

4- Preschool Stage

Introduction:

The combined biologic, psychosocial, cognitive, spiritual, and social achievements during the preschool period prepare preschoolers for their most significant change in live style entrance into school. Their control of bodily system, experience of brief and prolonged periods of separation, ability to interact cooperatively with other children and adults, use of language for mental symbolization and increased attention span and memory ready them for the next measure period the school years. Successful achievement of previous levels of growth and development is essential for preschoolers to refine many of the tasks that were mastered during the toddler years.

Definition: It is the stage where child is 3 to 6 years of age. The growth during this period is relatively slow.

Physical Growth:

1. Weight:

The average weight gain remains approximately 2.3 Kg/year. Advanced pediatric life support (APLS) course, estimates the weight of a child between 1 and 10 years. This APLS formula is given by:

$$\text{Weight (in kg)} = 2 \times (\text{age in years} + 4)$$

Or Formula to calculate normal weight of children over 1 year of age is

$$(\text{Age in years} \times 2) + 8 = \dots \text{kg.}$$

2. Height:

During this period, the child gain 4.5-5 cm/ year. By 4-5 years the preschool child doubles birth length.

Formula to calculate normal height:(Age in years X 5) + 80 =....cm.

Physiological Growth:

- 1. Heart Rate:** 80 - 120 beat/min (average 100 beat/min).
- 2. Respiration:** 20 – 30 cycle/minutes.
- 3. Blood Pressure:** 100/67 + or - 24/25 mmHg

Motor Development:

- **Age 3rd years:**

Gross:

- Walks a straight line, backward and on tiptoes.
- Catches ball with extended arms.
- Kicks a ball.
- Rides tricycle-using pedals.

Fine:

- Build a tower of 9 - 10 blocks.
- Copies a circle.
- Use scissors with one hand.
- Can undress himself.
- Can put on coat without assistance.
- Put beads on string.

- **Age 4th years:**

Gross:

- Runs on tiptoes.
- Hops on preferred foot.
- Alternate feet when descending stairs.
- Jumps from greater heights.
- Climbs from greater heights.
- Catches ball with extended arm and with hands.

Fine:

- Copies square and draw a simple face.
- Cuts around picture with scissors.
- Buttons side and small buttons.
- Bathes himself with assistance.

- **Age 5th years:**

Gross:

- Walks a balance beam.
- Skips while alternating feet.
- Jumps rope and over objects.
- Catches a ball smoothly with hands.

Fine:

- Copies a triangle and letters.
- Able to lace shoes, manages zipper in back.
- Bathes self and combs hair with help.
- Can blow nose when asked

Language Development:

- **3rd year:**

- Vocabulary of 800 - 1000 words.
- Uses 4 words sentences.
- Ask why.

- **4th year:**

- Vocabulary of 1500 words.
- Uses 3 to 7 words sentences.
- Uses "I" in his speech.

- **5th year:**

- Vocabulary of 2100 words.
- Asks for the meaning of words.
- Repeats sentence of 12 or more syllables

Cognitive Development:

According to Piaget theory the preschool age child continues in the preoperational phase, preoperational thought dominates during this stage and is based on self centered understanding of the world in the preconceptual phase of preoperational thought, the child remains egocentric and is able to approach a problem from a single point of view only the young preschool may understand the concept of counting and engage in fantasy play.

- The preschooler though, reason in a transductive manner (from particular to particular) for example, Piaget found that his daughter believed that since his shave required hot water the appearance of hot water meant that daddy would shave.

- There are a number of limitations in this stage, though children can't understand conservation problems for example, when a preschooler was asked whether he had a sister, he answered yes when asked his sister had a brother, he replied no.

Magical thinking is a normal part of preschool development. The fantasy experienced through magical thinking allows the preschooler to make room in his or her world for the actual or the real through make-believe and magical thinking. Preschool children satisfy their curiosity about differences in the world around them.

Imaginary friends as well as this friend serve as a creative way for the preschooler to sample different activities and behaviors and practice conversational skills. The preschooler is able to switch easily between fantasy and reality throughout the day.

Preschoolers are transitioning to the intuitive phase, where they begin to be able to give reasons for their beliefs and actions, but not true cause-effect relationships. E.g. he may say: "It is not morning because I didn't eat breakfast".

The child in the intuitive phase can count 10 or more objects, correctly name at least four colors and understand the concept of time and he or she knows about things that are used in everyday life such as appliances, money, and food.

The preschooler uses transduction when reasoning. He or she extrapolates from a particular situation to another. The acquisition of language skills in the toddler period is enhanced in the preschooler period; the expansion of vocabulary enables the preschooler to progress further with symbolic thought.

At this stage children do not completely understand the concept of death or its permanence they may ask when their grandparent or pet who died is returning

Pre-operational children are usually 'ego centric', meaning that they are only able to consider things from their own point of view, and imagine that everyone shares this view. Gradually during this stage, a certain amount of 'decentering' occurs.

'**Animism**' is also a characteristic of the Pre-operational stage. A reason for this characteristic of the stage is that the pre-operational child often assumes that everyone and everything is like them. Therefore since the child can feel pain, and has emotions, so must everything else. An example of this is that children often believe that a car won't start because it is tired or sick, or they punish a piece of furniture when they run into it, because it must have been naughty to hurt them.

Emotional Development:

- Fears the dark.
- Tends to be impatient and selfish.
- Expresses aggression through physical and verbal behaviors.
- Shows signs of jealousy of siblings (it is called sibling rivalry)

Social Development:

- Egocentric in his thought and behavior, unable to see others' viewpoints.
- Tolerates short separation from parents by 3 years and separates easily by 5 years of age.
- Less dependent on parents but needs their reassurance and help.
- May have dreams and nightmares.

- Demonstrates strong attachment for parent of opposite sex.
- More cooperative in play.
- The preschooler is in the stage where he develops a sense of initiative; where he wants to learn what to do for himself, learn about the world and other people. If he fails to achieve this sense of initiative, he will develop a sense of guilt, where he will appear anxious and frightened in his contact with others

Spiritual Development:

- Children's knowledge of faith and religion is learned from significant others in their environment, usually from parents and their religious practices.
- Preschoolers have a concrete conception of a God with physical characteristics who is often like an imaginary friend.
- Development of the conscience is strongly linked to spiritual development.
- At this age children are learning right from wrong and behave correctly to avoid punishment.
- Wrong-doing provokes feelings of guilt, and preschoolers often misinterpret illness as punishment for real or imagined transgressions.
- It important that children view God as one who bestows unconditional love, rather than as a judge of good or bad behavior.
- Praying to God and observing religious traditions can help children through stressful periods, such as hospitalization.

Moral Development:

- The preschooler is in the Preconventional or Premoral level, where there is little, if any, concern for why something is wrong.

- The 3 years old child is in the stage of punishment and obedience orientation.
- The 4 to 7 years old child is in the stage of naïve instrumental orientation, in which actions are directed toward satisfying their needs and less commonly, the needs of others.
- They carry out rules to satisfy him or what others might do it if he did not carry them out.
- The preschooler has a very concrete sense of justice

Development of Body Image:

- This stage plays a significant role in body image development.
- In this stage, the preschooler increasing comprehension of language leads to understanding the desirable and undesirable appearance.
- The preschooler at age 5, compares his size with peers and become conscious of being short or large, especially if others refer to him as "so little" or "so big" for his age.
- But the preschooler has poorly defined body boundaries and little knowledge of his internal anatomy

Psychosexual Development:

- Sexual curiosity between boys and girls occurs, with importance attributed to the anatomic differences between the sexes.
- Also during this time children are extremely curious about where babies come from.
- Questions about sex should be answered by parents in a simple way according to the child's level of understanding. If there are

household pets, children learn early about the reproductive process and where the children come from.

- "Masturbation" in preschoolers is normal behavior, allowing them to explore themselves. As their curiosity is channeled in other directions it will decrease.
- Parents who focus a great deal of attention on this activity may find that it increase and that this may become an area for continuing parent-child conflict

Needs of Preschool

1. Play:

- "Imaginary playmates" are so much common of this age period. They serve many purposes as they become friends in times of loneliness and they accomplish what the child is still attempting. Children give up these friends when the group's play establishes at school.
- Television has its place in children's play. Supervised selection of programs and scheduled hours of the day is needed by the parents, so that children can enjoy and learn from educational children's programs

2. Drawing:

- Drawing shows several advancements in the perception of shape and the development of fine muscle coordination.
- The triangle and diamond are usually the last geometric figures to be mastered, sometime between ages 5 and 6.

3. Nutritional Guidance:

- Nutritional requirements for preschoolers are similar to those for toddlers. The requirement for calories per unit of body weight continues to decrease slightly.
- Protein consumption is about 30 gm/day. Fluoride should be given daily, but other supplemental vitamins are not necessary during this period

4. Safety and Security:

- Because of improved gross and fine motor skill, coordination and balance, preschoolers are less prone to falls than toddlers. They listen more to parental rules and are aware of potential danger such as hot objects, sharp instruments and dangerous heights.
- Emphasis is now on education for safety and protection. Parents should set a good example in applying safety measures, as preschoolers are great imitators

5. Nursery School:

- In nursery school or day care center, children are exposed to opportunities for learning group cooperation and coping with frustration and anger.
- Nursery school provides stimulation for language, physical, and social development and prepare the child for school

6. Sex Education:

- Although their thinking may not be mature, they search constantly for explanations and reasons that are logical and reasonable to them.
- Two rules govern answering sensitive questions about sex,
- The first is to find out what children know and think, by investigating the theories children have produced as a reasonable explanation. Parents can not only give correct information but also help children understand what their explanation is not correct.
- The second rule is honesty. Honesty does not mean imply to children every fact of life or allowing excessive permissiveness in sexual curiosity.
- At about 3 years of age children are aware of the anatomic differences between the sexes and are very concerned with how the other works.
- Little boys wonder how girls urinate without a penis, so they watch girls go to the bathroom. Little girls are no less curious about the boy's anatomy, they are winder to have a closer inspection of this thing they don't have.

7. Sleep and activity:

- The preschoolers require an average of 10 to 12 hours of sleep in 24 hour period.

8. All preschoolers are likely to experience sleep problems. Early in preschool period there is a difficulty to put the child in his bed, later the child may develop walking during the night. Both of this are normal development phenomena but may lead to problems.

9. Dental Health:

- Nurses play an important role in the promotion of dental health by teaching proper tooth cleaning and the importance of adequate fluoride ingestion.
- Preschooler can usually brush their teeth and should be encouraged to do so at least once a day, especially at bed time.
- Parents should monitor the child's tooth brushing and inspect the child's teeth to be sure that all plaque has been removed.
- The child should see the dentist by age 3 years with visit every 3-6 months.

Health Problems of Preschool

1. Stress:

Short-term behavioral changes in sleep patterns, or bedwetting — can be indications. Some kids experience physical effects, including headaches. Still others become withdrawn or spend a lot of time alone. Younger children may pick up new habits like thumb sucking. A child who is stressed may also have nightmares, difficulty leaving you.

2. Thumb-Sucking:

- Sucking is the infant's chief pleasure and may not be satisfied by breast or bottle feeding. It is such a strong need that infants who are deprived of sucking, such as those with a cleft lip repairs, will suck on their tongues.

3. Enuresis:

- Enuresis is a common and troublesome disorder that is defined as intentional or involuntary passage of urine into bed (usually at night or into clothes during the day in children who are beyond the

age when voluntary bladder control should normally have been acquired.

4. Encopresis:

- Repeated voluntary or involuntary passage of feces of normal or near normal consistency in place not appropriate for that purpose.

5. Child abuse:

- There are different types of child abuse:
- Parent's violence, which may be by training, throwing, or knocking the child around or twisting his extremities. They may include largely bruises, scratches, hematomas, etc.
- Sexual abuse, sexual aggression against the child may include assault by a stranger, or a known person.
- Neglecting, it is chronic failure of adult to protect the child from obvious physical danger of malnutrition are usually present.

6. Poisoning:

- Corrosives (Strong Acids or Alkali).
- Hydrocarbons.
- Lead poisoning.
- Aspirin.
- Plants.

7. Communicable Disease:

An illness caused by a specific infectious agent or its toxic products through a direct mode of transmission of that agent from a reservoir.