L**ikes sitting on the toilet (5-10 minutes)
 - **E**xperiencing regular BM (same time)
 - **T**ells you they have to go

Development stage theory:

Piaget’s Theory: a person develops through various stages by interacting and exploring their environment and this helps them learn about it. Based on the toddler’s age they may be in either the sensorimotor (birth to 2 years) or preoperational phase (2 to 7 years).

- What to remember about preoperational?
 - Toddlers don’t see things from another person’s point of view.... very egocentric
 - They’re symbolic in thinking and play.... plays pretend (ex: pretends a stick is a sword and fighting monsters)

Type of Play by Toddlers: parallel play



- This means they observe others play and play beside them but don't actually play with others.
- Toys Toddlers like blocks and ones with containers (love putting objects inside things), push and pull toys (wagon, cars, strollers, etc.) ...remember they're walking, stuffed toys, pretend sets (cooking, shopping, building), coloring, painting, balls (like throwing objects), books that are interactive with sounds or hidden doors.... like to mimic parent's activities

Erikson's Stages of Development: Autonomy vs Shame and Doubt

- Developing independence.... able to reach this stage because they've developed trust with caregiver (needs being met in the previous stage) ...discovered they're individuals separate from others...their actions affect others and objects in their environment
- **Result of stage:** develop the confidence to develop skills (toilet training, feeding self, dressing self)
- **Interventions to help with this stage:** provide opportunities for independence and give positive feedback, don't punish for doing skills wrong
 - Choices with food, drinks, books to read, activities

Separation Anxiety: know the stages

- *Protest:* crying and doesn't want the parent to leave
- *Despair:* depressed no longer crying but withdrawn/quiet....but will cry once parent comes back
- *Detachment:* rare to get to this stage....to cope they detach themselves from their parent... seem happy and that they have coped but they haven't...affects the child-parent relationship...won't cry when the parent returns

Interventions for separation anxiety: remind the child-parent is coming back (if this is true), maintain routines, encourage the child to talk about the parent

Loves to say "NO":

Negativism: doing the opposite of what is being asked

- Why? Toddler wants to be independent so when you ask them to do something they don't desire or weren't going to do they will say no.... it's all about their autonomy.
- Education on how to deal: avoid getting a no response.... give options and let them pick (helps with autonomy) example: "You can take your medicine in a blue cup or green cup." rather than "Are you ready to take your medicine?"

Eating Plan

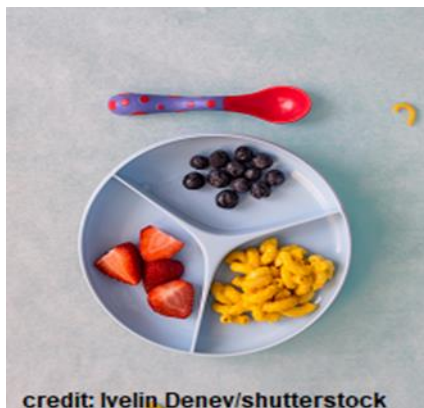
- Well-balanced diet (tend to be grazers)



- Toddlers like to have small easy to grab nutritious snacks rather than sit down and eat 3 meals a day (fruits, veggies, meats, milk, water...limit juices, processed, sweets, and fatty foods)
- Don't let the toddler fall asleep with the bottle in his mouth...dental caries



- When should they go to a dentist? When the first set of teeth have broken through.... lower central incisors...around 8-10 months so by 12 months (assist w/ brushing teeth and ask if water has fluoride in it at home.... if not may need fluoride application)
- Becomes picky about food (eats based on how it looks...avoid foods that are mixed together like a stir-fry with rice, mixed meats, and veggies...separate them...use fun plates)



- Ritualistic (more about this later) about how their meals are presented.... certain foods at for certain mealtimes, particular plate, or cup
- Doesn't like trying new foods at this time...will have a limited diet of what they like
- Choking risk.... avoid foods that are hard to chew: big chunky meats, foods with strings like celery, seeds, hard candy, popcorn etc.) still fine-tuning their chewing abilities (large pieces can become lodged in the throat) ...educate about how to relieve from choking.

Rrr (rituals, rivalry, regression)

Ritualism: the child wants things done the same way each time.... has certain routines and items they use for specific tasks (ex: needs a specific plate to eat, needs a bedtime story before going to bed, etc.)

- Why? It's comfortable and predictable for them. It actually creates an environment where they can start learning new skills.

Rivalry (sibling): this is the age when many toddlers become a brother or sister

- Why it causes problems? It breaks the routine; attention is diverted suddenly and they will start to act out (tantrums or **regression**).
- Interventions: include them so the focus of attention is not too hard to cope with like with feeding and care, consider their comfort for routines and try to maintain important ones, and watch out for jealousy because toddlers may physically harm the new sibling

Regression: toddlers can start to revert back to infancy skills or temporarily lose developmental skills they have obtained... they can start using the bathroom on themselves if previously potty trained, refuse to eat and want a bottle, lose speaking abilities, do not sleep at night, etc.

- **Why?** Toddlers learn and grow differently in the development of skills and if overwhelmed or stressed they can regress. Toddlers have specific bursts of learning based on age (milestones ages) compared to adults who build upon their skills and can easier deal with failures and stress more than toddlers.
- **Causes:** Stress (feel like they can't cope or be successful at a new skill or situation), disruption to their routine (new sibling, new caregiver, being in the hospital)
- **Result:** Regresses back in their stage of development because they're more comfortable and it's more predictable.
- **Interventions:** don't punish due to the regression, identify the cause of stress (try to remove or alleviate it if possible) or when a regression episode is likely to occur (going to a new daycare...not the best time to be learning a new skill that

requires independence until comfortable with new daycare situation), concentrate on what the toddler is doing well

References:

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Toddler Developmental NCLEX Questions

1. A 2-year-old weighed 7 lbs. at birth. How much should the child weigh now?

- a. 14 lbs.
- b. 28 lbs.
- c. 21 lbs.
- d. 36 lbs.

2. You're assessing the height of a 24-month-old. The child is 34 inches. Based on this measurement, what is an estimated adult height for this child?

- a. 6 feet 2 inches
- b. 5 feet 8 inches
- c. 5 feet 2 inches
- d. 6 feet

3. The mother of a 2-year-old verbalizes concern about how her child has suddenly developed temper tantrums. She asks about preventive measures. What are some preventive measures you can educate the mother about? Select-all-that-apply:

- a. Avoid giving the child choices
- b. Distract the child
- c. Give in to the child's request
- d. Prepare the child for a change in activity or an event a few minutes before it occurs
- e. Avoid new activities when the child is hungry or tired

4. Your patient, who is 2 years old, is having a temper tantrum. What actions below are not appropriate for dealing with this situation? Select-all-that-apply:

- a. Attempt to stop the tantrum
- b. Protect the child from hurting themselves

- c. Ignore the behavior
 - d. Reason with the child
 - e. Leave the child alone until the tantrum stops
 - f. Be consistent with your approach
- 5. You're providing car seat safety education to a mother of an 18-month-old. Which statement by the mother requires you to re-educate her about this topic?**
- a. "The safest place for the child is in the back seat."
 - b. "A child is switched to a forward-facing car seat at 12 months."
 - c. "A child less than 24 months of age should be in a rear-facing care seat."
 - d. "My son sits in a rear-facing car seat in the back of the car."
- 6. True or False: When potty training a child it is important to remember that bladder control occurs before bowel control.**
- 7. Fill in the blank: The anal and urethral sphincter can be voluntarily controlled around _____.**
- a. 12-18 months
 - b. 24-36 months
 - c. 6-12 months
 - d. 18-24 months
- 8. You're teaching a group of new moms about how to assess toilet training readiness in their toddlers. Which statement by a participant demonstrates they did NOT understand the education provided:**
- a. "I should start potty training once my child has had a dry diaper for 2 hours or more."
 - b. "It is best to start night-time potty training before day-time potty training."
 - c. "Having regular bowel movements is a sign of potty-training readiness."
 - d. "My child can sit on the toilet for at least 10 minutes without being fussy, so I think I will try potty training soon."
- 9. According to Piaget's Theory of Development, what stage would a 14-month-old be in?**
- a. Formal operational
 - b. Sensorimotor
 - c. Preoperational
 - d. Concrete operational
- 10. According to Piaget's Theory of Development, your patient is in the Preoperational Stage based on their age. The patient demonstrates they are in this stage by which finding below?**
- a. The child understands time and quantity.
 - b. The child likes to play pretend.

- c. This concept of object permanence is not developed yet.
- d. The child possesses abstract thinking rather than concrete thinking.

11. You're creating a plan of care for a 24-month-old and developing interventions to help with the development of the child. According to Erikson's Stages of Development, what intervention below would help promote development in this patient?

- a. Thoroughly communicate the rules to the child.
- b. Encourage the child to ask questions about care.
- c. Take time to swaddle and rock the child when crying.
- d. Give the child opportunities to make food and drink selections.

12. A 20-month-old is in what stage of development according to Erikson's Stages of Development?

- a. Industry vs. Inferiority
- b. Initiative vs. Guilt
- c. Autonomy vs. Shame and Doubt
- d. Trust vs. Mistrust

13. You observe toddlers playing. The children are playing with toys, but they are not playing together. This type of play is known as?

- a. Solitary play
- b. Parallel play
- c. Associate play
- d. Co-operative

14. You're providing care to a 2-year-old and have noted negativism. Which statement by the nurse to the toddler will help decrease negativism when administering medications to the toddler?

- a. "Are you ready for your medicine?"
- b. "Can you take your medicine in a cup?"
- c. "Do you want to take your medicine now?"
- d. "You can take your medicine in the blue or green cup."

15. The nurse is educating the parents of a 13-month-old on how to avoid dental caries. Which statements should the nurse include in the education about this topic to the parents? Select-all-that-apply:

- a. "If a bottle is given at night, be sure to water down the juice before giving it to the child".
- b. "When your child's first teeth erupt, it is time to go to the dentist."
- c. "If your water at home does not contain fluoride, fluoride supplementation may be needed".
- d. "To help promote autonomy in your child, he should brush his teeth by himself without assistance".

16. The mother of a toddler verbalizes her child has become a picky eater. What are some strategies the mother can implement to help her child? Select-all-that-apply:

- a. Have small easy to grab nutritious snacks available rather than 3 large meals a day
- b. Give the child new foods to try
- c. Use the same plate and cup for meals
- d. Offer food items that are mixed

17. A toddler is hospitalized and the parent had to temporarily leave the child. The child was inconsolable when the parent left but now is quiet and withdrawn. This is known as what stage of separation anxiety?

- a. Detachment
- b. Denial
- c. Despair
- d. Protest

18. A 3-year-old is hospitalized. The parent verbalizes to you that at home the child was potty trained but now the child is refusing to use the toilet and is voiding on themselves. The parent expresses concern. As the nurse, you should tell the parent.

- a. Try potty training again while the child is hospitalized.
- b. Reassure the parent that this is temporary and is most likely occurring because the child is hospitalized.
- c. Advise the parent to set limits and implement discipline strategies for toilet accidents.
- d. Recommend the parent avoids ritualistic routines until the child is not hospitalized.

Part 6: Preschooler Growth and Development

The preschooler includes the ages 3-5 years, and to help us remember the main concepts about the preschooler, let's remember the word "preschool".

Physical changes

The preschooler is going through the process of stretching and filling out. Their face is becoming more defined (less round) and they're losing the protruding belly. In addition, their limbs are elongating. By the end of preschoolerhood, at the age of 5, the child will be social, talkative, and very active with a blossoming personality.

- Gaining only about 5 lbs/yr and grows about 3 inches per year
- Height average: 44 inches (by 5 years)
- Weight average: 42 lbs. (by 5 years)

Fine and gross motor skill development is rapidly becoming fine-tuned from the age of 3 to 5.

Gross motor skill examples: riding a tricycle, catching and bouncing a ball, running, hopping, skipping, climbing, etc., and all of these skills are becoming very well established as he or she approaches 5.

Fine motor skill examples (by the age of 5): copy and write first name, zip-up jacket, button-up shirt, use scissors, copy shapes like triangles, circles...all of these skills are getting the child ready for school.

Reduced Separation Anxiety (but still there until around 4 to 5 years): the young preschooler (age 3) does not like being away from the parent, especially during a stressful situation, sickness, etc.

- The young preschooler tolerates it better than the toddler during the protest stage in that he or she will not scream and cry loudly, but instead, they will cry quietly and may act out.
- The despair and detachment stage of separation anxiety is the same as the toddler.
- Magically thinker: may think the parent may be hurt or never come back when separated from the parent.... they don't understand time (so don't give a time for when coming back.... just reassure them frequently the parent is coming back)

Erickson and Piaget's Theories

Initiative vs. guilt: third stage and it's from ages 3 to 5

- The child gained a sense of trust and developed autonomy in the previous two stages. Now they need independence to try new things, learn how to accomplish tasks, make decisions, and how to deal with situations that challenge them ex: failure, making the right choices (conscience is developed...choosing right or wrong...will they choose to obey?).
 - If not given opportunities to try new things or make choices by self the child will develop guilt and struggle with trying new things and struggle with being independent.... will have issues with developing a sense of purpose.
 - If this stage is failed, they will experience guilt.
 - If this stage is accomplished, the child will have a sense of purpose.
 - Interventions to help the child in this stage:
 - Encouraging play, especially imaginary play, giving the child within reason freedom to try new things and encouraging them when they fail, avoid criticizing or trying to control all aspects of choices, and try to accept their choices

Piaget's Theory:

Preoperational: 2-7 years and overlaps with the toddler in the previous lecture

- The preschooler is egocentric still like the toddler but is changing to eventually be able to see things from other people's point of view (currently they see things from their point of view only).
- They're magical thinkers and love pretend play (having imaginary playmates etc.)
- Animism: the preschooler thinks inanimate objects (ex: toys) are living things and have feelings like they do....example: my son had a stuffed monkey and when he would eat, he would have to feed the monkey because it was hungry too.
- Literal thinkers

Scared of things "FEAR"

Preschoolers fear many things due to their inability to distinguish fact from fiction and their creative imaginations fuel this fear.

- Animism (discussed above) can cause fear. Toys that are scary looking or make loud noises can cause this. The YouTube lecture contains a real-life example of a preschooler experiencing fear due to animism.
- Hospitalizations: feel like they are sick because of something they did and the hospitalization/sickness is punishment...reassure them this is not the case but they have a sickness and be honest with them about it...explain in very simple terms.

- Procedures: the preschooler fears mutilation of their body and that they may lose something on their body. This is especially true since they are very creative thinkers and make the procedure worse than it really is. They most definitely fear invasive procedures like shots, IVs, etc.
- Interventions and education to help them cope:
 - simple explanations, medical play: dolls (demonstrate how to give a shot and let them do it, read a book about it), listen to the child and answer their questions, keep parent with them if possible, give choices, allow to be independent (regression can still happen when stressed or experience loss of control), avoid giving a specific time but in relation to an event or in stages as it's about to happen....example: "Your friend will visit after your afternoon nap."....don't say "At 1 o'clock your friend will be here."



Child Safety: not as rambunctious and unaware of danger compared to the toddler because the preschooler has now developed more intellect and can follow the rules, but still has to watch with other things like unsecured guns, swimming, bike safety, stranger danger, etc.

Healthy eating: not as picky as the toddler, especially by five...more willing to try new foods and be better at sitting down to eat as they approach 5 (younger children will still not be able to sit for long periods)

- "Baby teeth" completely in by 3 (dental care very important) ...start losing them around 5 to 6 (varies from child to child) avoid fatty, sugary foods
- always watch for choking risk.... don't run with suckers in the mouth or talk with food in the mouth, etc.

Others are starting to become important for playtime...finally starting to transition where they want to play with others...starts out with associative play...then cooperative play

Playstyle: associate play (starting around 3 years...progressed from parallel play by the toddler) to cooperative play (around 4-5 years).



- **Associative play:** children are playing/talking together in the sense they are doing the same activity together like using the same toys (where they begin to understand sharing or borrowing) or using the same equipment



- example: playing in a sandbox by using shovels and sand molds but they aren't working together to accomplish something but rather focusing on their own activity.....this type of play is building the framework for social interaction and how to get along with others...hence cooperate
- **Cooperative play:** children play together doing the same activity by cooperating and collaborating together and have the same focus and goals doing so.... ex: working together to build a sand castle...they must communicate with peers, follow the rules, be kind, share, leader and follower has easily seen.



Outline behavior expectations for the parent during this age range:

- Can experience loss of control due to being hospitalized or sick. This occurs because they can't do the things they normally did like dress, eat, and play.
- Due to this loss of control, the child can regress.
- Aggression in behavior: can be influenced by parents “modeling” or other aggressive people in the child’s life, media
- Negativism and ritualism like during the toddler years is decreasing
- Can experience nightmares (reassure them that you’re there, listen, help go back to own bed)

Language explosion: a major development in the language during this time.... vocabulary exploding by age of 5 in that they know about 2400 words and speak in 5-word sentences that are complex with descriptive words and use conjunctions like and or but to join words together.

- May experience stuttering during this time but should resolve after the age of 5.
- If the child does this: take time to listen, don’t rush them or finish their words or sentence or scold or make fun of the child for this issue or make a big deal about it.... referral for speech therapy may be needed to prevent problems as he or she becomes older and still stutters.

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Preschooler Growth Developmental Questions

1. Your patient is 4 years old. According to Erikson’s Stages of Psychosocial Development, the child should develop _____ by the end of their developmental stage.

- trust
- purpose
- autonomy
- competence

2. When considering Erikson’s Stages of Psychosocial Development for a 3-year-old which action below would potentially hinder a child’s development?

- Giving the child freedom to try new things

- b. Offering options of play that are imaginary
- c. Accepting reasonable choices made by the child
- d. Making choices and decisions for the child

3. A preschooler is in what stage of development according to Piaget's Theory?

- a. Preoperational
- b. Concrete operational
- c. Formal operational
- d. Sensorimotor.

4. Which statement below is TRUE regarding a 5-year-old's cognitive development based on Piaget's Theory?

- a. "The goal of this stage is to achieve the understanding of object permanence."
- b. "This child now has the ability to think logically about events."
- c. "This child's thinking is still egocentric and they can't understand the point of views of others."
- d. "This child has the ability to create hypothetical arguments."

5. You're assessing the development of a 5-year-old. Which of the following are the FINE motor skills a child should be able to perform at this age? Select-all-that-apply:

- a. Ride a tricycle
- b. Use blunt-tip scissors
- c. Hop
- d. Skip
- e. Copy triangles and circles
- f. Print their first name

6. A 3-year-old is hospitalized and the parent has to leave to care for other children but will be back to visit. What observation found in this preschooler would demonstrate the child is experiencing the protest phase of separation anxiety?

- a. Loud crying that is inconsolable
- b. Withdrawn and sullen
- c. Crying quietly and acting out
- d. Happy and content

7. What is an example of animism in a 3-year-old child? Select the most appropriate option below:

- a. The child leaves the T.V. on while she plays outside so her doll won't become bored.
- b. The child dresses up in a doctor's outfit.
- c. The child uses a stick as a sword to slay dragons.
- d. The child copies her mother by putting on jewelry and high heels.

8. You need to start an IV on a 4-year-old. Select the appropriate interventions to perform before starting the IV to help the preschooler cope with this procedure.

Select-all-that-apply:

- a. Let the child know that at 9:00 am you will be starting the IV.
- b. Be honest with the child about what to expect with starting the IV.
- c. Have a doll available that the child can start an IV on.
- d. Give the child privacy and direct the parents to the waiting room while the IV is started.
- e. Encourage and answer all the child's questions before starting the IV.

9. A 4-year-old is hospitalized for the treatment of a brain tumor. As the nurse, you know that a preschooler would struggle with which of the following issues during the hospitalization?

- a. Separation anxiety
- b. Loss of control
- c. Loss of relationship with peers
- d. Negativism

10. You're developing a plan of care for a 3-year-old that includes play activities. What type of play does a child participate in at this age?

- a. Parallel
- b. Cooperative
- c. Associative
- d. Solidary

11. You see a group of children working together to build a sand castle. What type of play is this?

- a. Parallel
- b. Cooperative
- c. Associative
- d. Solidary

12. A parent verbalizes concern about her 3-year-old stammering while pronouncing words and asks for suggestions. Which statement by the nurse to the parent is NOT an appropriate intervention regarding the child's stammering?

- a. "When the child stammers help the child finish the word."
- b. "Encourage the child to take their time as they speak."
- c. "It is normal for a child to stammer during this time and should subside."
- d. "Be patient and listen attentively to the child as she speaks."

Part 7: School-Age Growth and Development

The school-age child falls within the age range of 6 to 12 years. Before this time the child was considered a preschooler and after this, the child is considered an adolescent.

SCHOOL

Skills:

The school-age child has learned many things up to this point and it all started when they were an infant. So, now the child is building upon those skills and mastering them with independence. This helps them discover their role within the family and among friends. As the child advances from 6 to 12, parent to child, and child-to-peer interaction along with schooling will be the main drivers for learning and growth (why called it's called the school-age child). The school setting varies and can be via a public, private, online, or home setting.



Fine motor skills: these are skills that use small muscles: Writing (not only writing their name with ease but will advance with writing sentences and complex stories), drawing with details (no longer just stick people), typing, helping with advanced cooking and cleaning tasks

Gross motor skills: these are skills that use large muscles: riding a bike without training wheels, swimming, using scooters or skates, competing in sports, etc.

Cognitive skills: (the child now has an increased ability to focus and pay attention): reading, writing stories, solving math problems (concrete operations), developing hobbies (classifies objects), understanding conservation, increased ability with memorizing and learning complex material as they progress through school grades

Language Skills: Advancing and fine-tuning, understandable and adult-like in many ways, any language problems should be consulted with a speech pathologist, turning spoken words into written words, starting creative writing, learning grammar rules and can follow them, definitions and spelling words

Social skills: less egocentric and more concerned about others and their perspective (cares about what others think and how they can help out), loves peer activities and forms special friendships with the same gender (changes when they become teens), parents influence still a big part but they start to question it toward the end of this stage, competitive play (teams) and joining clubs where rules are important to follow Play style with others includes cooperative, competitive, physical, and constructive play with challenges. Also, I like doing things by self like reading, video games, collecting items, and board games.

Games you may see a school-age child playing: Simon Says, Charades, Hide and Seek, Tag, Basketball, board games, Hopscotch, jump rope, kick the can, etc.

Changes (body):

Height: Grows about 2.5 inches per year (major growth spurts will happen in teen years when puberty starts) average height is 45 inches for a 6-year-old and 59 inches for a 12-year-old

Weight: Gain about 4 ½ to 7 lbs. a year (average: 45 lbs. at 6 years to 90 lbs. by 12 years...depends on the child's genetics and other factors could be more or less)

Teeth: started losing baby teeth usually around 5 to 6 years (central incisors) and now permanent teeth start coming in (usually the central incisors). **Teething** technically doesn't end until adulthood with wisdom teeth coming in around age 21 (makes for 32 permanent teeth), but most of the 28 permanent teeth are done erupting by 12 to 13 years (therefore, at the end of this stage to the beginning of the next).

- Educate: Dental care is VERY important to prevent cavities, learning to develop habits of good oral hygiene (brush twice a day and floss daily), visiting the dentist every 6 months (twice a year), orthodontics if needed

The onset of puberty varies...girls tend to enter puberty earlier than boys. The onset of puberty for girls is between the ages of 8-13 years, while boys enter puberty around 9-14 years. Therefore, the child should be educated about puberty and the body changes that will occur.

Harmful Risks:

The school-age child is very active with other peers (some school-age children may want to show off or compete). Therefore, they need education about taking steps to stay safe during play. Educational topics include:

- Safe usage of bikes/scooters/skates (helmets and other protective gear)
- Swimming safety: avoid diving or deep-water dangers like undercurrents...always wear a life jacket (consider swimming lessons)
- Strangers: kidnapping tactics, not trusting a stranger, inappropriate touch (teach the child what is okay vs. what is not)
- Avoid dangerous objects: fire and guns (keep out of reach and locked up)
- Car and Traffic safety: wear a seat belt while riding in a vehicle
 - Most school-age children will be riding in a booster seat (state laws vary)
 - Example: some states say if the child is older than 8 years and at least 4'9 they no longer need a booster seat

Obstacles at this Age:

The school-age child is forming a self-concept during this time. They are asking themselves, “Who am I?” and “How do I fit in?” The parents play a role in this development as well as the school setting, which is majorly influenced by peer approval (accepted by others) and teachers (grades and feedback they get.... smart enough etc.). A poor self-concept leads to self-doubt, depression, and low self-worth.

- Tips for helping a child develop a good self-concept: be positive and highlight the child’s strengths, guide with setting obtainable goals (and praise when completed), care about their interests and help them grow in them, let them grow and when they mess up help them reflect back on what happened and how to improve next time
- Bullying: harming or intimidating a person
 - Most common setting is at school but can be outside of school or via social media “cyberbullying”.
 - Boys tend to be more physical while girls will tease, mock, or spread rumors.
 - Signs child is bullied: see physical injuries that child can’t explain very well, school items are missing, doesn’t want to go to school (fakes sickness), grades are poor, behavior changes (withdrawing, agitated, depressed), suicidal behavior
 - Get your child to open up about it (takes time), report it, don’t ignore it, but take an active part as a parent in getting it stopped (contact school, report to authorities, etc.) and let your child know you care

Weight: nutrition and exercise are very important in helping prevent childhood obesity... obesity leads to health problems like type 2 diabetes, hypertension, joint pain, and much more.

Remember the risk factors for obesity: **HEAVY**

- **H**igh caloric diet (limit junk food, fast food, sugary drinks)
- **E**xercise lacking (limit electronic activities and encourage to get outside and exercise)
 - “US Department of Health and Human Services, recommends that children and adolescents ages 6 through 17 years do 60 minutes (1 hour) or more of moderate-to-vigorous physical activity daily” (“Physical Activity Guidelines for School-Aged Children and Adolescents”, 2019).
- **A**ccessibility limited to healthy foods
- **V**iew food as a way to deal with stress
- **Y**our genetics and family dynamics (how family members eat, what’s prepared, exercise habits, and genetics affect how a person puts on weight)

Education on Managing or Preventing Obesity in a School-age Child:

- Make it a family effort (set obtainable goals and start slow)
- Replace junk food that child likes with creative healthy foods
 - Example: instead of candy serve vibrant tangy fruits, or baked sweet potatoes fries instead of French fries, pizza with low fat or plant-based cheese, turkey pepperoni, avoid sugary drinks (set limit), **avoid rewarding with food**, make exercise fun (bike trails, team sports)

Exposure to drugs, violence, and sexual content through media and school: listen to your child and pay attention to what they are exposed to (online, from friends, etc.), have an honest open line of communication with the child and talk about these issues when they come up and how to deal with them.

Will test the limits by telling lies, stealing, cheating

The outcome of Hospitalizations (Nurse’s Role)

The hospitalized school-age child can experience the following FEARS:

Fear of pain, injury (losing a body part or becoming deformed), death, losing independence/control (interruption to school routine, separation from family and friends), modesty: doesn’t like showing private parts

Nurse’s Role with the Hospitalized School-age Child: 7 T’s

Take time to let them to express fears

Talk about those fears and coping techniques to help maintain control

Truthful about procedures and tests

Teach with pictures, outlines, age-appropriate videos, and equipment and lay out how it will happen

Tactful with privacy (especially during procedures that expose privates) (modesty)
 Time is given for activities that help keep them distracted from sickness or upcoming procedures
 Their friends...keeping in communication with school friends is important

Learn Developmental Theories for School Age Child

Erikson's: **Industry vs. Inferiority**

The school-age child is very industrious and is yearning to accomplish things through developed skills they have acquired and mastered. Accomplishments give them a sense of satisfaction, and this causes them to feel confident, which makes them feel like a *competent* person in the world they live. Therefore, the goal from this stage is competency.

The main drivers in helping them develop this are competing (play/sports), school work, their parents, and peers.

However, the child must know that not everyone can accomplish or master every skill or task and this is okay. They just need to keep trying and focus on their other accomplishments.

Inferiority develops when the child feels like they aren't good at something or have limitations that prevent them from accomplishing it. This can lead to a lack of trying to accomplish and affect self-esteem.

Piaget's:

Preoperational stage until 7 years and then **concrete operations** start at 7 years until 12.

The school-age child is starting to think about how others view things and egocentric thought is decreasing (they know that other people have different thoughts).

They are concrete thinkers. They take a statement for exactly how it was said and don't think beyond it. They can't think abstractly yet.



They now have the ability to understand conservation. An example of this would be: there are two plates that are the same size with the same amount of food on them, but

when food from one plate is moved to a smaller plate a child without conservation thinking would think that the smaller plate had more food on it than the larger plate. However, a school-age child understands that the smaller plate has the same amount of food on it as the larger one and that the plate was just switched. In addition, they develop classification skills (can place items in a group based on similarities or like characteristics.... color, size, what it's used for, etc.)

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School-Age Child Growth and Development NCLEX Questions

1. The school-age child experiences many physical changes throughout this developmental time period. Which of the following is NOT a change experienced by this age group?
 - a. The child typically grows about 2.5 inches per year.
 - b. Most of the child's 28 permanent teeth will be erupted by the end of this developmental period.
 - c. The child's weight triples from the age of 6 to 12 years.
 - d. The child's gross motor skills allow them to ride a bike without training wheels, swim, and skate.

2. The nurse is assessing a 10-year-old's risk factors for obesity. Which findings assessed by the nurse are risk factors for obesity in this child? Select all that apply:
 - a. The child moderately exercises 1 hour each day.
 - b. The child has a diet rich in calories according to a weekly food diary.
 - c. The child's mother, father, and older sibling are obese.
 - d. The child has limited access to food options.

3. The nurse is developing a plan of care to help the school-age child and their caregiver implement diet changes to help decrease the child's obesity risk. Which intervention below should be avoided?

- a. Include the family members with setting weight and food goals
- b. Use a reward system that includes food rewards
- c. Substitute the child's favorite food with healthier options
- d. Consider team sports for the child

4. A 9-year-old arrives to the clinic for a well visit. What are some safety educational topics the nurse should discuss during this visit? Select all that apply:

- a. Rear-facing car seat safety
- b. Toxic substances ingestion prevention
- c. Bike safety
- d. Swimming safety
- e. Gun and Fire Safety
- f. SIDS Prevention

5. A 10-year-old is hospitalized for the treatment of a broken arm. The child is becoming restless and bored. The nurse asks the child if they would like to do an activity. Which activity below would be appropriate for the nurse to suggest to the child?

- a. Stacking blocks
- b. Writing poems
- c. Playing a card game
- d. Watching a movie

6. A 10-year-old is being prepped for heart surgery to replace a heart valve. What fears or stressors does the nurse anticipate this child could experience during this hospitalization?

- a. Fear of strangers
- b. Fear that the hospitalization is punishment for doing wrong
- c. Fear of pain/injury
- d. Invasion of privacy

7. Your patient is 7 years old. What stage of psychosocial development, according to Erikson's Theory, should this child be in?

- a. Autonomy vs. Shame and Doubt
- b. Initiative vs. Guilt
- c. Industry vs. Inferiority
- d. Identify vs. Role Confusion

8. According to Erikson's Stages of Psychosocial Development what is the outcome for the school-age child to obtain during this stage?

- a. Competency

- b. Trust
- c. Sense of Purpose
- d. Love

9. Fill in the blank: According to Piaget's Theory of Cognitive Development, a 10-year-old child would be in the _____ stage.

- a. Preoperational
- b. Concrete Operational
- c. Sensorimotor
- d. Formal Operational

10. A 7-year-old child is able to recognize that even though one glass is short while the other is tall they both contain the same amount of liquid. According to Piaget's Theory of Cognitive Development, the ability to reason this among the liquid in the glasses is known as?

- a. Classification
- b. Spatial-sense
- c. Conservation
- d. Representation

11. According to Kohlberg's Stages of Moral Development, what would be the reason for conformity to the rules for a 9-year-old child?

- a. The child conforms to the rules because of the rewards given for good behavior.
- b. The child conforms to the rules because it maintains social order.
- c. The child conforms to the rules because it provides a mutual benefit.
- d. The child conforms to the rules because it causes others to view them as being good.

Part 8: Adolescent (Teenager) Growth Development

The adolescent (also called the teenager) falls within the age range of 13 to 18-19 years. Before this time the child was considered a school-age child.

The adolescent is going through major physical, emotional, and cognitive changes. For example, when you look at a 13-year-old and then an 18 or 19-year-old, they should look different and be more mature with thinking abilities, skills, and more.

Adolescence can be a very challenging time for teenagers because they are trying to find their identity, maintain relationships, and deal with challenges the younger age groups don't experience.

In this review, we will be talking about skills, changes, safety issues, hospitalized adolescents, and more. Therefore, to help us remember all those important concepts, let's remember the word: **TEEN**

The BIG Changes: during this time the child is transitioning from a child to an adult physically and emotionally.

One of those BIG changes is *puberty*. Puberty is a time of rapid changes for the child's body along with emotional changes.

Puberty leads to the reproductive organs becoming active. This is the ovaries for girls and testes for boys. Once this occurs, it means that person has become sexually mature (hence capable of making offspring).

Girls and boys change differently. Girls typically enter puberty sooner than boys by about 2 years. Puberty tends to last up to 5 years and occurs in stages.

Therefore, based on the development of secondary sex characteristics (like the growth of pubic hair) and primary sex characteristic (breast or penis development), a 5-point scale can be used to help determine how far along a person is in the puberty period. This scale is called Tanner Stages and it goes from 1 to 5 (with 5 being completely mature).

This scale grades girl based on breast development and pubic hair growth, and boys by penis and scrotum growth and pubic hair growth.

Puberty in Girls:

Starts around 8-13 years (happens in stages)

- First sign of puberty is breast changes (with breast tissue developing). Other changes that occur are an increase in hair growth (armpits and pubic area).
- Increase in weight with the storing of fat on the stomach, butt, and thighs.... average 18-year woman weight in the U.S.: 125 lbs.
- Major growth spurts occur during puberty with an increase in height

- Depending on the girl's genetics and other factors, they can grow up to 8 inches throughout the teen period
- Average 18-year woman in the U.S.: 64 inches...5' 4"
- *Girls tend to stop increasing in height 2 years after the onset of menstruation*
- Hips widen
- Skin changes with the activation of sebaceous (oil glands) and apocrine glands (sweat glands) which leads to the development of zits and body odor.
- Menstruation happens about 2-3 years after puberty has started
- Emotional changes: active hormones in the body like estrogen can lead to crankiness, sensitivity, outbursts, and agitation

Puberty in Boys:

Starts around 9-14 years (happens in stages)

- Enlargement of penis and testes
- Increase growth of hair in the pubic area, armpits, chest, legs, arms, and face
- Changes in voice (Adam's apple in neck...larynx enlarges)
- Increase in muscle mass (increase in weight)
 - Average weight for an 18-year-old male in the U.S.: 147.5 lbs.
- Can increase to almost a 1 foot in height during this time period depending on genetics and other factors
 - Average height for 18-year-old male in the U.S.: 69.3 inches...5'9"
 - Can keep growing until around 20 years
- Skin changes: activation of sebaceous glands leading to zits and apocrine glands leading to body odor
- Emotional changes: active hormones in the body like testosterone can lead to moodiness and agitation

Other changes for teens:

Teeth: the younger age groups are erupting teething and losing teeth. However, the adolescent is almost done with erupting teeth so they have around 32 permanent teeth. All that is left to erupt are the second molars which erupt in 13 years, and then around 17-21 years the wisdom teeth start erupting.

Many adolescents have braces to correct crowding issues and other orthodontic needs. Therefore, educate them about regular dental visits (twice a year...every 6 months), the importance of brushing twice a day, and flossing daily.

Social: Peer influence is now a major part of their life. The activities they do are usually around peers, and they like to communicate constantly via text messaging, social apps,

and phones. They also like surfing the internet, working at jobs, watching movies, and playing sports.

The adolescent is separating from their parents (challenging their authority) and yearning for independence. The parent and child relationship will be strained at times, but once the child becomes an adult and matures, the relationship will become closer. It's important the teen is able to branch out and find their identity.

Now, due to all these changes listed above and major peer influences, body image can be affected. If the teen has a negative body image it can lead to low self-esteem and self-concept, which can manifest as depression, eating disorders, and more.

The teenager will compare their physical changes due to puberty to their peers. And unfortunately, teens are faced with more challenges than previous generations with this because of media, especially social media. Social media gives a false perception of what is real vs. filtered.

Furthermore, it's important to note that this isn't just a girl thing boys can also struggle too.

To help confirm this analysis, an article by *Mayo Clinic* talked about how social media affects teenagers. It says:

“A 2015 study found that social comparison and feedback-seeking by teens using social media and cellphones were linked with depressive symptoms.” (Mayo Clinic 2022)

It's important to help the adolescent with developing a positive body image. Some educational points to help with this include:

REAL

Role model for your teen: have a positive body image yourself, make it important to be healthy rather than a certain weight or look, and explain how you may have struggled as a teen too

Eating Disorder Signs: anorexia (won't eat, losing weight, obsessed about exercise, negative about self) or bulimia (consuming a lot of food and then throwing up afterward, using laxatives)

Avoid the media trap: have rules for social media, and talk to the child about how not everything you see on T.V. or in magazines is how people look

Love your child: praise and build up, help them feel confident, don't concentrate on their looks or other people's looks but their qualities

Education for the Adolescent

Adolescence can be a dangerous time because the teen has an adult-like body with amazing strength and endurance, but they are still maturing. They may engage in risky activities because of peer pressure, inability to completely understand consequences and the feeling that “it won’t happen to me”.

During this time (around 16 years), the teen is allowed to drive. Unfortunately, according to CDC.gov:

“Motor vehicle fatality is the leading cause of accidental death among teenagers, representing over one-third of all deaths to teenagers.” (CDC.gov)

Therefore, it’s essential the teen participates in a driving course and is educated about always wearing a seat belt, not texting or cell phone usage during driving, never driving under the influence, not speeding or drag racing, etc.

Other safety concerns for the teen include: self-harm

UCLA Health reported in a recent article in March 2022 that:

“Suicide is the second-leading cause of death among people age 15 to 24 in the US.” (Cohen, S., 2022)

Assess for signs of risk of suicide:

- leaving messages on social media or hints that they want to die
- telling people goodbye
- suddenly quit socializing
- outburst of anger or depression
- giving away things they own
- have a plan (written it or shared it)
- recent traumatic event (death, bullied, rejection)

Get them to help immediately via a mental health facility.

More education: substance abuse, sexual activity (education on sex is needed), swimming safety (drowning is another risk for death and diving injuries), using protective equipment in sports and physical activities (like the school-age child), firearms (locked up), gangs

Health Education:

Nutrition: increased time for growth especially during puberty and needs many minerals and nutrients to help facilitate the growing body

Educate on diet high in calcium to support bone growth, iron, protein, folic acid, zinc, fiber, and vitamin D

Reasons for poor nutrition in the teen:

- life becomes busy with activities, friends, and other commitments
 - it's easier to eat foods that are high in calories and have no nutritional value
- parent influence on food choices is limited
- prefers to drink what peers are drinking like soft drinks, energy drinks or coffee-type products (less intake of milk and water)
- social eating with peers (typically not healthy but tasty)
- body image poor (skips meals thinking this will help with weight loss, overeats to cope with stress leading to obesity)

Assess BMI by measuring height and weight:

- underweight: BMI less than the 5th percentile for age, height, and gender
- normal: BMI is 5th percentile or greater but not higher than 85th percentile
- Overweight: BMI is 85th percentile or greater but less than 95th percentile
- Obese: BMI is 95th percentile or greater

Exercise: teens should exercise 1 hour or more every day that is moderate to vigorous

Sleep 8-10 hours per night.... very important because not enough sleep can lead to obesity, poor mental health, and behavior problems (exposure to screen light can affect sleep, therefore, avoid this light before going to sleep and the need for a schedule for bedtime to avoid staying up late)

Erikson's, Piaget, and Kohlberg's Theories

Erikson's Stage of Psychosocial Development:

Identity vs. Role Confusion

The independence they now have allows them to figure out their identity. They're trying to figure out the statement, "This is who I am". Once they figure this out, it will drive them in their future relationships, pursuits of career, and other goals.

What helps them figure this out is getting involved in social relationships and other experiences that help them grow and explore. This will guide them in their ability to figure out who they are and what they want to do in life.

The goal of this stage is the formation of *fidelity*: *Fidelity is a commitment or faithfulness to obligations*. Therefore, once they have an identity, they can be a productive, stable person in society who is faithful in their duties.

If this isn't achieved, role confusion can happen. This is where the teen is unsure of who they are, what they like, how they fit into the world and unsure about their future. They will drift around in educational, relationship, and career pursuits.

Piaget's Theory on Cognitive Development:

Formal Operational

12 years old to adulthood

The teen has the ability to think abstractly and can see other possible outcomes. They can look at how things can play out based on decisions or events to a certain point (this ability further develops in adulthood).

They can start planning for the future and analyze how the decisions they make can affect them and others around them (cause and effect). Solve problems by developing potential ideas or solutions for problems (hypothesizing) and manipulating scenarios or ideas in mind to solve something without having to see it.

Nurse's Role for the Hospitalized Adolescent

Fears:

- Separation from peers (not around them so they may be rejected)
- Loss of control (act out, refuse, anger)
- Privacy invaded
- Death, Deformity (affect body image)

Interventions

- Open and honest
- They hide their feelings and questions... try to answer questions they would have but not ask you
- Give them control in decisions and activities (eating, wear, and routines)
- Encourage social activities in the recreation room, if possible
- Maintain privacy
- Teach with videos, diagrams, photos

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Adolescent Growth and Development NCLEX Questions

- 1. Tanner Stages can be used to help determine an adolescent’s stage of puberty. You have a 13-year-old female patient. What information does the nurse need to collect in order to use this scale for puberty determination? Select all that apply:**
 - a. pubic hair growth
 - b. hip girth
 - c. age of menarche
 - d. breast development
 - e. BMI

- 2. What change during puberty typically happens first for girls?**
 - a. pubic hair growth
 - b. increase in fat on abdomen and thighs
 - c. widen hip girth
 - d. breast development

- 3. Which statement below is false about the puberty changes for the adolescent?**
 - a. Males can keep growing in height until about 20 years of age.
 - b. Due to the activation of the apocrine glands, acne can develop in the teenager.
 - c. Females stop increasing in height about 2 years after the onset of menstruation.
 - d. Females tend to start puberty 2 years earlier than males.

4. A 15-year-old patient is struggling with body image. The patient verbalizes they are not happy with how they look and feel “ugly”. The nurse knows what factors below can affect an adolescent’s body image. Select all that apply:

- a. Peers
- b. Puberty changes
- c. Media
- d. Competitive sports

5. True or False: The leading cause of accident death among teenagers is due to motor vehicle accidents.

6. The mental health nurse is assessing an adolescent patient for signs of risk of suicide. Which statement by the patient requires immediate intervention?

- a. “I’m so tired lately.”
- b. “I’ve got out a plan on how to get out of this life.”
- c. “People are such a drain on my life.”
- d. “All I do is make a mess for everyone.”

7. A 14-year-old male has a BMI (Body Mass Index) of 70th percentile based on their age, height, and gender. How would the nurse interpret this BMI for this patient?

- a. Underweight
- b. Normal
- c. Overweight
- d. Obese

8. The nurse is providing education to the adolescent on sleep practices. Which statement by the adolescent demonstrates they need re-education on this topic?

- a. “I need around 8-10 hours of sleep per night.”
- b. “Surfing my phone at night helps me fall asleep.”
- c. “I always go to bed at 8 pm and wake up at 6 am.”
- d. “I don’t drink caffeinated products anymore.”

9. According to Erikson’s Stages of Psychosocial Development, the adolescent is in the _____ vs. _____ stage with a goal to develop _____.

- a. Identity vs. Role Confusion; fidelity
- b. Industry vs. Inferiority; competence
- c. Intimacy vs. Isolation; fidelity
- d. Initiative vs. Guilt; purpose

10. A 15-year-old patient is hospitalized for treatment of cancer. The patient has started to refuse medications and other treatments. In addition, the patient is yelling and screaming at staff. This patient may be experiencing what type of fear is associated with this age group?

- a. Separation Anxiety

- b. Loss of Control
- c. Invasion of Privacy
- d. Fear of death

11. What interventions below should the nurse implement to help the adolescent cope with prolonged hospitalization? Select all that apply:

- a. Allow the patient to wear their own clothes.
- b. Reassure the patient that procedures are not meant as punishment.
- c. Restrict visitors to family members.
- d. Encourage the patient to participate in recreational room activities.

12. The adolescent patient can now think abstractly and see other possible outcomes. In addition, they can start planning for the future and analyze how decisions affect them and others. According to Piaget's Theory on Cognitive Development, the adolescent is in what stage?

- a. Sensorimotor
- b. Preoperational
- c. Concrete Operational
- d. Formal Operational